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EDUCATION

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THE SUPERINTENDENT OF EDUCATION FOR

NOVA SCOTIA.

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APRIL, 1910.



Published by Order of the Legislature of Nova Scotia.

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**To Teachers employed in the Public Schools  
for the half year ended, Feb. 4th, 1910.**

*The Asterisk (\*) marks those employed  
in Poor Sections.*

Name	Number of Teaching Days employed.	Am't paid to Teach- ers from Provincial Treasury.	Am't paid to Teach- ers from Provincial Treasury.
ANNAPOLIS.			
Lyons, Nellie B.	96	84	72
Magee, Wm. H.	96	98	84
Ruggles, Lenfest	102	105	00
Atwood, Alice J.	102	60	00
Baleom, Irene C.	97	57	06
Banks, Beriah S.	102	60	00
Banks, Wilford E.	102	75	00
Bishop, Annetta, C.	102	60	00
Burbidge, Josephine G.	102	60	00
Bustin, Harry L.	102	60	00
Chipman, Enma W.	102	60	00
Chute, Frances L.	82	48	23
Corkum, Inez B.	73	42	94
Cossett, Ethel J.	102	60	00
Crisp, Wm. K.	97	57	06
Eaton, Ethel M.	102	60	00
Elliott, Ora B.	101½	59	70
Gesner, P. Agnes.	102	60	00
Gilliatt, M. Esther	102	60	00
Gilliatt, Mary L.	102	60	00
Graves, Ena E.	102	60	00
Hardwicke, Helen M.	102	60	00
Harris, C. Louise.	97	57	06
Hunt, G. Edgar.	102	60	00
Lockward, Grace E.	101	59	41
Long, Alma C.	102	60	00
Longley, Ella F.	102	60	00
Longley, Annie M.	20	11	76
Longley, Reginald A.	58	34	12
Martin, Jennie V.	102	60	00
McGill, Flora M.	101	59	41
McGill, George B.	97	99	85
McGregor, Ruperta.	102	60	00
McMillan, Nellie.	97	57	06
McMurtery, Haidee P.	59	34	71
McWhinnie, Lizzie.	102	60	00
Messinger, Wm. S.	67	39	41
Moore, E. Blanche.	102	60	00
Morse, Edith M.	97	57	06
Roy, Lida J.	97	57	06
Spinney, Hattie S.	102	60	00
Spinney, Theo. H.	102	60	00
VanBuskirk, John L.	102	60	00
Walker, Charlotte E.	99	58	23
Woodbury, Mabel M.	102		60 00
Woodward, Lola M.	102		60 00
Woodworth, B. May.	102		43 88
Anderson, Eunice M.	99½		45 00
Banks, Almeda M.	102		45 00
Bent, Blanche J.	102		6 17
Bertaux, A., Josephine.	14		45 00
Bowlby, L. May S.	102		45 00
Brown, Mertie B.	102		42 12
Buckler, Emily J.	95½		45 00
Chesley, Ella M.	102		45 00
Chute, Flossie H.	102		45 00
Corning, Nellie R.	102		45 00
Crowe, Bessie H.	102		45 00
Dakin, Ellery, G.	102		35 28
Denton, B. Mildred.	80		45 00
Ellis, Florence M.	102		45 00
Foster, L. Winnifred.	102		45 00
Gaul, Ethel.	102		45 00
Gesner, Annie I.	102		45 00
Hoyt, Bessie G.	102		45 00
Jackson, Annie L.	102		19 40
Kepton, Susie W.	44		6 11
Kinney, Rowena J.	100		22 05
Lee, Ena B.	14		45 00
Lougley, Annie G.	50		44 56
Longmire, Rosa T.	102		42 78
McCormack, Albert E.	101		21 38
Mills, Hattie G.	97		44 78
Morse, Nellie C.	48½		45 00
Nichols, Leon L.	101½		45 00
Oakes, Cynthia L.	102		45 00
Payson, Mary P.	102		29 98
Perry, Lydee S.	102		25 57
Phinney, Josephine W.	68		42 78
Purdy, Ethel M.	58		45 00
Roy, Maud E.	97		45 00
Ruggles, Florence L.	102		42 78
Runsey, Clara I.	102		45 00
Smith, B. Evelyn.	97		45 00
Sproule, A. DeLila.	102		45 00
Spurr, Annie M. W.	102		45 00
Spurr, Hortense, V. B.	102		45 00
Starratt, Mildred M.	102		45 00
Stevenson, Margaret B.	102		45 00
Thorne, Alice E.	102		45 00
Troop, Bessie L.	102		42 78
Ward, Mary J. S.	102		45 00
Whitman, Minnie C.	97		36 16
Woodman, Edith E.	102		30 00
Wotton, Jennie R.	82		30 00
Adams, Mildred L.	102		30 00
Andrews, C. Lester.	102		28 83
Armstrong, Georgie E.	98		34 51
Baker, Hallie J.	88		26 62
*Baltzer, Annie B.	90½		1 47
Banks, Ida B.	5		40 00
Beardsley Joseph D.	102		29 71
*Berry, Ella M.	101		40 00
Bowlby, Jessie I.	102		22 94
*Brinton, Birdie P.	78		30 00
Brooks, Estella M.	102		30 00
Caldwell, Lola I.	102		25 59
Charlton, Mabel E.	87		18 43
Crowell, Iona M.	47		
*Denton, E. May.			

*DeVany, Grace D.	102	40 00
Doane, Estella S.	23	6 76
Durland, Bessie R.	102	30 00
Fairn, Bessie C.	80	23 53
*Frellick, Myra M.	102	40 00
Gesner, Edward D.	98	38 43
Grover, Jeanette M.	102	30 00
Harris, Lucy E.	100	29 41
Hayes, Evangeline.	101½	29 85
*Hebb, Maud G.	91	35 68
Hiltz, Cora E.	100½	29 56
Jackson, Lena M.	102	30 00
McMurtery, Mildred E.	37	10 88
*Mitchell, Sarah J.	62	24 31
Parker, Hettie E.	102	30 00
Phinney, Annie M.	102	30 00
Robinson, Stewart I.	102	30 00
*Ruggles, Annie B.	102	40 00
Schaffner, Margaret B.	4	1 17
Sproule, Lena M.	20	5 88
*Todd, Lloyd L.	102	40 00
*Trimper, Catherine.	54	21 17
*West, Margaret O.	102	40 00
Wheeler, Mildred E.	102	30 00
*Whitman, Annie S.	78	30 59
*Whitman, Viola B.	69	27 06
Whitman, Viola B.	20	5 88
Winchester, Ruth H.	102	30 00

ANNUITANTS.

Shaffner, Samuel C.	75 00
Brown, Alfred D.	60 00
Munro, Henry.	60 00
Vidito, Helen A.	60 00
Jones, Watson C.	45 00
Saunders, Arthur W.	45 00

ANTIGONISH.

Boyd, Donald D.	86	75 90
McLeod, John W.	86	75 90
McLeod, Anna E.	97	85 59
Sister St. Leonard.	102	90 00
Sister St. Thomas.	102	75 00
Tompkins, James J.	86	88 55
Chisholm, Wm. J.	102	60 00
McAmis, Katie.	97	57 06
Macdonald, Mary C.	102	60 00
McKenzie, Dan J.	102	60 00
Somers, Alex. M.	102	60 00
Sister M. Leonora.	102	60 00
Taylor, Maud L.	102	60 00
Campbell, Libbie.	102	45 00
Chisholm, Christina.	102	45 00
Chisholm, Dan M.	102	45 00
Cameron, Wm. D.	101	44 56
Kennedy, Janie	102	45 00
Kirk, Gertrude B.	99	43 66
Macdonald, Mary C.	102	45 00
Macdonald, A. T.	101	44 56
Macdonald, Theresa.	93	41 01
Macdonald, Margaret J.	102	45 00
McKenzie, Gertrude.	102	45 00

McKeough, Anna.	101	44 56
McNeil, Florence.	102	45 00
McNeil, Margaret.	102	45 00
McPherson, John A.	102	45 00
McPherson, Alex.	90	39 69
Rogers, William J.	78	34 40
Sister St. Camillars.	102	45 00
Sister St. Walburga.	102	45 00
Sister St. Hugh.	102	45 00
Sister M. Dionysia.	102	45 00
Sister M. Irene.	102	45 00
Young, Julia Florrie.	97	42 78
Barrigan, Lila.	101	29 71
Chisholm, Margaret A.	102	30 00
Chisholm, Edmund A.	102	30 00
Chisholm, Catherine M.	93	36 47
Cameron, Jennie.	101	29 71
Cameron, Dan A.	88	34 51
Campbell, Mary.	102	30 00
Connors, M. Clarence.	102	30 00
Fraser, William.	57	16 76
Fitzgerald, Annie.	102	30 00
Gillis, Margaret.	96	28 24
Gillis, Margaret.	97	28 53
Gillis, Sarah.	93	36 47
Gillis, Sarah Belle.	102	30 00
Gillis, May.	89	26 18
Hurst, Essie.	93	36 47
Hay, Mary Ann.	51	20 00
Leydon, Anastasia.	102	30 00
Levandier, William R.	100	29 41
Martin, Ellen.	97	38 04
McArthur, Janet.	102	30 00
Macdonald, Mary C.	99	29 12
Macdonald, Anna Belle.	92	27 06
Macdonald, Annie J.	102	30 00
Macdonald, Eva.	102	30 00
Macdonald, Laura B.	102	30 00
Macdougall, Florence M.	101	29 71
McEachern, Elizabeth.	102	30 00
McGillivray, Mary.	102	30 00
McGillivray, Mary A.	102	40 00
McGillivray, Marcella.	102	40 00
McGillivray, Bessie A.	14	5 48
McGillivray, Mary.	97	28 53
McGillivray, Margaret.	19	5 59
McGillivray, Gertrude.	87	25 59
McIntosh, Gertrude.	93	36 47
McInnis, Margaret.	93	36 47
McLean, Mary B.	101	29 71
McLean, Katherine.	102	30 00
McNeil, Vincent.	93	27 36
McPherson, Lauretta.	88	34 51
Purcell, Margaret E.	102	30 00
Sutton, Katherine E.	97	28 53
Stewart, Laura J.	71	27 84
Somers, George T.	90	35 29
Sister St. Thomas de S. C.	102	30 00
Sister St. Helen.	102	30 00
Consolidated section	102	30 00

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Chisholm, Alexander.	75 00
Gillis, Angus.	60 00
McGillivray, Andrew.	60 00

Boyd, Angus A.	45	00
Bonin, John B.	45	00
Fraser, William.	45	00
Macdonald, Donald.	30	00

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McPherson, Hugh.	86	50 58
Coady, Moses J.	86	25 30
Kiely, James M.	86	25 30

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Davidson, Milton D.	102	105 00
Dodds, Agnes A.	90	66 17
Haverstock, W. Ernest.	102	103 00
Keating, Florence M.	97	71 32
McKenzie, George W.	97	99 85
MacRae, Mary I.	97	57 06
Matheson, Duncan M.	92	81 18
Trask, James L.	97	85 59
Archibald, John T.	102	60 00
Arsenault, M. Teresa.	102	60 00
Bishop, Emma E.	97	57 06
Boutilier, Theresa.	102	60 00
Bown, Eleanor F.	102	60 00
Bruce, Harriet S.	97	57 06
Cameron, Charlotte A.	102	60 00
Campbell, Lizzie M.	102	60 00
Carson, Teresa B.	83	48 82
Crowell, Annie E.	97	57 06
Curry, Delila Pearl.	101	59 41
Dawson, J. Arthur.	102	60 00
Doyle, Cecilia J. M.	101	59 41
Edgecombe, Ethel L.	102	60 00
Fife, Annie M.	99	58 23
Fulton, Edith Irene.	97	57 06
Fulton, Elora A.	97	57 06
Fulton, Mary E.	84	49 40
Gates, Lena M.	102	60 00
Gillis, Simon P.	101	59 41
Goode, Myrtle M.	97	57 06
Grant, Jessie M.	101	59 41
Gray, Gracie L.	97	57 06
Greenwell, Bertha L.	102	60 00
Gunn, Annie.	102	60 00
Haverstock, Alice M.	102	60 00
Hawkins, Viola S.	102	60 00
Herdman, William C.	102	60 00
Kerr, Mary E.	97	57 06
Kilpatrick, Hattie.	102	60 00
Kinley, Florence.	102	60 00
Knickle, Charles.	102	60 00
Lawley, James H.	102	60 00
Lewis, Florence O.	102	60 00
Macdougall, Jean.	97	57 06
Macdougall, Jessie L.	102	60 00
McDougall, John.	97	57 06
Macintosh, Anna B.	97	57 06
McKay, Katherine.	97	57 06
MacKinnon, Mary.	97	57 06
McLean, Christena.	102	60 00
McLean, Tina.	23	13 53

MacLennan, Florence B.	97	57 06
McMillan, Sadie N.	102	60 00
MacNeil, Jennie E.	97	60 00
Moore, Andrew K.	102	60 00
Morrison, Alexander B.	102	45 88
Morrison, Eva J.	78	57 06
Parker, Lillian C.	97	57 06
Schurman, Sadie.	97	58 82
Simpson, Annie O. P.	100	31 77
Sister M. Alonzo.	54	67 65
" " Amabilis.	98	60 00
" " Ambrosia.	102	59 41
" " Andrea.	101	59 41
" " Annette.	101	60 00
" " Clarissa.	102	59 41
" " Cleophas.	101	60 00
" " Concepta.	102	60 00
" " Edwina.	102	60 00
" " Gerard.	102	59 41
" " Josita.	101	60 00
" " Lawrence.	102	57 06
" St. Bernard.	97	57 06
" " M. Aloysius.	97	60 00
" " Mary Asc.	102	59 41
" " Teresa Joseph.	101	59 41
Smith, Gertrude O.	101	52 94
Sutherland, Mary.	90	60 00
Thurber, Ronald E.	102	60 00
Titus, Lawrence L.	102	59 41
Wilton, Richard T.	101	57 06
Woodill, Arthur W.	97	41 01
Bruce, Alice A.	93	41 01
Buckles, Sara.	95	41 01
Burke, Helena B.	93	8 82
Cameron, Annie.	20	42 78
Cameron, Mary C.	97	45 00
Cann, Lillian.	102	44 56
Clarke, Elizabeth I.	101	45 00
Currie, Donald J.	102	45 66
Currie, Teresa.	99	8 82
Curry, Alice B.	20	19 40
Dennis, Agnes M.	44	45 00
Douglas, Fred A.	102	45 00
Douglas, Havelock G.	102	8 82
Downing, Florence C.	20	45 00
Doyle, Agnes C. M.	102	45 00
Fox, Edith I.	102	42 78
Fraser, Lulu F.	97	44 56
Fife, Magdalen M.	101	45 00
Gillis, Jennie M.	102	42 78
Gillis, Margaret.	97	44 56
Graham, Bessie F.	101	42 78
Grattan, A. Myrtle.	97	45 00
Greig, Ida H.	102	42 78
Hamilton, Agnes E.	97	42 78
Harris, Gladys E.	97	45 00
Hartigan, Katherine.	102	45 00
Johnston, Mary C.	102	38 36
Kelly, Amy R.	102	42 78
Knowlton, Edith.	87	44 11
McCabe, Georgie.	97	44 11
McCarthy, M. Ellen.	100	33 96
McCormack, Katherine.	77	45 00
McDonald, Annie C.	102	44 11
Macdonald, Daisy F.	100	42 78
Macdonald, Ethel M.	97	



MacDonald, Jean F.	97	42 78	Campbell, Florence M.	94	27 65
MacDonald, Lola.	102	45 00	Campbell, Maude L.	7	2 06
MacDonald, Nellie	97	42 78	Carlin, Mary M.	97	28 53
MacDonald, Sadie E.	102	45 00	Carmichael, Jessie	102	30 00
Macdonnell, Theresa.	101	44 56	Coady, Margaret A.	90	26 47
McInnis, Dorothea J.	102	45 00	Crewe, Myra A.	102	30 00
McIntosh, Margaret E.	99	43 66	Dillon, Agnes W.	102	30 00
McIntosh, Margaret S.	101	44 56	Downing, L. Minnie	82	24 12
McIntyre, Matilda.	97	42 78	Egan, Carlotta	99½	29 26
McIsaac, Margaret.	100	44 11	*Farrell, Hugh	102	40 00
McIsaac, Mary Jos.	97	42 78	Francis, Hildred O.	102	30 00
MacKenzie, Charlotte E.	102	45 00	Gannon, Mary	97	28 53
MacKinnon, Katie.	102	45 00	*Gillis, Rose A.	102	40 00
MacLean, Christine V.	101	44 56	Gouthro, Veronica	83	24 41
McLean, S. Agnes.	101	44 56	Granger, Catherine I.	5	1 47
McLeod, Cecilia I.	102	45 00	Horton, Annie	102	30 00
McLeod, Tena H.	100	44 11	Kerr, Annie	102	30 00
McNeil, Alexander.	94	41 45	Kerr, Annie F.	102	30 00
McNeil, Annie L.	97	42 78	Kerr, Flora	91	26 77
McPhee, Annie,	102	45 00	MacCormick, Mary	80	23 53
Merritt, Mary.	102	45 00	McDonald, Anna F.	76	22 35
Milburn, Verna.	102	45 00	Macdonald, Cassie	100	29 41
Moore, Elizabeth.	102	45 00	Macdonald, Elizabeth	102	30 00
Morrison, Margaret.	79	34 84	MacDonald, Mary C.	102	30 00
Mosher, Blanche.	102	45 00	McDonald, Mary J.	102	30 00
Muggah, Margaret.	97	42 78	McDonald, Minnie F.	85	25 00
Nicholson, M. Vance.	101	44 56	McDonald, Sarah	96½	28 38
Phillips, Katie E.	97	42 78	McDougall, Mabel	91	26 77
Phoran, Alice.	102	45 00	MacGillivray, Jessie	68	20 00
Fierce, Celeste.	102	45 00	*McGlashen, Nan	75	29 41
Reid, Mary H.	101	44 56	*McInnis, Maggie	20	7 84
Robinson, Hattie L.	102	45 00	*MacInnis, Margaret M.	93	36 47
Rose, Lenora.	102	45 00	McIntyre, Mary E.	91	26 77
Ross, E. May.	102	42 78	McIsaac, Margaret	97	28 53
Simpson, Margaret J.	97	45 00	McIver, Lizzie	102	30 00
Sister Agnes Maria.	102	44 56	McKenzie, John K.	13	3 82
" Francis Leon.	101	45 00	Mackenzie, Katherine	100	29 41
" M. Ambrose.	102	45 00	MacKenzie, Lottie	102	30 00
" " Angelorum.	101	44 56	Mackenzie, Margaret	102	30 00
" " Annina.	102	45 00	*McKenzie, Teresa	101	39 61
" " Camillus.	101	44 56	MacKinnon, Jessie M.	96	28 24
" " Eulalia.	101	44 56	*McKinnon, Martin W.	52	20 39
" " Gualbert.	100	44 11	MacKinnon, Sadie M.	97	28 53
" " Josephine.	48	21 16	MacLean, Myrtle L.	69	20 29
" " Leonard.	101	44 56	Maclean, Rachael	85	25 00
" " Louise.	102	45 00	McLellan, Mary	61	17 94
" " Lucina.	102	45 00	McLellan, Mary A.	102	30 00
" " Oswald.	102	45 00	McLeod, Margaret	100	29 41
" " Stephen.	101	44 56	McLeod, Sarah	102	30 00
" " Veronica.	100	44 11	McMaster, John	97	28 53
" " Wilfrid.	102	45 00	East Bay Consolidation		
" " St. Aldric.	97	42 78	3 D.	97	85 59
" " Alexander.	102	45 00	*MacMillan, Malcolm	76	29 80
" " Casilda.	93	41 01	MacMillan, Victoria K.	90	26 47
" " Henedine.	102	45 00	McNeil, Katie J.	98	28 83
" " John C.	102	45 00	MacVicar, Annie	88	25 89
" " Marcella.	97	42 78	Madower, Henrietta J.	84	24 71
Sister St. Reginald.	97	42 78	*Matheson, Flora C.	88	34 51
Stalker, Annie	12	5 29	Mattattal, Florence	87	25 59
Stevens, Maude A.	102	45 00	Morrison, Jessie A.	96	28 24
Bates, Margaret M.	43	18 96	Morrison, Lottie M.	79	23 23
Brennan, Maude E.	47	13 82	Morrison, Margaret M.	66	19 41
Broderick, Annie	74	21 76	Munn, Ella M.	100	29 41
Browner, Florence V.	91	26 77	Nickerson, Margaret J.	82	24 12
The Meadows Consolidation	86	25 30	Nicoll, Pearl W.	42	12 53
1 D.	129	37 94	O'Handley, Joanna	97	28 53
			Reid, Annie E.	88	25 89

Ross, Margaret M.	102	30 00
Sampson, Clara M.	102	30 00
Scott, Mary A.	102	30 00
Sister M. Thomas	101	29 71
"    St. Ann	97	28 53
"    Augustine	93	27 36
"    Frances	97	28 53
"    Gregory	97	28 53
"    Mary	97	28 53
Smith, Christena	100	29 41
Stuart, John M.	88	25 89
Sullivan, Marie	102	30 00
Sullivan, Martha	94	27 65
VanTassel, Bertha S.	102	30 00
*Walker, Sarah B.	67	26 27
Wallace, Jean	102	30 00
*Way, Henrietta F.	75½	29 61
*Wilnot, Mary	76	29 80

ANNUITANTS.

McDonald, Joseph		60 00
Garrett, Charles V.		45 00
McDougall, Philip		45 00
McMillan, Fanny		30 00

ASSISTANTS.

Macdonald, Joanna	97	19 02
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COLCHESTER.

SOUTH COLCHESTER.

Archibald, G. G.	97	85 59
Creelman, W. A.	102	90 00
England, Harry E.	97	85 59
Richardson, Lophemia	96	84 72
Mosher, Amy	102	60 00
Berteaux, J. E.	102	60 00
Beckwith, Florence	101	59 41
Colter, Christina S.	102	60 00
Dickson, Hattie D.	97	57 06
Edwards, Elizabeth	102	60 00
Fitzrandolph, Mary F.	101	59 41
Fulton, Lillian M.	102	60 00
Henry, Ella K.	14	8 23
Hill, Annie L.	101	59 41
Hunter, Jennie A.	102	60 00
Lavers, Josephine	102	60 00
Lindsay, Olla M.	101	59 41
Logan, Margaret	102	60 00
McCurdy, Ruth	48	28 23
McCleave, R. D.	102	60 00
McKenzie, Agnes	97	57 06
McKenzie, Georgie	102	60 00
McLenman, Jennie	102	60 00
McNutt, Bessie	102	60 00
McNeil, Bessie J.	102	60 00
McPherson, Margaret	98	57 65
Nelson, Eda	98	57 65
Nichols, Harriet	102	60 00
Parker, Helen G.	102	60 00
Purdy, Pearle	4	2 35

Smith, Margaret J.	102	60 00
Walker, Jean R.	102	60 00
Young, Nellie B.	102	45 00
Archibald, Janet	102	45 00
Archibald, Jessie D.	102	45 00
Archibald, Maynard B.	102	45 00
Brown, Bertha M.	102	45 00
Clarke, Janet G.	102	45 00
Cox, Janet R.	102	45 00
Crowe, Bella	102	45 00
Davis, D. G.	102	45 00
Dawson, Agnes E.	102	36 60
Dickie, David L.	83	45 00
Drysdale, Carrie M.	102	45 00
Fox, Bertha	102	41 90
Fulmore, Della M.	95	45 00
Gammell, Janet	102	43 22
Graham, Ida	98	41 01
Guild, Jean	93	45 00
Hutchinson, Grace	102	44 56
Logan, Jessie B.	101	44 56
Miller, Agnes	101	45 00
Meadows, Pearl	101	45 00
Mellish, Mary	102	36 16
McIntosh, Agnes	102	44 11
McKay, A. Olivia	82	44 84
McKay, Beatrice	100	34 22
O'Brien, Maggie	79	45 22
Pearson, Mary G.	98	23 81
Turner, Josephine	54	29 41
Archibald, Bertha J.	100	30 00
Brenton, Mabel	102	29 71
Bryson, Ethel	101	29 71
Chisholm, Agnes	68	20 11
*Davis, Mabel L.	87	17 05
Christie, Stella	58	30 00
Crowe, Tressie M.	102	24 31
*Fulton, Sarah M.	62	30 00
Gordon, Evelyn	102	29 00
Gourley, Mary Jane	102	20 71
Higgins, J. Etta	68	30 00
Higgins, Mabel J.	102	28 53
Johnson, Frank M.	102	30 00
Kavanah, Cecilia	97	34 11
*Leek, Nina H.	87	29 71
Lynds, Adelaide	101	29 71
Marsh, Isabel	101	39 61
*Mingo, Myrtle	101	27 45
*Moore, Bertha L.	70	29 71
Morgan, Lizzie	101	39 61
*Murray, Alexandra	101	30 00
McLeod, Susie	102	29 71
McLeod, Jennie	101	30 00
Parker, Laura D. B.	102	37 64
*Pratt, L. H.	96	28 53
Rutherford, Julia J.	97	38 04
*Sibley, Harriet M.	97	29 41
*Vance, Flora B.	75	25 89
White, J. Mabel	88	30 00
Whidden, Carlotta	102	30 00
Wright, Bertha A.	102	30 00

ANNUITANTS.

Calkin, J. B.

75 00

WEST COLCHESTER.

Cameron, Guy E.	102	60	00
Creelman, Amelia	102	60	00
Davidson, Lucretia	102	60	00
Fulton, Beatrice O.	102	60	00
Little, Flora	102	60	00
McLean, Pearl	102	60	00
O'Brien, Annie	102	60	00
Stevens, Georgie	102	60	00
Thompson, Alice L.	101	59	41
Tibert, W. K.	102	60	00
Wilson, Zella B.	102	60	00
Archibald, Ethel	102	45	00
Boomer, Grace	97	42	78
Cooke, Agnes B.	102	45	00
Cottle, Maude	102	45	00
Crowe, Martha D.	102	45	00
Fulton, Elsie L.	102	45	00
Johnson, Lizzie M.	102	45	00
Lighthody, Ina B.	102	45	00
Morash, Isabel L.	102	45	00
Morrison, Ida M.	102	45	00
McIntosh, Laura B.	102	45	00
O'Connell, E. Grace	101	44	56
Robbins, Violet	102	45	00
Treen, Lulu B.	102	45	00
Huntley, Ida M.	102	30	00
Johnson, Amy	102	30	00
Jones, Estella	102	30	00
Lantz, Mabel E.	102	30	00
Leck, D'Arcy	102	30	00
Lewis, Hattie B.	72	27	17
McLaughlin, Nellie	102	30	00
McLaughlin, Erma Ret.	102	30	00
O'Brien, Martha S.	33	36	47
Stevens, Jennie E.	102	30	00
Stevens, Minerva	102	30	00
Strople, Florence	102	30	00
*Vance, Ruby A.	93	36	47
Whyte, Earle	102	30	00
Great Village Consolidation	102	30	00

STERLING.

Faulkener, Nina Ethel	46	27	05
Reid, Alice Cairns	44	25	88
Byers, Maggie J.	94	41	45
Craig, Jean	102	45	00
Drysdale, Janet R.	102	45	00
Kennedy, Lizzie A.	82	36	16
Langille, Annie M.	102	45	00
Langille, Hilda B.	102	45	00
McLeod, Jessie A.	102	45	00
Nelson, Clara B.	102	45	00
Slade, Almira	92	40	57
Slade, Fannie	99	43	66
Barley, Maud	102	30	00
Brown, Ellen C.	102	30	00
*Currie, Marjorie	91	35	68
*Forbes, Olive T.	87	34	11
Langille, Jennie May	102	30	00
Matheson, Henry	90	26	47
*Mattatall, Laura May	90	26	47
*Miller, Lillian G.	73	28	63
Mingo, Edith	101	29	71

Murlock, Ethel	102	30	00
McEachern, Lydia	102	30	00
McEachern, Janie	98	28	83
McKay, Lena	87	25	59
McLeod, Janie	102	30	00
McLanders, Minnie	102	30	00
Sutherland, Christie	100	29	41
*Thompson, Libbie May	76	29	80
Waugh, Harry H. S.	98½	28	97
Weatherby, Stella	102	30	00

CUMBERLAND.

Lay, E. J.	102	105	00
Morehouse, F. G.	102	105	00
Smith, Elizabeth	102	90	00
Tanche, Jos. H.	102	90	00
Barnes, Blanche	102	60	00
Blanche, Julia	99	58	23
Chapman, Myra	102	60	00
Charman, Mary E.	101	59	41
Chesley, Carrie	102	60	00
Craig, Jean E.	99	58	23
Crawford, R. D.	102	60	00
Elliott, Minnie	102	60	00
Glennie, Emma	102	60	00
Hall, Georgie	102	60	00
Hill, Alice	102	60	00
Jenks, Winnifred	101	59	41
Lawrence, Jennie	98	57	65
Lent, Irene	97	57	06
Lockhart, Lillian	102	60	00
McKenzie, Annie J.	102	60	00
McPherson, Laura	102	60	00
McWilliams, Jessie	102	60	00
Mitchell, Jennie	102	60	00
Murray, Annie	102	60	00
O'Brien, Della	102	60	00
O'Brien, Bertha	102	60	00
Ogilvie, Estella M.	102	60	00
Roney, Effie	102	60	00
Russel, Jean	102	60	00
Shortliffe, D. L.	98	57	65
Smith, Mamie K.	99	58	23
Stewart, Martha	102	60	00
Swift, Alice	102	60	00
Watt, Beatrice	102	60	00
Baird, Jean F.	96½	42	56
Beaton, Mary	99	43	66
Bent, LeReta	102	45	00
Bigney, Bessie	102	45	00
Bird, Vera	102	45	00
Brundage, Kate	102	45	00
Butler, Mamie	101	44	56
Cameron, Blanche	101	44	56
Cameron, Donnie	102	45	00
Chandler, Isabella	102	45	00
Charman, Eliza G.	102	45	00
Clarke, Agnes	96	42	34
Craig, Muriel E.	102	45	00
Creelman, Jean	102	45	00
Currie, Helen S.	102	45	00
Dimock, Imogene	102	45	00
Elliott, Ida W.	88	38	80

Embree, Sara	102	45 00	Dobson, Blanche	97	28 53
Falconer, Jean	102	45 00	Dwyer, Ella	97	28 53
Frame, Annie	102	45 00	Edgett, Minnie	80	23 30
Fraser, Ella J.	67	29 54	Farrell, Annie	102	30 00
Fullerton, Eva L.	102	45 00	Fiske, Lalia E.	102	30 00
Fulton, S. J.	102	45 00	Grant, Sadie	102	30 53
Gallager, Adelaide	101	44 56	Harrison, Maude	80	30 00
Gates, Gertrude	92	40 57	Harrison, Evelyn R.	102	30 00
Gibson, Florence E.	100	44 11	Hawkins, Emma	102	29 71
Hanna, Mabel	102	45 00	Hayward, Inez	101	29 71
Harris, Mattie T.	102	45 00	Hennesey, Elva	101	20 88
Harrison, Ermina	102	45 00	Hickey, Lizzie E.	71	30 00
Healey, Teressa	102	45 00	Hunter, Minnie E.	102	30 00
Hall, Mabel	102	45 00	Jameson, Bertha	102	26 18
Hill, Ruby	102	45 00	Jeffers, Myrtle	89	30 00
Hunter, Augusta	78	34 40	Johnson, Susie W.	102	22 94
Hunter, Lillian	102	45 00	Johnson, Edna C.	78	20 00
Marchant, Abbie J.	95	41 90	Kleiber, Jessie	68	29 71
McCabe, V. Pearl	102	45 00	Kelley, Vera M.	101	30 00
McDonald, Grace Mc.	72	31 75	Lamb, Leah M.	102	30 00
McIntosh, Bella J.	102	45 00	Lindsay, Susie	102	25 59
Melvor, Ethel	102	45 00	Leonard, Eliza M.	87	29 71
McLeod, Georgiana	100	44 11	Locke, Gladys I.	101	30 00
McPhee, Teressa	102	45 00	Mattinson, Ivey	102	29 12
Moreash, Georgina	81	35 72	McCullum, Alberta M.	99	40 00
Morris, Edith L.	101½	44 78	*McCully, Florence	102	30 00
O'Brien, Fannie	102	45 00	McDonald, Eileen	102	40 00
O'Brien, Agnes	93	41 01	*McEachren, Margaret	102	29 71
Oxley, Annie	102	45 00	McKay, Ida	101	29 56
Patton, Mary E.	82	36 16	McKay, Margaret	101½	30 00
Prowse, Lillian	102	45 00	McKeil, Linda B.	102	18 53
Pugsley, Chester	102	45 00	McLaughlin, Verna	63	29 71
Ripley, Ethel	6	2 64	McLaughlin, Kathleen	101	30 00
Ripley, Daisy	102	45 00	McLean, Pamela	102	21 47
Roach, Bessie	100	44 11	Mitchell, Gertrude	73	27 50
Robertson, Annie	102	45 00	Morrison, Kathleen H.	93½	28 23
Shiple, Ethel M.	102	45 00	*O'Connell, Irene	72	30 00
Smith, Bella A.	102	45 00	Oulton, Christina	102	30 00
Spearing, Alice M.	102	45 00	Patton, Annie	102	28 53
Sproule, Essie	102	45 00	Porter, Mary	97	30 00
Sproule, Mabel	102	45 00	Purdy, Sara A.	102	27 06
Taylor, Arabella	100	44 11	Purdy, Agnes L.	102	27 35
Thompson, Fannie J.	97	42 78	Reid, Mae I.	92	22 23
Trerice, Ruth	102	45 00	Ripley, Russel E.	76	30 00
Baird, Alda C.	102	30 00	Ripley, Jennie	79	30 00
Baker, Sadie G.	102	30 00	Robinson, Margaret M.	102	30 00
Beattie, Jamie	88	25 89	Ross, Jennie	102	27 06
Betts, Mina R.	102	30 00	*Ross, Birdie	102	23 82
Bird, Elsie	53½	15 72	Ryan, Beulah M.	69	29 71
Bradshaw, Georgina	93	27 36	Salter, Josephine M.	81	18 53
Brown, Delia I.	102	30 00	Schurman, Nellie	101	25 59
*Brownell, Myrtle	59	23 13	Smith, Jennie J.	63	29 71
Cameron, Jennie B.	102	30 00	Somers, Lorelei D.	87	30 00
Campbell, Helen	93	27 36	Stewart, Lizzie F.	101	30 59
Campbell, Annie	102	30 00	*Stromberg, Annie	102	28 53
Carter, Olive	56	16 46	Sutherland, John D.	78	29 71
Chapman, Margaret J.	100	29 41	Sutherland, Katharine	98	18 23
Chapman, May E.	102	30 00	Taggart, Lily M.	101	30 00
*Coulter, Gladys	67	26 27	Taylor, Florence H.	62	17 94
Creelman, Dean	95	27 94	Thompson, Jennie	102	31 76
Crowe, Grace	102	30 00	*Thompson, Gladys A.	61	30 00
Davis, Sadie	102	30 00	VanBuskirk, Marjorie	81	30 00
Davison, Bertha	102	30 00	Willis, Jennie	102	21 56
Dench, Susie	97	28 53	*Wilson, Annie	98	32 15
Dickinson, Carrie E.	102	30 00	*Wood, Ruby T.	55	32 15
Dyas, Mary	38½	11 32	Woodland, Hattie E.	82	30 00
				102	

PARRSBORO.

McDonald, J. Crerar	102	105 00
Swanson, Peter I.	97	57 06
Atkinson, Blanche	102	60 00
Boss, Maud V.	102	60 00
Cameron, Wyman	98	57 65
Doyle, Mabel	102	60 00
Hiltz, Adelaide S.	102	60 00
Hemneon, Elizabeth	101	59 41
Leitch, Holly	102	60 00
O'Mullen, Mary F.	102	60 00
Smith, Ada H.	102	60 00
Sproule, Lottie L.	102	60 00
Watson, Lillian	102	60 00
Webb, Hattie	102	60 00
Atkinson, Jennie	88	38 80
Atkinson, Ruby	102	45 00
Brownell, Mayme	102	45 00
Callaghan, Lena	98	43 22
Challen, Minnie O.	102	45 00
Fullerton, Marion T.	102	45 00
Kerr, Minnie G.	102	45 00
Lockhart, Annie	101	44 56
Nuttal, Mamie	102	45 00
Pipes, Augusta	86½	38 14
Reid, Antoinette W.	102	45 00
Withrow, May L.	102	45 00
Canning, Helen B.	98	28 83
Canning, Minnie	97	38 04
Florence LeRoy	29	8 52
Fraser, Stanley	78	30 59
Fulton, Nellie P.	101	29 71
Gallagher, Violet L.	102	30 00
Gilbert, Perle E.	101	29 71
Layton, Wm.	28	8 23
Mott, Effie T.	102	30 00
Roberts, Janie M.	69	20 29
Roberts, Mamie E.	101	29 71
Shipley, Jessie H.	102	30 00
Spicer, Lydia	54	15 87
*Welsh, Royce A.	68	26 67

ANNUITANTS.

Sister Mary Ann	60 00
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CONSOLIDATED SCHOOLS.

Wentworth	101	29 71
Spencer's Island	101	29 71
Advocate	102	30 00

DIGBY.

Patterson, Mabel G.	102	90 00
Belliveau, Catherine	102	60 00
Belliveau, Willie J.	102	60 00
Berry, Ruperta L.	97	57 06
Churchill, A. W.	102	60 00
Fleet, Sarah J.	102	60 00
Gesmer, C. Leonard	102	60 00
Harris, Cora M.	102	60 00
Rayford, Albert C.	102	60 00

Hicks, Blanche G.	102	60 00
Hogg, Nathaniel W.	102	90 00
Longley, Annie M.	72	42 35
Longley, Reginald A.	30	17 64
Outhouse, Eva C.	102	60 00
Ritcey, Mae T.	102	60 00
Sister Baptista Maria	94	55 30
"    M. Madeline	102	60 00
Troop, Alice M.	49	28 82
Turnbull, Bessie B.	102	60 00
Whitman, Jean E.	102	60 00
Wilson, Flora E.	102	60 00
Wolfe, Hattie F.	102	60 00
Baker, Ermina M.	102	45 00
Baker, Kathleen A.	102	45 00
Belliveau, Antoinette	102	45 00
Belliveau, Marie A.	102	45 00
Comeau, Amy	102	45 00
Comeau, M. Eugenie	102	45 00
Crocker, Eva M.	95	41 90
Doucet, Adele	102	45 00
Doucet, Elizabeth	102	45 00
Doucet, Jos. P.	102	45 00
Dugus, Aggie	102	45 00
Gibbons, Grace L.	102	45 00
Harris, Nellie M.	39	17 19
Harrison, A. Frances	102	45 00
Hutchinson, Nina B.	102	45 00
LeBlanc, Daniel	101	44 56
Letteney, Edith P.	97	42 78
Melancon, Rose A.	102	45 00
Peters, E. Gertrude	102	45 00
Pothier, Adaline C.	53	23 37
Sanford, S. Beryl	102	45 00
Saulnier, Catherine	101	44 56
Shortliffe, Nina M.	102	45 00
Simpson, Florence E.	102	45 00
Simpson, Lulu A.	102	45 00
Sister M. Anthony	29	12 79
"    "    Norbert	102	45 00
"    "    Modesta	102	45 00
"    "    Virginia	97	42 78
Stevens, Eudora M.	56	24 69
Taylor, Addie D.	102	45 00
Thibault, M. Alma	102	45 00
Thibault, M. Monique	102	45 00
Thimot, M. Elina	102	45 00
Trevo, Archie H.	44	19 40
Walsh, Grace B.	102	45 00
Young, Agnes M.	102	30 00
Amirault, Edith S.	102	30 00
Blackford, Lillie D.	102	30 00
Brown, Vernon E.	102	30 00
*Calnek, Anna A.	101	29 85
Campbell, Lola B.	90	35 29
*Churchill, Allie M.	102	30 00
Comeau, Marie Ann	102	30 00
Comeau, Marie Rose	82	32 15
*Cook, Hattie A.	102	30 00
Crocker, Nina B.	102	30 00
Dakin, Guy A.	102	30 00
Denton, Helen A.	102	40 00
*Doty, Floris G.	102	30 00
Doty, Lytha M.	102	30 00
Dugas, Francoise	102	30 00
Franklyn, Alma M.		

Goreham, Nettie A.	102	30 00
Gower, Edna E.	102	30 00
*Grant, Estella V.	102	40 00
Hersey, Laura B.	102	30 00
Hiltz, Elizabeth B.	102	30 00
*Hutchinson, Mary J.	92	36 08
Hutchinson, Maud D.	102	30 00
*Jones, M. Eleanor	49	19 21
Lambertson, Myrtle F.	49	14 40
*Lambertson, Pearl E.	102	40 00
Lawrence, Charlotte P.	54	15 87
*LeBlanc, Sarah	102	40 00
LeBlanc, Symphorien	102	30 00
*Lewis, Jessie M.	98	38 43
Lombard, Marie A.	102	30 00
Mack, Annie L.	102	30 00
*Marshall, Annie M.	83	32 55
Melancon, Leonie A.	101	29 71
*Mullen, Annie L.	101½	39 81
Prime, Lenetta	102	30 00
Rice, Olive A.	73	21 47
Ring, Viva M.	102	30 00
Robichaud, Emily	102	30 00
Robichaud, Eveline	102	30 00
Robichaud, Marie M.	102	30 00
Sister M. Gonzaga	102	30 00
"    F. Paula	73	21 47
Snow, Lennie M.	102	30 00
*Surette, Mary M.	99½	39 02
Suthern, Lois B.	102	30 00
Taylor, Sophia M.	102	30 00
Theriault, Symphorien	102	30 00
*Trask, Lizzie B.	91	35 68
Thurber, Bessie G.	102	30 00
Wetmore, Flora E.	102	30 00
Young, Erinna V.	102	30 00

ANNUITANTS.

Goodwin, Emma M.	45 00
Sister M. Ursula	45 00
Smallie, Mary	30 00

GUYSBORO.

Beattie, Frank H.	100	102 93
Evans, Laura F.	102	75 00
Brown, Mabel	102	60 00
Carmichael, D. E.	102	60 00
Courteen, Violet	96	56 47
Cousins, Leah	102	60 00
Dillon, Eva	102	60 00
Dennison, Gertrude Alice	102	60 00
Hadley, Marion S.	102	60 00
Hurst, Blanche	102	60 00
Kavanagh, Florence E.	102	60 00
McGillivray, Amelia	101	59 41
McMillan, Janet C.	102	60 00
Ross, Katherine J.	102	60 00
Brown, Mary	102	45 00
Fraser, Ida J.	102	45 00
Hanifen, Margaret M.	94	41 45
Hadley, Agatha A.	102	45 00
Kennedy, Annie M.	69	30 42

Leydon, Katherine	102
Munro, Cleophas	97
McNaughton, D. P.	68
Nash, Gertrude M.	102
Shanahan, L. J.	102
Scott, Catherine L.	102
Taylor, Mabel C.	83
Walsh, Helen B.	101
Brown, Sadie M.	71
Boyd, Elfreda	73
Callahan, Maud H.	86
Forrestall, Mary	100
Fraser, William	32
Grant, Jenetta M.	102
Girrior, Beatrice E.	90
Goodwin, Leda M.	102
Gillis, Minnie	69
Howard, Ruth W.	19
*Howard, Mrs. Sadie	25 89
Hurst, Lila M.	30 00
Jones, Clara M.	102
Jameson, Bessie G.	32 55
*Johnson, Agatha	83
*Kelly, Mary	102
Kennedy, Lena C.	102
Kennedy, Mary T.	102
*Morgan, Kate L.	102
Morgan, Emma	101
Meagher, Stella M.	33 72
*Malloy, Orries B.	100
*Murphy, Annie	86
Mason, Emma	83
Macdonald, Angus B.	53
McGregor, Anna R.	93
O'Hara, Alice	102
*Purcell, Jennie A.	101
*Rogers, Mary Ellen	36 47
Strahan, Mary A.	93
Spanks, Elora J.	91
Worth, Marion S.	102
Worth, Josie Laura	102
*Worth, Anna Belle	90

ANNUITANTS.

Hanifen, Maggie	30 00
Taylor, Mrs. Anne	30 00

ST. MARY'S.

Aikens, Charles E.	102
Bent, Laura F.	102
Bent, Georgina F.	102
Balcombe, Florence C.	87
Corneally, Lottie G.	102
Hattie, John D.	102
Hewitt, Martha	97
Jenkins, Georgina C.	97
Nowlan, Bessie A.	68
Park, Marion	102
Stewart, Robert A.	53
Archibald, James G. S.	102
Ashton, Maud E.	77
*Balcombe, Lucy W.	50
Chamison, John A.	55
*Chisholm, Jessie M.	55

45 00  
42 75  
29 86  
45 00  
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45 00  
36 60  
44 30  
20 88  
21 45  
25 41  
29 91  
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26 77  
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38 36  
45 00  
45 00  
42 75  
42 75  
29 98  
45 00  
15 58  
30 19  
30 19  
14 56  
21 56

Fraser, Rosie E.	34	10 00
Gunn, John S. H.	62	18 23
Harling, James H.	102	30 00
McQuarrie, Sadie E.	102	30 00
McPhie, Mabel	97	28 53
*Smith, Eva Isabel	88	34 51
Sinclair, Nellie	102	30 00
*Wilson, Hannah F.	90	35 29

HALIFAX.

CITY.

McKay, A.	92	94 70
Morton, S. A.	97	85 59
Logan, J. W.	97	85 59
Mackintosh, S. K.	97	85 59
Trefry, J. H.	97	85 59
Bancroft, G. R.	97	57 06
Peters, F. A.	97	57 06
Bigney, E. M.	97	57 06
MacDonald, E. M.	39	22 93
Haley, G. B.	97	42 78
Blois, H. H.	58	
Butler, G. K.	102	90 00
Cummings, E.	102	90 00
Evaristus, Sr.	102	75 00
Huggins, G. M.	97	85 59
Marshall, G. R.	102	75 00
Murray, Mme.	102	90 00
O'Hearn, P.	102	75 00
Rosaria, Sr.	102	90 00
Rosaire, Sr.	97	85 59
Agnes, Sr.	102	60 00
Agnita, Sr.	102	60 00
Allen, M. E.	102	60 00
Annand, E.	102	60 00
Archibald, S. M.	102	60 00
Armitage, F. M.	102	60 00
Bayer, H. M.	102	60 00
Berchmans, Sr.	102	60 00
Bowden, I. M.	102	60 00
Bowden, L. J.	102	60 00
Brims, M. C.	102	60 00
Brunt, B. G.	102	60 00
Brunt, H. D.	102	60 00
Brodie, I.	102	60 00
Brown, E. R.	102	60 00
Brown, M. L.	102	60 00
Boutillier, M. L.	102	60 00
Cecilia, Sr.	102	60 00
Chapman, E. L.	102	60 00
Concepta, Sr.	102	60 00
Cunningham, A. M.	102	60 00
DeCharntal, Sr. M.	97	57 06
Delahanty, K.	102	60 00
Dempsey, I. B.	102	60 00
Dolorita, Sr.	102	60 00
Dolorosa, Sr.	102	60 00
Dwyer, M. E.	102	60 00
Ernestine, Sr.	102	60 00
Fitzgerald, Mme.	102	60 00
Florence, Sr.	75	44 11
Flowers, E. M.	102	60 00

Flowers, H. L.	102	60 00
Frances, Sr.	102	60 00
Frye, B. E.	102	60 00
Gaul, R. E.	102	60 00
Gervase, Sr.	102	60 00
Grant, M. L.	102	60 00
Greig, G. S.	102	60 00
Harlow, A. C.	102	60 00
Harlow, A. O.	20	11 76
Hazle, E. M.	102	60 00
Kelly, J. M.	102	60 00
Kelly, Mme.	102	60 00
Laracy, A. X.	102	60 00
Leontine, Sr.	102	60 00
Maria, Sr.	102	60 00
Marshall, L. E.	102	60 00
Mason, B. E.	102	60 00
Mortimer, J. W.	102	60 00
O'Brien, M. A.	102	60 00
Phelan, M. F.	102	60 00
Pius, Sr.	102	60 00
Publicover, L. D.	102	60 00
Rankine, A. B.	102	60 00
Richardson, R.	102	60 00
Ross, E. D.	82	48 23
Ross, E. J.	102	60 00
Sanders, A. K.	78	45 88
Sanders, K. O.	102	60 00
Saunders, A. C.	102	60 00
Shields, E. G.	102	60 00
Shields, S. W.	102	60 00
Sims, S. A.	102	60 00
Spencer, A.	102	60 00
Spencer, E. M.	102	60 00
Sullivan, Mme.	102	60 00
Theakston, H. S. F.	102	60 00
Tullock, M. E.	102	60 00
Thompson, F.	102	60 00
Tynan, J. C.	102	60 00
Wakely, A. C.	102	60 00
Whalen, A. T.	102	60 00
Wiswell, I. M.	102	60 00
Woolrich, M. E.	102	60 00
Xavier, Sr.	102	60 00
Ackhurst, M. L.	102	45 00
Ancient, F. S.	102	45 00
Baker, G. H.	102	45 00
Bayer, A. L.	102	45 00
Blois, E. H.	102	45 00
Broadhurst, M. E.	102	45 00
Catherine, Sr.	102	45 00
Christina, Sr.	102	45 00
Clark, E. M.	102	45 00
Clement, Sr.	102	45 00
Conrad, E. M.	102	45 00
Cunningham, E. S.	102	45 00
Curren, E. M.	102	45 00
Dechantal, Sr. F.	102	45 00
DePazzi, Sr.	102	45 00
Delphine, Sr.	102	45 00
Devine, M. E.	102	45 00
Ead, M. J.	102	45 00
Ethelbert, Sr.	102	45 00
Evangelista, Sr.	102	45 00
Felix, Sr.	102	45 00
Finn, Mme.	102	45 00

Greig, L. C.	88	38 80
Grierson, F.	102	45 00
Grierson, M. H.	102	45 00
Hamilton, H. H.	102	45 00
Hartigan, Sr.	102	45 00
Healy, K. E.	102	45 00
Henrion, C. E.	102	45 00
James, C. A.	102	45 00
Jamieson, H. J.	82	36 16
J. Baptist, Sr.	102	45 00
Johns, M. A.	102	45 00
Johnson, I. J.	102	45 00
Joseph, Sr.	102	45 00
Kennedy, M. C.	102	45 00
Leo, Sr.	102	45 00
Leocadia, Sr.	102	45 00
Logan, A.	102	45 00
Longueil, E.	79	34 84
Lyall, B. H.	102	45 00
Lyons, M.	102	45 00
McArthur, J. R.	102	45 00
McDonell, Mme.	102	45 00
McGregor, A.	102	45 00
McLean, A.	102	45 00
Maria, Sr.	102	45 00
Martin, M. J.	102	45 00
Mary, Sr.	102	45 00
Mitchell, L. E. J.	102	45 00
Mooney, E. M.	102	45 00
O'Donoghue, M. T. T.	102	45 00
Perpetua, Sr.	102	45 00
Phalen, F. J.	102	45 00
Phinney, E. C.	102	45 00
Putnam, A. F.	102	45 00
Remigus, Bro.	102	45 00
Rita, Sr.	102	45 00
Rockett, M. M.	102	45 00
Ross, Carrie E.	102	45 00
Strattan, E.	102	45 00
Sullivan, M.	102	45 00
Sullivan, M. I.	102	45 00
Sullivan, M. T. R.	102	45 00
Theakston, S. E.	102	45 00
Travis, A. A.	102	45 00
Trivett, M. E.	102	45 00
Vaughan, K. A.	49	21 60
Vincent, Sr. M.	102	45 00
Vincent, Sr. F.	102	45 00
Walsh, A. M.	102	45 00
Warner, M. F.	102	45 00
Wells, C.	102	45 00
Wells, M. H.	102	45 00
Willis, E. J.	102	45 00
Jemmott, M. F.	102	30 00
Patrick, Bro.	102	30 00

EVENING SCHOOLS

Huggins, G. M.	21	12 35
Mackasey, W. P.	37	16 31
Titus, R. L.	33	19 40

ANNUITANTS.

Hall, H. McG.	60 00
Torrey, E. C.	45 00

Gossip, C. M.  
Creighton, I. M.

COUNTY.

Stapleton, W. C.	97	99 95
Stapleton, W. C. evening school)	12	7 06
Allen, Christina	97	57 06
Bell, Mary F.	102	60 00
Corkum, Clara	100	58 52
Corkum, Ethel	97	57 06
Creighton, Frances G.	97	57 06
Grant, Ethel M.	102	60 00
Hamilton, Mary A.	97	57 06
Hiltz, Ethel M.	97	57 06
Miller, Florence	97	60 00
Moore, Jamesina	102	60 00
Moseley, Mabel C.	102	60 00
Munro, Mary E.	102	60 00
McDonald, Victoria	102	57 06
McLeod, Beatrice	97	57 06
Prescott, Alice	97	60 00
Pye, Eva C.	102	59 41
Shaw, Fenwick L.	101	60 00
Settle, Gertrude	102	59 41
Tupper, Inez	101	45 00
Archibald, Irene	102	45 00
Archibald, Gertrude J.	102	44 56
Auld, Margaret E.	101	3 97
Balcombe, Florence	102	45 00
Brown, Grace A.	102	45 00
Cameron, Sadie E.	99	43 66
Coleman, Hannah E.	102	45 00
Cooke, Mary L.	92	40 57
DeVau, Nana	102	45 00
DeVau, Eileen	102	45 00
Dickie, Gertrude H.	97	42 78
Ellis, Nina M.	33½	14 77
Erskine, Jennie B.	97	42 78
Fahie, Annie M.	102	45 00
Findlay, Sadie	12	5 29
Findlay, Sadie	102	45 00
Foley, Ethel	101	44 56
Freeman, Nellie B.	102	45 00
Gallagher, Mildred	102	45 00
Graham, Myrtle E.	100	44 11
Gourley, Catherine I.	102	45 00
Hanna, Grace	100	44 11
Hartling, Nettie J.	101	44 56
Harvey, Jessie	84	37 04
Heisler, Arthur J.	102	45 00
Higgins, Emma A.	102	45 00
Hiltz, Lizzy B.	102	45 00
Hume, Bessie W.	102	42 94
Hume, Mary E.	96	45 00
Jackson, Henrietta	102	45 00
Jewers, Beatrice	102	45 00
Laidlaw, Elizabeth	102	42 94
Langille, Jessie E.	96	45 00
Lawrance, Gladys	102	45 00
MacGillivray, Flora	102	42 78
MacKay, Isabel	97	45 00
MacKenzie, Margaret A.	102	45 00
Marryatt, Ida	102	45 00
Myers, Jeanetta A.	102	45 00

30 00  
60 00



Myers, Tillie A.	101	44	56
Nicholson, Malcolm	102	45	00
Parke, Nellie L.	102	45	00
Publicover, Jennie E.	102	45	00
Roche, Mary	102	45	00
Shute, Jessie T.	97	42	78
Smith, Anna M. E.	102	45	00
Smith, Isabella	75	33	08
Smith, Maie Addie	77	33	96
Smith, Pearl M.	102	45	00
Strachan, Katherine	96	42	34
Tays, Gertrude H.	101½	44	78
Tays, Hattie S.	78	34	40
Thomas, Bessie	102	45	00
Thompson, Ray M.	102	45	00
Vance, Suther C.	101½	44	78
Vaughan, Ethel	102	45	00
Walker, Bertie E.	102	45	00
Robson, Gladys E.	48	21	16
*Anderson, Arthur J.	78	30	59
*Andrews, Maggie E.	59	23	13
Archibald, Edward	59	17	35
Baker, Winnifred	19	5	59
Beaver, Florence E.	64	18	82
Boyle, Katie A.	15	4	41
Brokenshire, Amelia	102	30	00
Clark, Adelle	102	30	00
Collins, Bernice	102	30	00
Collins, Pearl	102	30	00
Comeau, Emma	91½	26	91
Cornier, Anna R.	101½	29	85
Dauphinee, Essie M.	73	21	47
Dechman, Elizabeth J.	102	30	00
*Dickie, Mabel B.	102	30	00
Drysdale, Annie J.	77	30	19
*Eastham, Gertrude	102	25	89
Elliott, Vera Elizabeth	102	40	00
Erskine, Alexandra	101	29	71
Fahie, Margaret	83	24	41
Feindell, Addie L.	96½	28	38
Foley, Irene	102	30	00
Forbes, Marie G.	102	30	00
Fox, Alice O.	93	27	36
*Gaetz, Mina A.	102	30	00
*Glawson, Anna E.	102	18	82
*Glawson, Ethel May	48	43	52
Gould, Ethel V.	111	22	94
*Grant, Elizabeth B.	78	31	76
*Guild, Effie Jane	81	30	98
Guild, Ethel G.	79	30	00
Hall, Harry	102	30	00
Hanna, William Fielding	20	5	88
*Harpell, Amanda	102	30	00
Harrison, Margaret H.	101	39	61
*Hartling, Eva Catherine	87	25	59
Hartling, Minnie F.	91	35	68
Heisler, Nellie M.	102	30	00
Henry, Ethel M.	84	24	71
Henry, Leah M.	102	30	00
Higgins, Lida M.	101	29	71
*Hilchie, Lillie M.	74½	21	91
Hilchie, Stella B.	60	23	53
Hopkins, Mary E.	102	30	00
Hutchinson, Angus	102	30	00
Jacour, Cora B.	38	11	17
Jewers, M. Annie	76	22	35
	91	26	77

Josey, Izetta	102	30	00
Julien, Emma B.	102	30	00
Kennedy, Winifred M.	102	30	00
Landry, Evelyn M.	93	27	36
LaPierre, Matilda	102	30	00
*Leslie, Robert	30	11	76
Marryat, Ethel L.	102	30	00
*Morrow, Stella A.	70	27	45
Mosher, Ellen S.	102	30	00
Murray, Mary I.	73	21	47
McKay, Violet K.	101	29	71
MacKenzie, Elsie C.	102	30	00
Naylor, Kate	102	30	00
Nieforth, Mabel J.	102	30	00
Parlee, Alvida M.	43	12	64
Perry, Eva M.	102	30	00
Prest, Mary M.	68	20	00
Richardson, Edith M.	102	30	00
*Richardson, Mildred	101½	39	80
Ritcy, Augusta O.	102	30	00
Sedgewick, Jessie M.	84	24	71
Shaw, Selena E.	91	26	77
*Skerry, Emma	87	34	11
Smith, Alice M.	97	28	53
Smith, Edna R.	77½	22	80
Spanks, Margaret E.	101	29	71
Stoddard, Lena S.	102	30	00
Stoddard, Robert H.	102	30	00
Stoddard, Sabina B.	102	30	00
Sullivan, Rose M.	102	30	00
*Upshaw, Ethel I.	100	39	21
Urquhart, Nellie	102	30	00
Warner, Mary B.	102	30	00
Watt, Bridget G.	102	30	00
Yeadon, Ida M.	82	24	12
McPhail, Annie L.	102	30	00
Bates, Edwina M.	101	29	71

ANNUITANTS.

Gibbons, John		30	00
Bacon, Amelia A.		30	00

HANTS.

WEST.

Dill, George W.	97	99	85
Kaulbach, Lenore	97	85	59
Smith, J. A.	100	102	93
Coldwell, Lewis H.	102	60	00
English, Mabel I.	99	58	23
Foote, Rea K.	102	60	00
Fulmore, A. Maude	93	54	71
Lavers, Winnifred M. G.	102	60	00
Lewis, Lena L.	102	60	00
Lockhart, Bessie B.	102	60	00
Lockhart, Lena L.	102	60	00
McLellan, Mary	102	60	00
Pentz, Bertha E.	95	55	88
Scott, Agnes B.	102	60	00
Webster, Elsie E.	4	2	35
White, Jennie M.	102	60	00
*Adams, Floretta M.	102	45	00

Bennett, Hannah	102	45 00
Bissett, Amy R.	102	45 00
Boyle, Harriet M.	102	45 00
Brison, Maud L.	93	41 01
Burgoyne, N. A.	102	45 00
Caldwell, Winnie B.	102	45 00
Davies, Kathleen	102	45 00
Dimock, Annie	102	45 00
Dimock, Jessie	102	45 00
Fraser, Daisy R.	102	45 00
Goudy, Emily F.	102	45 00
Harvey, Alice A.	102	45 00
Harvey, Arabella	101	44 56
Kelley, Minnie A.	102	45 00
King, Mildred E.	97	42 78
Lawrence, Harriet E.	102	45 00
Lawrence, Lily M.	97	42 78
Lockhart, E. Bessie	102	45 00
Lynch, Jessie A.	102	45 00
McCurdy, Helen	102	45 00
McLearn, Gertrude E.	102	45 00
Moore, Jennie	102	45 00
Mosher, Idella P.	101	44 56
North, Marjorie D.	99	43 66
Palmer, Gladys L.	97	42 78
Palmeter, Nora A.	102	45 00
Parker, Prudence E.	102	45 00
*Parsons, Hattie A.	99	43 66
Roach, Lena L.	75	33 08
Rogers, Sadie	101½	44 78
Sanford, Alida R.	102	45 00
Sexton, Vera	86	37 92
Shaw, Mildred L.	102	45 00
Spencer, Fred L.	102	45 00
Tuttle, Florence L.	9	3 97
*Archibald, Mary McKay	96	37 64
*Barnaby, Elsie M.	98	38 43
Carter, Medora	100	29 41
*Chase, Gertrude M.	93	36 47
Cochrane, Madge I.	95	27 94
Davidson, Rebecca	102	30 00
Laws, Lillian	102	30 00
*McClair, Leslie R.	73	28 63
Quinn, Dora M.	102	30 00
*Rose, Anna M.	20	7 84
Simm, Jennie P.	102	30 00
*Smith, Nellie A.	67	26 27
Underwood, Janie	100	29 41
Vaughan, Bertha L.	72	21 17
*Vaughan, Alice G.	102	40 00
Withrow, Blanche H.	102	30 00

EAST.

Baltzer, Ivy M.	102	60 00
Crossley, Nellie B.	102	60 00
Holesworth, Mabel C.	101	59 41
Macdonald, Ruby	102	60 00
McKenzie, Florence H.	102	60 00
Ogilvie, Estey M.	101	59 41
Oxley, Gertrude O.	102	60 00
Ritcey, Adelaide M.	102	60 00
Scothorn, Priscilla	102	60 00
Strong, May S.	102	60 00
Blois, Josephine C.	101	44 56
Burgess, Bertha L.	102	45 00

Campbell, Lena B.	85
Campbell, Margaret B.	101
Densmore, Agnes McH.	102
Dowell, Helen G.	101
Ferguson, Janie A.	102
Fraser, Ella J.	10
Graham, Addie R.	102
Graham, Alice E.	102
Graham, Julia M.	102
Hamilton, Mildred	102
Hartling, Mabel E.	74
Homans, Estella M.	102
Kent, M. Lillian	102
Lewis, Sadie R.	100
MacLeod, Margaret	102
*McGill, Frances	101
Mariette, Emma M.	102
Moreash, Sara M.	102
Salter, Hattie M.	102
Simm, Ada A.	102
*Brown, Helen F.	53
*Coldwell, Alice B.	97
Cole, Lydia	102
*Coudrane, Ethel B.	93
Dowell, Vera	33
*Etter, A. Gorden	57
Faulkner, C. Benjamin	101½
*Goff, Flora M.	93
Hale, Sadie E.	102
*Hamilton, Olivia A.	102
*Harvey, Florence	102
Horne, May E.	97
Isenor, Lena M.	81
Logan, John S.	99
Logan, Katie L.	102
MacDougall, Merle R.	88
MacPhee, Rose	67
MacLean, Katherine	101
McLellan, Annie	102
McLeod, Elsie	100
McLeod, Laura G.	102
*Mason, Sarah J.	102
O'Brien, Janie L.	88
O'Brien, Miles A.	101
Parker, Alice B.	78
Parker, Winifred E.	102
Stillman, Flora B.	102
Sutherland, Jessie C.	101
Wickwire, Margaret A.	102
Williams, Reta H.	

ANNUITANTS.

Scott, Lily A.	
Smith, Letson M.	

INVERNESS.

SOUTH.	
Tompkins, Ida	101
Chisholm, Jennie,	98
Gillis, James D.	40
Johnson, Harriet	102

37 48  
44 56  
45 00  
44 56  
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32 63  
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60 00

103 98  
57 65  
23 52  
60 00

McDougall, Jessie A	102	60 00
McInnis, Duncan	44	25 88
MacMaster, Annie J.	102	60 00
McNeily, Wm. H.	102	60 00
Sister St. Mary of C.	102	60 00
" " Marie Dolores	102	60 00
Woodbury, Harold C.	98	57 65
Beaton, Margaret	102	45 00
Dickson, Margaret	102	45 00
Henderson, Mamie B.	102	45 00
Hume, Florence	102	45 00
McDonald, Mary B.	102	45 00
MacDonald, James R.	102	45 00
McDonnell, Christina E.	102	45 00
MacIsaac, Mary Agnes	59	26 01
MacKay, David	102	45 00
For Evening School	8	3 52
McLean, Edgar H.	102	45 00
McLellan, Florence C.	102	45 00
McLeod, Mary M.	102	45 00
McMaster, D. B.	102	45 00
MacQueen, Katherine	102	45 00
Murray, Winnifred	94	41 45
O'Brien, Rufus B.	97	42 78
Sister St. Olga	102	45 00
" " Philip of J.	102	45 00
Smyth, Beatrice	102	30 00
Beaton, Catharine F.	102	30 00
Beaton, Mary Agnes	102	30 00
Beaton, Mary B.	84	24 71
Beaton, Sarah Ann	102	30 00
Cameron, Janet Frances	88	25 89
Campbell, Margaret M.	87	25 59
Chisholm, Cassie	93	27 36
Gurie, Mamie	90	26 47
Forbes, Jessie A.	102	30 00
Grant, Cassie J.	86	25 30
Grant, Edith E.	102	30 00
Grant, Bertha Alice	102	30 00
Jameson, Ona M.	102	30 00
Leonard, Dollie	83	24 41
McDonald, Mary B.	102	30 00
McDonald, Mary Jane	97	28 53
McDonald, Mary Jane	102	30 00
MacFadyen, Flora Bell	90	26 47
MacFadyen, Barbara R.	91	26 77
MacIntyre, Sarah M.	82	24 12
McKeigan, Catharine I.	100	29 41
MacKichan, Margaret	129	37 94
MacKichan, Annie I.	83	24 41
McLeod, Catharine	78	22 94
MacMillan, Katie	102	30 00
MacNeill, Mary A.	102	30 00
MacNeill, Mary Ella	58	17 05
MacQueen, Alice	88	25 89
MacQueen, Christina	81	23 82
Ross, John A.	27	7 94
Skinner, Daniel J.	102	30 00
Smith, Lillian	102	30 00
Smith, Harvey Richard	76	22 35
Urquhart, Muriel H.	76	22 35
Watts, Harold	78	22 94
Watts, Ada Myrtle	101	29 71
*Beaver, Lena May	87	34 11
*Davis, Mrs. Mary	122	47 84
For 1907		17 09

*Gibson, Emmett E.	82	32 15
*McDonald, Mary A.	20	7 84
*MacLachlan, Minnie G.	78	30 59
*McLellan, M. Catharine	74	29 02
*McMaster, Mamie	102	40 00
*McPhail, Ellen Sophia	86	33 72
*Matheson, Katie Sophia	93	36 47
Graham, Katie M.	49	14 40

ANNUITANTS.

McQuarrie, Angus	30 00
Chisholm, Duncan	60 00

NORTH.

Boudreau, Anselm C.	102	60 00
Chisholm, Janie A.	102	60 00
Collins, Daniel	78	45 88
Cornier, Wm. E.	102	60 00
Gillis, Malcolm H.	95	55 88
Kennedy, Christie B.	102	60 00
McDermid, Donald	9	5 29
MacInnis, Charles J.	29	17 05
MacRae, Agnes	34	19 99
MacRae, Agnes	20	11 76
Tompkins, Matthew	98	57 65
Sister Mary St. Stephen	102	60 00
Arseneault, Mary B.	102	45 00
Austen, Kenneth J.	102	45 00
Boudreau, Placide C.	92	40 57
Chiasson, Ephraim	101	44 56
Chisholm, Arch. A.	59	26 01
Coady, Sarah J.	102	45 00
Daigle, Annie M.	102	45 00
Dimock, Clarence	26	11 47
Finn, Violet	62	27 34
Gray, Jennie Vivien	102	45 00
LeBlanc, John P.	102	45 00
McDaniel, Annie E.	97	42 78
McKinnon, Mary C.	102	45 00
McLean, L. E.	102	45 00
McLellan, A. N.	102	45 00
McLellan, Mary C.	102	30 00
MacMillan, Duncan A.	41	18 08
Sister St. Andrew	102	45 00
" " Genevieve	35	15 43
" " Zephyrin	5	2 20
Arceneau, Florence	84	24 71
*Cameron, Christina	76	29 80
*Coady, Rebecca E.	91	35 68
Coady, Francis P.	91	26 77
*Delaney, Matilda	82	32 15
DesVaux, Adele D.	102	30 00
Doucet, Adele Sophia	100	29 41
Gillis, John	23	6 76
Hawley, Maude	20	5 88
*Kennedy, Murdoch D.	10	3 92
LeBlanc, Judith	102	30 00
MacDaniel, Sadie B.	102	30 00
McDonald, Annie M.	102	30 00
Macdonald, Mary S.	83	24 41
*MacDonald, Angus A.	101	39 61
MacDonell, Katie J.	87	25 59
McDougall, Maggie	102	30 00
McDougall, Katherine	102	30 00

McDougall, Agnes	73	21 47	Dow, Jessie M.	102	60 00
McGregor, Dan E.	78	22 94	Durling, Ina	102	60 00
MacIntosh, Sophie	102	30 00	Elliott, S. E. Primrose	101	59 41
*McKay, Dan P.	102	40 00	Gilliatt, Ruth E.	102	60 00
MacKinnon, Annie	88	25 89	Graves, Laura H.	102	60 00
MacKinnon, Christina	67	19 70	Hamilton, Helena H.	102	51 17
MacKinnon, Eva	15	4 41	Landels, Ermina G.	87	60 00
*McLean, Geo. M. G.	42	16 47	Lee, Minnie M.	102	60 00
*McLean, Libby D.	49	19 21	Loomer, Estella J.	102	60 00
*MacLellan, Annie M.	41	16 08	Margeson, Susie M.	102	60 00
McLellan, J. Ronald	102	30 00	Marshall, Gertrude L.	102	2 94
McLennan, Katie B.	102	30 00	McDonell, Margaret	5	60 00
McLennan, Charles R. F.	88	25 89	Miner, Bertha	102	60 00
McLennan, Mary A.	72	21 17	Morse, Elizabeth G.	102	60 00
MacLeod, Norman	58	17 05	Morse, Florence B.	102	59 70
MacLeod, Francis P.	102	30 00	Moses, Etta F.	101 <sup>+</sup>	60 00
MacLeod, Maggie C.	102	30 00	Munro, Lizzie B.	102	59 41
MacLeod, Norman	73	21 47	O'Brien, Greta F.	101	60 00
MacMillan, Daniel	102	30 00	Parker, Lucia M.	102	60 00
*MacMillan, Louis A.	83	32 55	Rines, Maggie L.	102	60 00
MacQuarrie, Annie	88	25 89	Sexton, Thelma	102	60 00
Martin, Mabel B.	102	30 00	Smith, Verna M.	102	60 00
Matheson, John D.	102	30 00	Starratt, Hattie B.	102	60 00
Morrison, James H.	68	20 00	Trenholm, Olga F.	102	57 65
Murphy, Mary R.	102	30 00	Welton, Jennie	98	60 00
Rose, John L.	91	26 77	Wood, Apha M.	102	60 00
Sister St. John	102	30 00	Woodward, Grace L.	102	60 00
" " Margaret Mary	102	30 00	Woodworth, Catherine	102	34 40
"Aberdeen" Consolidation, No. 60, "D".	100	29 41	Wylde, Sara P. W.	78	45 00
			Anis, Vivian A.	102	45 00
			*Best, Bessie M.	102	45 00
			Brown, Laura A.	102	45 00
			Cahill, Cassie L.	102	45 00
			Challen, Bessie	102	44 11
			Corkham, David A.	100	45 00
			Cox, Miriam J.	102	45 00
			Daniels, Mildred	102	45 00
			Eaton, Bertha M. L.	102	36 60
			Fairweather, Winnie L.	83	45 00
			Finley, Eva L.	102	38 80
			Foote, Edith M.	88	45 00
			Foster, Laurie E.	102	45 00
			Franey, Bertha M.	102	45 00
			Gibson, Ethel W.	102	6 61
			Grafton, Louise	15	45 00
			Guild, Libbie	102	21 60
			Higgins, Margaret	49	25 57
			Hockin, Hilda	58	45 00
			Jenkins, Giralda H.	102	45 00
			Kent, Bessie W.	102	45 00
			Lamont, M. Gertrude	102	45 00
			Lamont, Nancy C.	102	4 41
			Lochart, Harry P.	10	45 00
			Longueil, Edna E.	102	44 11
			Macdonald, Laura	100	45 00
			Mahan, Effie E.	102	45 00
			Manthorne, Jennie M.	102	45 00
			Margeson, Hanna L.	102	45 00
			McFadden, Kathleen	102	43 66
			Morse, Kate O.	99	45 00
			Mosher, Margaret E.	102	45 00
			Nichols, Lola M.	102	44 56
			Patterson, Florence S.	101	32 63
			Parker, V. Essie	74	45 00
			Quigley, Mary E.	102	
			Rines, Rossie A.		
ANNUITANTS.					
McLean, Donald E.		60 00			
McDougall, Arch. S.		45 00			
MacKinnon, Malcolm		45 00			
Gillis, John A.		45 00			
Nicholson, Arch. G.		45 00			
MacMillan, Peter		30 00			
McDonald, Teresa		45 00			
ASSISTANTS.					
Coady, Daniel	91	17 85			
LeBlanc, Margaret E.	91	17 85			
KINGS.					
Campbell, Jessie B.	102	105 00			
Fairweather, Ernest E.	102	105 00			
Farrell, Mary A.	102	75 00			
Ford, Robie W.	102	105 00			
Foster, Mayhew C.	102	105 00			
Oxner, Bertha G.	102	90 00			
Webster, Winifred M.	102	90 00			
Armstrong, Flora B.	102	60 00			
Baltzer, Nettie L.	102	60 00			
Best, Flora A.	102	60 00			
Boyle, Annie B. T.	28	16 47			
Brinton, Effie S.	102	60 00			
Cassidy, Bertha M.	101	59 41			
Chute, Hettie M.	97	57 06			
Cochrane, S. Ethel	102	60 00			

Robinson, Clara A.	102	45 00
Sanford, Celia A.	102	45 00
Sanford, Sadie W.	50	22 05
ShIPLEY, Mary H.	102	45 00
*Swindell, Charlotte E.	62	27 34
Taylor, Sadie E.	93	41 01
Tobin, Gertrude	102	45 00
*Wagner, Zilpha A.	102	45 00
Wallace, Ellen	20	8 82
Weaver, Beatrice M.	102	45 00
Wilkins, Hattie E.	102	45 00
Woodworth, Cora E.	102	45 00
*Baltzer, Lilla B.	63	23 71
*Bishop, Minnie P.	102	38 38
*Bowls, Jessie I.	82	30 86
*Bowls, Hilda P.	87	25 59
*Calder, Maria E.	81	30 48
*Carver, Ida N.	81	30 48
Chute, Zephina B.	32	9 41
*Coffin, Eunice M.	102	38 38
*Cox, Mary B.	68	25 59
Dorey, Hattie B.	39	11 47
Easson, Mabel B.	101	29 71
*Fox, Marritta	20	7 52
*Gates, Lilla L.	39	14 67
Gibson, Hazel I.	102	30 00
Graves, Eva M.	102	30 00
*Hazel, Eliza J.	102	38 38
Hennigar, Grace D.	102	29 71
Hlaley, Julia M.	102	30 00
Hlaley, Lucy A.	102	30 00
*Jenkins, Nina M.	77½	29 16
Jones, Bessie M.	99	29 12
*Kaulbach, James O.	102	38 38
Knowlton, Cassie O.	102	30 00
*Levy, Evelyn M.	83	31 24
Manzar, Gladys R.	102	30 00
*Marshall, Nina	68	25 59
McMahon, Gertrude	102	30 00
Munro, Iola J.	102	30 00
Neary, Stella B.	102	30 00
Nowlin, Elsie M.	71	26 71
Ogilvie, Charlotte M.	102	30 00
Farrish, Cora B.	102	30 00
Patterson, Mary E.	93	27 36
*Powell, Ernest E.	41	15 42
Rand, Harriett Z.	102	30 00
*Sawler, Edith G.	83	31 24
*Sawler, Merinda R.	91	34 25
Strtridge, Erica L.	98	28 83
*Smith, Eva M.	102	38 38
*Smith, Ida L.	102	38 38
*Vaughan, Mary P.	20	7 52
*Weaver, Annie L.	68	25 59
*Weaver, Mabel A.	75	28 23
*Withrow, Ethel	101½	38 20

ANNUITANTS.

Godfrey, John A.	75 00
Andrews, Henry W.	60 00
Banks, J. Alonzo	60 00
Craig, James	45 00

ASSISTANTS.

Hill, Nathalie	88	17 26
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LUNENBURG AND NEW DUBLIN.

Harding, M. K.	102	105 00
McKittrick, B.	97	99 85
Hewitt, M. C.	102	90 00
Rudolf, Mary	102	75 00
Martin, Oscar	102	60 00
Bruhm, Muriel	102	60 00
Crowell, Brunhilda	101	59 41
Davis, May T.	102	60 00
Freeman, Nettie	101	59 41
Hebb, Bessie C.	97	57 06
Hennigar, Mabel	48	28 23
Herman, Bertha	97	57 06
Holder, Harriet	98	57 05
Joudrey, Edith	102	60 00
Knickle, Kathleen	102	60 00
Leary, Mary E.	102	60 00
Maxner, Morris	102	60 00
Mullock, Florence	102	60 00
McInnis, A. D.	102	60 00
McMillan, Margaret	102	60 00
Pearl, Etta M.	99	58 23
Prince, Ina B.	72	42 35
Rafuse, Eva	97	57 06
Ritcey, Winnie	102	60 00
Silver, Lottie M.	98	57 65
Strumm, Gladys	102	60 00
Veinot, Alice	102	60 00
Wentzell, Minnie	102	60 00
Wynacht, Maggie	97	57 06
Young, Helen R.	97	57 06
Young, Mary E.	102	60 00
Bailly, Leta M.	87	38 36
Bolivar, Alma M.	97	42 78
Bowers, Mary	102	45 00
Brooks, Blanche	101	44 56
Christie, Katherine	101	44 56
Crawford, Florence	102	45 00
Corkum, Cassie	102	45 00
Crouse, Cynthia	101	44 56
Dauphinee, Tessie	101	44 56
Ernst, Jessie M.	101	44 56
Ernst, Phebe	102	45 00
Fralig, Elsie	102	45 00
Hawksworth, Eva	101	44 56
Hebb, Jennie L.	102	45 00
Hirtle, Bertha	102	45 00
Hirtle, Ethel	102	45 00
Hirtle, Mary E.	102	45 00
Hirtle, Olive	102	45 00
Hirtle, Roy	102	45 00
Keddy, Bessie	101	44 56
Langille, Edith	102	45 00
Lohnes, Minnie O.	102	45 00
Mader, Bessie	102	45 00
Manning, Myra	102	45 00
Mason, Jessie	102	45 00
Millett, Sadie	102	45 00
Manzar, Laliah	102	45 00
McLachlan, Lelia	49	21 60
Parker, Carrie E.	102	45 00
Remby, Lottie R.	89	39 24
Richard, Edith	102	45 00
Rodenhiser, Lettie	102	45 00
Romkey, Mary C.	102	45 00

Silver, Florence	102	45 00
Silver, Susie B.	102	45 00
Smeltzer, Lillie	96	42 34
Smith, Eva M.	82	36 16
Smith, Lola L.	102	45 00
Smith, Minnie B.	102	45 00
Tobin, Ellen M.	102	45 00
Tobin, Mary E.	102	45 00
Thompson, Mary E.	102	45 00
Warner, Emma L.	102	45 00
West, Ella L.	102	45 00
Wolfe, Jennie E.	54	23 81
Young, Edith M.	43	18 96
Wambach, Vera	102	45 00
Baker, May E.	63	18 53
Bell, Gertrude	102	30 00
Bell, Minnie	102	30 00
Berringer, Ross	14	4 12
*Bolivar, Bernice	78	30 59
Brooks, Jessie	102	30 00
Brooks, Lena	102	30 00
Burns, Elsie	102	30 00
Chesley, Isabel	102	30 00
Corkum, Grace	102	30 00
Corkum, Gladys	98	28 83
Creaser, Florence	78	22 94
Crouse, Georgina	97	28 53
*Dauphinee, Lee	102	40 00
Deal, Bernice L.	102	30 00
Dolliver, Lydia	102	30 00
Durland, Nina	102	30 00
Eisnor, Idella	102	30 00
Ernest, Gladys	54	15 87
Fancy, Elizabeth	101	29 71
*Fralic, Enid	100	39 21
Haines, Hildred	90	26 47
Hall, Bessie L.	102	30 00
Hebb, Beatrice	100	29 41
Hebb, Lavinia	102	30 00
Hebb, Leda M.	92	27 06
Himmelman, S.	90	26 47
Hirtle, Gladys	102	30 00
Hirtle, Jessen	102	30 00
Hirtle, Kate	81	23 82
Hirtle, Pearl	36	10 59
Hyson, Grace	94	27 65
Inglis, Mary L.	91	26 77
*Jefferson, Minnie	102	40 00
*Joudrey, Lida	102	40 00
Kaulback, Birdie	44	12 93
Kaulback, Laura	97	28 53
Keddy, Elva M.	59	17 35
Kennedy, Lois	102	30 00
Lacy, Hattie	102	30 00
Langille, Aileene	102	30 00
Langille, Emery	102	30 00
Langille, Myrtle	100	29 41
Lohnes, Flossie	102	30 00
Lohnes, Stella	101	29 71
Mack, Theresa	102	30 00
Meisner, Arnold	88	25 89
*Mossman, Cora	102	40 00
Naugler, Emma	102	30 00
Newcombe, Florence	102	30 00
*Oickle, Sadie	101	39 61
Rafuse, Maggie	102	30 00

Reinhardt, Ethel	102
Saltman, Ernest	101
Silver, Jemima	102
Simpson, Esther	102
*Slauenwhite, Florence	102
Smith, Ada A.	102
*Sperry, Rhoda	82
Strumm, Emma	101
Thompson, Ella	86
Veinot, C. W.	24
Veinot, Lillian	102
*Veinot, Minnie	88
Vogler, Ethel B.	101
Wagner, Ella A.	102
Wagner, Sadie	91
Wentzell, Edith	102
Wessell, Laura	102
Westhaver, Jennie	88
Wile, Dora A.	102
Wolfe, Blanche	102
Zwicker, Bessie	102
Zwicker, Flora	102
Zwicker, Rhoda	102

## ANNUITANTS.

Rieser, Daniel	45 00
Faulkner, James	45 00
Stoddart, Marie	30 00
Heckman, Albert D.	

## CHESTER.

Kennedy, Mary B.	102
Weldon, Alice G.	102
Zinck, Austin A.	102
Zinck, Minnie	93
Bent, Evelyn	102
Bruhn, Flora	101
Croft, Margaret	102
Countway, Blanche	102
Hatt, Laura M.	102
Hiltz, Josie A.	102
Hirtle, Seward	72
Matthews, Margaret	102
Nicol, Minnie J.	97
Spidell, Jennie M.	102
Webber, Olie B.	3
Webber, Evangeline	88
Whitford, Albert	102
Zinck, Florence	102
Acker, Hattie	102
*Backman, Ollo M.	20
*Baker, Cora A.	102
Corkum, Annie B.	100
Corkum, Minnie	97
Eldridge, Jennie	102
Hawboldt, Gertrude	88
*Hirtle, Nora	19
Hennigar, Jessie W.	80
Huble, E. M.	93
*Joudrey, Hazel	102
Keddy, Sadie	39
*Langille, Ella A.	

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23 53  
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McQuarrie, Gladys	102	30 00
Skerry, Jessie B.	93	27 36
Strumm, Annie	102	30 00

PICTOU.

NORTH.

Fraser, Wm. P.	96	84 72
Macellan, Robert	96	98 84
MacLeod, R. H.	96	84 72
Munro, H. F.	96	84 72
Fraser, Annie D.	97	57 06
Maxwell, Janie	11	6 47
MacKay, Luella B.	102	60 00
MacRae, Alice	102	60 00
McArthur, Muriel	97	57 06
McArthur, Olive	97	57 06
Rutherford, Margaret	102	60 00
Boutillier, May	101	44 56
Brown, Isabelle J.	101	44 56
Cameron, Bessie N.	102	45 00
Campbell, Margaret	101	44 56
Collie, Annie M.	102	45 00
Gunn, Mamie A.	102	45 00
Haley, Mary	102	45 00
MacDonald, Mabel	97	42 78
McGirr, Gertrude	101	44 56
MacIntosh, Jennie	80	35 28
MacKay, Christina	97	42 78
MacKay, Marion A.	101	44 56
MacKenzie, Barbara	102	45 00
MacKenzie, Marjorie	102	45 00
MacKay, Janie	72	31 75
Maclean, Adelaide	102	45 00
MacVicar, J. E.	54	23 81
McCara, Katherine	97	42 78
McCunn, Isabel M.	102	45 00
Munsie, Jessie M.	97	42 78
Munro, Margaret	102	45 00
Payne, Sadie M.	102	45 00
Reid, Edna E.	102	45 00
Reid, Marion J.	102	42 78
Rogers, Marion	97	42 78
Rose, Jessie	97	42 78
Sutherland, Mina	102	45 00
Sutherland, Janie	93	41 01
Sutherland, Jennie W.	102	45 00
Sylvester, Mary	102	42 78
Tully, Ethel	97	42 78
Adamson, Mary E.	102	45 00
*Baillie, Jennie B.	98	28 83
Creighton, Agnes R.	86	33 72
Campbell, Christena	91	26 77
Elliot, Annie L.	102	30 00
*Fraser, Elsie C.	88	25 89
Graham, Lloyd M.	102	40 00
Harris, Annie E.	39	11 47
Heughen, Eleanor	92	27 06
Hamblen, Mary M.	97	28 53
Johnson, Lillian	91	26 77
MacCully, F. Pearle	71	20 88
MacKenzie, Jessie M.	36	10 59
MacKenzie, D. A.	78	22 94
	99	29 12

Maclean, Grace	96	28 24
MacLean, J. Grant	97	28 53
*MacTavish, Elizabeth	81	31 76
Mason, Elizabeth C.	90	26 47
Melvyn, Wilhelmina	102	30 00
McInnes, Anna	102	30 00
Mitchell, Annie G.	88	25 89
Mitchell, Jennie	100	29 41
*Matheson, Maud	33	12 94
Murray, Grace A.	102	30 00
Rae, Janie L.	96	28 24
*Robinson, Sadie	90	35 29
Stramberg, Johnina	101	29 71
*Sutherland, Mrs. Jas. W.	101	39 61
Sutherland, Sara G.	22	6 47
Wright, Nellie C.	68	20 00

ANNUITANTS.

Fraser, William	60 00
Gollan, John	60 00
MacKay, John	60 00
McArthur, Alex.	60 00
McDonald, D. W.	60 00

SOUTH.

Ellis, Russell	102	90 00
MacLeod, Jeanette	102	90 00
McLeod, John T.	102	105 00
Osborne, N. A.	102	105 00
Baillie, A. G.	102	60 00
Bannerman, Margaret	102	60 00
Clarke, Adelia	102	60 00
Coulter, Wm. B.	97	57 06
Demmons, Mona B.	102	60 00
Fraser, Attie	102	60 00
Fraser, Emily M.	102	60 00
Fraser, Winnifred	102	60 00
Gunn, Jessie A.	102	60 00
Gould, Lulu J.	102	60 00
Grant, Katherine	101	59 41
MacKay, Roberta	102	60 00
MacLean, Cassie	102	60 00
MacLean, Eva S.	99	58 23
MacLeod, F. T.	102	60 00
MacLeod, Gretha	102	60 00
MacPherson, Eliza	102	60 00
MacBean, Jennie	102	60 00
MacLean, William	102	60 00
Marshall, Margaret	102	60 00
Miller, Lola D.	102	60 00
Munn, Nina	102	60 00
Murray, Sadie A.	102	60 00
Munro, Ethel	100	58 82
Ogilvie, A. Marie	102	60 00
Maud, Philip	102	60 00
Robertson, Edith	102	60 00
Robson, Norman	102	60 00
Reeves, Annie W.	101	59 41
Savage, Martha	102	60 00
Thompson, Elizabeth	102	60 00
Archibald, Blanche	101	44 56
Archibald, A. D.	98	43 22
Bryden, Myra	102	45 00
Ballantyne, Jean	102	45 00

Boutillier, Eunice	90	39	69	Murray, Agnes E.	39	11	47
Cameron, Mary M.	97	42	78	*Munro, Nettie C.	49	19	21
Condon, Josephine	102	45	00	*Parlee, Marion	61	23	92
Crocket, Annie C.	102	45	00	Reid, Jeannette M.	88	25	89
Chisholm, Mary M.	102	45	00	Ross, Minnie	102	30	00
Cunningham, Leah	102	45	00	Ross, Isabella C.	102	30	00
Flynn, Sadie	101	44	56	Sutherland, Mary M.	102	30	00
Fraser, Gertrude C.	102	45	00	Stewart, Mary L.	33	9	70
Grant, Maria	102	45	00	Thompson, W. Percy	102	30	00
Grant, Etta W.	102	45	00				
Jordain, Catherine	101	44	56				
Keith, Sylvia	102	45	00	ANNUITANTS.			
Kelly, Marion E.	98	43	22	Jessie Cameron		45	00
MacArthur, Annie M.	102	45	00	McKenzie, A. S.		60	00
MacKenzie, Emma	97	42	78	Cruikshank, Jessie		45	00
MacKenzie, Christina	97	42	78				
MacKnight, Jessie	102	45	00	QUEENS.			
Macgillivray, Jane R.	102	45	00				
McIsaac, Minnie	101	44	56	SOUTH.			
MacIntosh, Miranda	102	45	00	Morton, R. F.	102	105	00
MacMillan, Anabelle	102	45	00	Mullins, Jennie	102	90	00
MacGillivray, A. J.	34	14	99	Baltzer, Mary H.	102	60	00
McDonald, Margaret D.	68	29	98	Harrington, E. B.	102	60	00
Maxwell, Bessie B.	97	42	78	Harrington, Georgie	102	60	00
Macdonald, Agnes	100	44	11	Letson, Marguerite	102	60	00
MacEwen, Mary C.	67	29	54	Mader, Annie A.	102	60	00
Patterson, Margaret	102	45	00	Patterson, Cordelia	102	60	00
Robertson, Susie M.	102	45	00	Richardson, K. F.	102	60	00
Ross, Bessie B.	102	45	00	Richardson, K. F.	102	60	00
Schultz, Sadie J.	102	45	00	Smith, Sophia	102	60	00
Smith, Isabell C.	101	44	56	Thompson, Lillian	102	36	16
Sutherland, Lexie	102	45	00	Allen, Mary E.	82	45	00
Turner, Christena	102	45	00	Ernst, Florence C.	102	45	00
Wagner, Georgina	81	35	72	Freeman, Allene	102	43	86
Walker, Jennie	102	45	00	Greenlaw, Marion	99	45	00
Ballantyne, Agnes W.	99	29	12	Hanley, Ruth	102	45	00
Cameron, Hannah	102	30	00	Hartlen, Ida	102	45	00
*Cameron, Rose Anna	91	35	68	Huskins, Pearl	102	45	00
Cameron, Ethel	81	23	82	McGinty, Katherine	102	27	34
Crooks, Helena	96	28	24	McLeod, Ethel	62	45	00
Dunlavy, Jennie	85	25	00	Osborne, Melissa	102	45	00
Fraser, Laura S.	102	30	00	Palmer, Queenie	102	45	00
Fraser, Margaret C.	102	30	00	Pentz, Harriet	102	45	00
*Fraser, Elizabeth E.	53	20	78	Rafuse, Gertrude	102	45	00
Fraser, William T.	39	11	47	Ramey, Jessie M.	102	45	00
*Fullerton, Irene	67	26	27	Wylde, Mary A.	102	30	00
Graham, Janella	101	29	71	Dolliver, Belle	102	30	00
*Green, Elizabeth	68	26	67	Freeman, Verta	84	32	94
*Gunn, Martin W.	68	26	67	*Frazel, Letitia	102	30	00
Jackson, Annie F.	92	27	06	Hagan, Matilda	102	28	23
*Johnson, Ethel G.	101	39	61	Hawboldt, Ida	72	30	00
Macdonald, Marcella	92	27	06	*Manthorne, Mildred	102	40	00
MacKenzie, Ethel A.	98	28	83	Meisner, Hilda	102	30	00
MacKay, Ellen	89	26	18	*Munroe, Effie	102	29	71
Macleod, Isabel E.	93	27	36	McLeod, Annie W.	101	30	00
MacQuarrie, Mabel	101	29	71	Nickerson, Matilda	102	30	00
MacQueen, Marjorie	60	17	64	Rhynard, Gertrude	102	29	71
McDonald, Katherine	102	30	00	Swimm, Maud	101	24	31
McDonald, Margaret K.	90	26	47	Taylor, Lillian	62		
*McDonald, Allister	55	21	56	*Walker, Margaret			
McGregor, Minnie C.	101	29	71				
McInnis, Cassie M.	102	30	00				
McLean, C. Myrtle	102	30	00				
*Miller, Bertha M.	54	21	17				
Mills, Martha	102	30	00				
Murray, Bessie M.	90	26	47				
				Cushing, Alice	102	60	00
				Fancy, Lydia	101	59	41



Freeman, Winnie	96	56	47
Colp, Beatrice	91	40	13
Freeman, Blanche	101	44	56
Freeman, Hilda	91	40	13
Johnson, Anne	101	44	56
Patterson, Lulu	102	45	00
Smith, Harrie	101	44	56
Doane, Ada G.	101	29	71
Doane, Estella	73	21	47
*Eanis, Hilda	91	35	68
*Frank, Merna	58	22	74
*Freeman, Gertrude	96	37	64
Froude, Gertrude	101	29	71
*Hartlen, Verta	81	31	76
Hunt, Beulah	102	30	00
*Hunt, Gladys	88	34	51
*Kempston, Abbie	80	31	37
McGuire, Mary	102	30	00
*Rhynard, Alma	88	34	51
Smith, Henrietta	102	30	00

RICHMOND.

MacKay, Katherine E.	102	105	00
MacGillivray, Teresa	101	59	41
Barret, Teresa F.	102	60	00
Bourgeois, Henry	102	60	00
Boyd, Christina	102	60	00
Madden, Annie E.	102	60	00
Boyd, Laura E.	102	45	00
Burke, Eva May	102	45	00
Burke, Mabel H.	102	45	00
Cote, Alice Patricia	102	45	00
Devereaux, Charlotte M.	102	45	00
Foret, Charles J.	102	45	00
Gagnon, Alfred G.	102	45	00
Grady, Alice Maud	102	45	00
Kavanagh, Eva C.	102	45	00
Kyle, Angela E.	102	45	00
LeBlanc, S. Rose	102	45	00
McGillivray, M. Rose	102	45	00
McKillop, Ewen D.	102	45	00
McKinanon, John J.	102	17	64
McLeod, Peter A.	40	45	00
McLeod, John R.	50	22	05
Macneil, Minnie A.	102	45	00
Macneil, Florence	102	45	00
Macneil, Minnie V.	102	45	00
Montbourquette, May	102	45	00
Morrison, Annie	102	45	00
Murphy, Margaret A.	102	45	00
Nelson, J. Scott	102	45	00
Paterson, George J.	48	21	16
Additional for last term		4	25
Power, Mary Gertrude	102	45	00
Reid, Marie Olive	102	45	00
Samson, Mary E.	102	45	00
Samson, Annie E.	102	45	00
White, Minnie M.	102	45	00
Beranger, Abraham	98	28	83
Boyd, Hervey M.	101	29	71
Cameron, Ida W.	24	7	06
Cameron, Henrietta J.	73	21	47
Cameron, Katie A.	102	30	00

Cameron, Marion	102	30	00
Campbell, Katie	102	30	00
Coffey, Julia B.	100	29	41
Daigle, Joseph	99	29	12
Etienne, George W.	91	26	77
Etienne, Mary Louise	90	26	47
Ferguson, Ken. R. J	91	26	77
Finlayson, Tena J.	102	30	00
Gagnon, Evangeline	102	30	00
Jackson, Annie J.	102	30	00
Jameson, Roberta	102	30	00
Johnstone, Catherine	86	25	30
Kemp, Annie	76	22	35
Langley, Gertrude	80	23	53
LeBlanc, Harriet Anna	102	30	00
McGrath, James J.	97	28	53
McKillop, Kenneth A.	96	28	24
McLean, Rebecca B.	89	26	18
Macleod, Marie S.	102	30	00
McRae, Jessie A.	73	21	47
Morrison, Ella H.	102	30	00
Murphy, Minnie E.	102	30	00
Samson, Florence A.	102	30	00
Samson, Mary Louise	102	30	00
Samson, G. Fred.	99	29	12
*Bissett, Clara P.	102	40	00
*Burke, Sarah S.	102	40	00
*Coffey, Mary B.	83	32	55
*Holmes, Jessie K.	102	40	00
*Macaulay, Ada	102	40	00
*McLean, Mabel	88	34	51
*McPherson, Barbara	83	32	55
*Morrison, Michael E.	71	27	84
*Sutherland, Donald A.	102	40	00

ANNUITANTS.

McDougall, Peter		45	00
McKay, John		45	00
Boyle, D. R.		60	00

SHELBURNE.

McLeod, A. N.	102	105	00
Allen, Jane R.	102	60	00
Capstick, Grace	102	60	00
Hirtle, A. G.	101½	59	70
Hogg, Augusta A.	102	60	00
Smith, Annie S.	46	27	05
Atwood, Maude L.	54	23	81
Barclay, Josie P.	102	45	00
Bent, Roland L.	92	40	57
Bruce, Arthur C.	101	44	56
Etherington, Lillian	102	45	00
Lyle, Emily R.	102	45	00
McKay, Maude A.	102	45	00
McKay, Max B.	102	45	00
Rawlings, Adina	102	45	00
Sutherland, Bessie	102	45	00
Turner, Flora	102	45	00
Walls, Gertrude	102	45	00
Barkhouse, M. J.	102	30	00
Bethune, Annie B.	54	15	87
Bower, Edna G.	102	30	00

Bruce, J. Wilfred	81	23 82
Bruce, Mary M.	18	5 29
Coumans, Emily R.	88	25 89
Craig, Gertrude M.	13	3 82
Davis, Hattie H.	102	30 00
Decker, Bertha C.	102	30 00
Downie, Eula M.	97	28 53
Firth, E. Louise	102	30 00
*Firth, Alice W.	92	36 08
Freeman, Louise	100	29 41
Goodwin, Effie V.	101	29 71
Harding, Laura M.	102	30 00
*Harding, Wilhelmina	102	40 00
Holden, Mary E.	35	10 29
Houghton, Jean	102	30 00
Kavanagh, Elinor A.	101	29 71
Kempton, Bessie H.	81	23 82
Locke, Alice	94	27 65
McGuire, Maggie I.	102	30 00
McKay, Gertrude A.	100	29 41
*McKay, Elizabeth B.	75	29 41
McKenne, Lulu	102	30 00
*Purney, Helen J.	102	40 00
Shupe, Ianthe	102	30 00
Thomas, Genevieve	102	30 00
Thorburn, Marion R.	102	30 00

ANNUITANTS.

Goodick, J. D.	45 00
McMillan, Elizabeth	45 00

BARRINGTON.

Black, Pearle M.	102	60 00
Fox, A. D.	101	59 41
Frost, Georgia B.	102	60 00
Oulton, Millage	102	60 00
Bacon, Agnes S.	102	45 00
Black, Rose C.	102	45 00
Brannen, Lennie M.	101	44 56
Doleman, T. W.	101	44 56
Giffin, Grace M.	102	45 00
Goodwin, Genesta E.	102	45 00
Hogg, Garnet W.	102	45 00
Hopkins, Bella L.	102	45 00
Jacques, Giles V.	102	45 00
Nickerson, L. Isora	102	45 00
Nickerson, Sadie B.	102	45 00
Nickerson, C. Netta	102	45 00
Nickerson, Nettie M.	102	45 00
Nickerson, Bessie Swim	66	29 10
Ross, Beulah B.	102	45 00
Thomas, Elvah B.	102	45 00
Brannen, Ruby V.	101	29 71
Brannan, Pearle V.	102	30 00
Golden, Lola D.	90	26 47
Goodwin, Berenice A.	99	29 12
*Harding, Muriel A.	90½	35 49
Hopkins, Eva B.	102	30 00
Hopkins, Anita W.	102	30 00
*Kenney, Mary O.	91	35 68
Knowles, Meda L.	102	30 00
Locke, Louise, M.	102	30 00
McGinnis, Annie H.	102	30 00
McGinnis, Gladys R.	102	30 00

*Miller, Lois M.	62
Nickerson, Goldie G.	100½
Nickerson, Clara G.	93
Spanks, Carrie	101
Spinney, Amy L.	102
Thomas, Helen L.	102
Thorburn, Kathryn	102

ANNUITANTS.

Matheson, W. H.

VICTORIA.

MacLean, Christina O.	97
Fraser, Margaret	102
McDonald, M. B.	102
MacLeod, Bessie M.	89
Hennessey, Martha J.	102
Huntley, Edna	98
MacAskill, Flora B.	98
MacAulay, Jessie	100
Macdonald, Louise	97
McDonald, Katherine A.	102
McInnis, Dan F.	102
McInnis, Wm. C.	101
MacIntosh, Jessie	101
MacIntosh, Annie I.	102
MacKenzie, Margaret M.	95
McKenzie, Agnes J.	31
MacKenzie, Annie S.	101
MacKenzie, Emeline L.	102
McLeod, John D.	29
Mattatall, Daisy	102
Montgomery, Sadie	48
Nicholson, D. J.	102
Ross, May Lily	75
Ross, Maggie	102
Watson, Ella May	46
*Bethune, Roderick O.	91
Bethune, Gordon	102
Boyle, Cecilia M.	39
*Campbell, Alex. R.	102
Campbell, Jean E.	19
Gillis, Margaret	68
*Hutchison, Margaret	102
*McCaskill, Jessie H.	101
*MacAulay, Katherine	80
MacAulay, Annie F.	102
McCharles, Malcolm	68
Macdonald, Malcolm	96
Macdonald, Mary Letitia	97
Macdonald, Stanley	102
McDonald, Florence	70
MacGillivray, Bessie A.	102
*MacGregor, Mary A.	91
*MacGregor, Willena R.	101
McIvor, Louise C.	102
*MacIver, Mary Anne	44
MacKay, Wm. Kemp	92
*McLeod, Dan A.	34
McLeod, Catherine Abbie	34
McLeod, George	87
MacLeod, Katherine	

24 31  
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29 71  
10 00  
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MacLeod, Belle C.	102	30 00
McLennan, Margaret R.	102	30 00
McLennan, Hannah	102	30 00
*McLennan, Dolena S.	91	35 68
*McRitchie, Dan J.	97	38 04
Matheson, Murdoch A.	81	31 76
*Miller, Christina J.	102	40 00
Morrison, Joanna B.	18	5 29
*Morrison, Annie M.	102	30 00
Morrison, Johnina	91	35 68
Montgomery, Christine	82	24 12
*Nelson, Gustave Adolph	102	40 00
*Nicholson, C. Margaret	78	22 94
*Wath, Edgar B.	25	9 80
*Watson, Annie	87	34 11
"Kempt Head" Consolidation, "D"	96	28 24

YARMOUTH.

Allen, Letha S.	102	60 00
Allen, E. C.	102	75 00
Blackadar, Norna B.	83	61 02
Blackadar, G. D.	99	87 36
Hall, Florence B.	96	70 60
Horne, A. W.	102	75 00
Kempton, W. F.	95	97 79
McGray, M. W.	102	75 00
Spinney, Mary E.	102	75 00
Tooker, Beatrice	3	2 20
Wyman, H. J.	98	86 49
Allen, Georgie W.	102	60 00
Allen, S. B.	102	60 00
Blackadar, K. K.	102	60 00
Churchill, Vera L.	102	60 00
Churchill, Nelson	44	25 88
Cositt, O. Von B.	102	60 00
Crimp, Laura	102	60 00
D'Eon, J. Octave	102	60 00
Doane, Lora	102	60 00
Ellenwood, M. H.	102	60 00
Goodwin, Effie B.	102	59 41
Goudey, Alice A.	101	60 00
Grierson, Jean E.	102	60 00
Hopkins, M. J.	102	60 00
Huestis, Hannah	98	57 65
Inglis, Robt. E.	25	14 70
Jenkins, E. J.	101	59 41
Kinney, Laura	102	60 00
McGray, Jean	102	60 00
McLeod, A. J.	102	60 00
Platt, Bessie H.	102	60 00
Raymond, Luella	102	60 00
Reynolds, Avis E.	102	60 00
Robinson, Winifred	102	60 00
Smith, Charlotte G.	101	59 41
Allan, Frances L.	102	60 00
Brown, Maude S.	102	45 00
Bryant, Arletta	73	32 19
Chapman, A. J.	102	45 00
Croby, Jessie H.	102	45 00
Croby, Mildred	78	34 40
Delamere, S. P.	102	45 00
	102	45 00

Dorrie, Gladys A.	102	45 00
Goudey, L. Ada	81	35 72
Hardy, Ruby A.	102	45 00
Kean, Evelyn S.	102	45 00
MacKay, Janet McP.	93	41 01
Mills, Mary E.	102	45 00
Moses, Agnes	102	45 00
Mussells, Dora R.	102	45 00
Platt, Ada M.	102	45 00
Roach, Flo. L.	102	45 00
Rogers, Nellie S.	9	3 97
Scott, Martha	100½	44 34
Smith, Elsie B.	19½	8 59
Swaine, Mysie M.	102	45 00
Wyman, C. Winnifred	102	45 00
*Baker, Genie A.	73	28 63
Cameron, Margaret	102	30 00
Churchill, Addie M.	93	27 36
Crosby, Marion	101	29 71
*Deveau, Louise	63	24 70
Doane, Lavina P.	88	25 89
Ewan, Hedley J.	102	30 00
Hamilton, J. E.	68	20 00
Hatfield, Lizzie V.	97	28 53
Hurlbert, Bessie R.	87	25 59
*Hyson, A. E.	19	7 44
McGray, A. Edna	102	30 00
*McGray, Fannie E.	102	40 00
Porter, Herman L.	59	17 35
Purney, Maria I.	102	30 00
Smith, Marjorie C.	102	30 00
*Turner, Johanna B.	91	35 68
Wetmore, Ralph H.	102	30 00
Winter, Maude E.	102	30 00

ANNUITANTS.

Hilton, Mary M.	45 00
Munro, J. H.	75 00

ARGYLE.

D'Entremont, Rhoda M.	102	60 00
D'Eon, Stillman L.	11	6 47
Doane, Jennie A.	102	60 00
Frost, Isabel F.	102	60 00
Morse, E. P.	88	51 76
Ricker, Charlotte E.	101½	59 70
Scott, Anna	101	59 41
Sister Victoire	102	60 00
Amirault, Simon A.	86	37 92
Amirault, Eva A.	102	45 00
Babin, Eugenie L.	102	45 00
Bourque, Elizabeth	102	45 00
Bourque, Mary A.	102	45 00
D'Entremont, Edna C.	100	44 11
D'Entremont, Mary A.	102	45 00
D'Eon, Laura F.	102	45 00
Floyd, A. Pearle	102	45 00
Frost, Charlotte W.	102	45 00
MacKay, Nettie M.	101	44 56
Melanson, Bertha E.	102	45 00
Mius, Mary N.	102	45 00
Nickerson, Charlotte	102	45 00

Nickerson, Nellie G.	99	43 66	Babin, Mary T.	102	30 00
Pennington, J. G.	72	31 75	Belliveau, Genevieve	102	30 00
Pothier, Therese E.	102	45 00	Belliveau, Mary	102	21 17
Purdy, Lennie S.	77	33 69	*Blanchard, Sophie	54	40 00
Scott, Margaret	101	44 56	*Bourque, Rosie	102	8 23
Sister M. Elise	102	45 00	*Brannen, Ruby V.	21	30 00
"    " Eugenie	102	45 00	D'Entremont, C. M.	102	26 77
"    " Seraphia	102	45 00	D'Entremont, Hattie L.	91	19 60
Surette, Rose D.	102	45 00	*Duncanson, L. L.	50	30 00
Thibodeau, Beatrice	102	45 00	Goodwin, Rosa P.	102	30 00
Thomas, Ida M.	101	44 56	Hogg, Jennie A.	102	26 18
Walsh, Margaret	102	45 00	Levandier, V. D.	89	30 00
Amirault, Rose I.	102	30 00	Pothier, M. Annie	102	20 00
Amirault, Terese M.	102	30 00	*Reeves, Flora D.	51	22 16
Amirault, Muriel A.	102	30 00	*Ross, Georgie D.	56½	30 00
*Babin, Chantale	102	40 00	Shields, Dorinda F.	102	30 00
Babin, Bertha	78	22 94	Surette, Nemerise	102	30 00

## EDUCATIONAL LEGISLATION, 1910.

### AMENDMENTS TO THE EDUCATION ACT.

No. 2

BILL.

1910.

An Act to Consolidate the Amendments to The Education Act.

Be it enacted by the Governor, Council, and Assembly, as follows:—

1. The Education Act, Chapter 52 of the Revised Statutes, 1900, is hereby amended in the manner set forth in Schedule A herein.
2. The enactments set forth in Schedule B hereto are repealed.

#### SCHEDULE A.

Section 5.—By adding thereto the following subsection:—

“(21.) On the recommendation of an inspector, supported by evidence, that the union of any two or more sections or parts of sections will effect a saving in the amounts to be paid out of the municipal school fund and the provincial aid grant, the Council may, notwithstanding any provision of the Education Act, make regulations for the granting out of the said municipal and provincial grants such amounts as in the opinion of the inspector are necessary to maintain the said union by adding the conveyance from beyond a distance of two miles from the school house, provided the respective amounts so required are less than the respective amounts which would otherwise be drawn from the same sources.” (1903-4, C. 8, S. 2.)”

By inserting immediately after section 6 the following section:—

ADVISORY BOARD OF EDUCATION.

“6A. (1) There shall be a board, consisting of seven persons, which shall be known as “The Advisory Board of Education” and shall perform the duties mentioned in this section.

(2) Two members of the Board shall be elected by the licensed teachers engaged in teaching in the public schools in attendance at the Provincial Educational Association, and shall be licensed teachers actually engaged in teaching in Nova Scotia; five members of the said Board shall be appointed by the Governor-in-Council.

(3) The duties of said Board shall be to advise the council and the superintendent as to the following matters;—

(a) Text books and apparatus for use in the schools, books for school libraries.

(b) Qualification and examination of teachers.

(c) Courses of study for the public schools and the standard for admission to county academies and high schools.

(d) The classification, organization and discipline of the normal school, county academies and the public schools.

(e) Such other educational matters as may from time to time be referred to them by the superintendent or the council.

(4) Members of the Board shall hold office for two years, but shall be eligible for re-election or re-appointment.

(5) The Board may make regulations for the time, place and conduct of its meetings. Four members of the Board shall constitute a quorum.

(6) The members of the Board shall receive from the provincial treasury such sums as will indemnify them for any expenses incurred by them respectively by reason of attendance at the meetings of the Board.” (1906 c. 5.)

Section 11, sub-section (b) By repealing it and substituting therefor the following subsection:—

“(b) To annex to any incorporated town for school purposes, territory lying beyond the limits of the town and not

forming part of any other school section, and also any existing school section or part of a school section." (1903, c. 6, s. 1.)

Section 14—By repealing it and substituting therefor the following section:—

"14. Every district board shall at its annual meeting determine, subject to the recommendation of the inspector, what sections under its supervision are entitled to special aid as poor sections, during the following school year." (1903, c. 6, s. 2.)

Section 16, sub-section (2)—By repealing it and substituting therefor the following subsection:—

"(2) Notice of the next annual school meeting after any such sub-division or union, or of a special annual school meeting, if the date of the regular annual meeting is past or inconvenient, shall be given by the inspector; and such meeting shall elect a board of three trustees and transact all the other business of the regular annual school meeting for the ensuing school year, for the new section or sections." (1903, c. 6, s. 3; 1906, c. 8, s. 1; 1909, c. 18, s. 4.)

Section 21, sub-sections (1) and (2)—By repealing them and substituting therefor the following sub-sections:—

"21 (1). Except as in this section otherwise provided the regular annual school meeting of every school section shall be held in the school house of the section, on the last Monday in June.

(2) The Council may in the case of any inspectorial division, county or school section, fix an earlier day for the holding of such meeting. (1902, c. 39, ss. 1 and 2).

Section 23.—By repealing it and substituting therefor the following:—

"23 (1) The resident ratepayers, male and female, of the section present at any school meeting shall elect from their own number or otherwise a chairman to preside over the meeting, and a secretary to record its proceedings.

(2) The chairman shall decide all questions of order and shall take the votes of resident ratepayers only, except as in this Chapter otherwise provided in the case of the election of trustees; he shall not vote except in case of a tie, when he shall have the casting vote. (1907 c, 38, s. 1.)"

Section 24, sub-section (1).—By repealing it and substituting therefor the following sub-section:—

“24 (1) If any person who offers to vote at an annual or other school meeting is challenged as not qualified, the chairman presiding at such meeting shall require the person so offering to make the following declaration:

“I do declare and affirm that I am a ratepayer residing in this school section; that I have paid all sectional school rates for which I have been rated and that I am legally qualified to vote at this meeting.”

Every person who makes such declaration shall be permitted to vote on all questions proposed at such meeting; but if any person refuses to make such declaration his vote shall be rejected.” (1907 c. 38, s. 3, 1906 c. 8, s. 2.)

Section 28, sub-section (3).—By repealing it and substituting therefor the following sub-section:—

“(3) If there are no trustees in a section the inspector of schools may, on the requisition of seven ratepayers, or in case there are less than fourteen ratepayers in the section, on the requisition of the majority of ratepayers, call a special annual meeting under the foregoing provisions and limitations.” (1903 c. 6, s. 4.)

Section 37, sub-section (2).—By repealing it and substituting therefor the following sub-section:—

“(2) The board of trustees thus appointed shall, if necessary or if required by the inspector, call a meeting of the ratepayers of the section, in the manner provided for calling the annual meeting, and such meeting shall transact all business, except the election of trustees required of the annual meeting, and in the same manner.” (1903, c. 6, s. 5.)

Section 42.—By repealing it and substituting therefor the following section:—

“42.—The trustees of any section, with the permission of the inspector of schools, may in their discretion, admit to school privileges, pupils whose parents or guardians reside outside the section, and if the trustees deem it proper, they may exact from such pupils a reasonable tuition fee. (1904 c. 8, s. 3).”



Section 55, sub-section (b).—By repealing it and substituting therefor the following sub-section:—

“(b) To contract with and employ a licensed teacher or teachers for the section, and where necessary licensed assistants, for a period not less than one year; provided, however, that for special cause, with the consent of the inspector, trustees may employ a teacher for a shorter period.” (1907, c. 38, s. 4.)

By inserting immediately after Section 55, the following section;—

“55A. Every public school building shall be available, free of charge, for the purposes of the local technical schools and schools for miners and engineers, provided that such use of public school buildings shall not interfere with the carrying on of schools under the Act hereby amended. (1909, c. 18, s. 1.)

Section 59.—By repealing it and substituting the following section:—

“59. The secretary of trustees shall give a bond to His Majesty with two sureties, subject to the approval of the inspector, in a sufficient sum for the faithful performance of the duties of his office and such bond shall be lodged with the inspector, who may at any time require a new bond, or a bond in a larger sum in the place of the bond as lodged. Such bond may be in the form in the fifth schedule or to the like effect, and unless sooner terminated by the sureties or either of them according to law, it shall not be necessary to give any new bond, annually or otherwise, unless required by the inspector, so long as the secretary is re-elected to office.” (1909, c. 18, s. 2.)

Section 63.—By repealing it and substituting therefor the following section:—

“63. The trustees shall have power, when authorized by a school meeting, to borrow money for the purchase or improvement of grounds, for school purposes, or for the purchase or building of school houses; and all such amounts, so borrowed, shall be repaid with interest by such number of equal yearly instalments, not exceeding twelve, as is determined by such meeting; and the money so borrowed shall be a charge upon the ratable property in the school section.” (1903 c. 6, s. 6.)

By inserting immediately after Section 67 the following section:—

“67A. The time employed by the principal of the schools or the supervisor of the schools, of any school section in super-

vising or grading the schools, the time employed by teachers of his staff who are required to assist in the grading of any of the departments, the time teachers are in attendance at certain educational institutes with the consent of their trustees, and the time lost by the necessary closing of a school on account of such conditions as the presence of contagious disease, shall be reckoned as authorized teaching time in lieu of actual teaching on authorized teaching days, according to the conditions prescribed by the Council." (1901 c. 37, s. (2); 1906 c. 8, s. 7.)

Section 68.—By repealing it and substituting therefor the following section:—

"68. Every legally qualified teacher employed in a public school, conducted according to law, shall be entitled to receive annually from the Provincial Treasury, the following sums, or such proportion thereof as the number of days taught by such teacher bears to the prescribed number of teaching days in the school year. Said sum shall be paid in semi-annual instalments:—

For Class D in any public school . . . . .	\$ 60.00
" C       "       "       " . . . . .	90.00
" B       "       "       " . . . . .	120.00
" A, in a superior common or high school of prescribed status . . . . .	150.00
" Academic, in high school of prescribed status . . . . .	180.00
" Academic, when principal of the high school of prescribed status in a section having at least three departments . . . . .	210.00

(1906, c. 6.)"

Section 69.—By repealing it and substituting therefor the following section:—

"69. Any teacher of class Academic, A or B who has graduated from the rural science course in affiliation with the Provincial Normal School, in the course of instruction prescribed by the Council, and is regularly employed in a public school with the appropriate equipment giving a special course of instruction in agriculture, as prescribed by the Council, shall in the distribution of the provincial grant referred to in the next preceding section be ranked on the pay list of the said grant as, respectively, of the lower, higher or highest rank of teachers of classes A and Academic according to the equipment of the school and the agricultural instruction therein as reported by the inspector of schools whose duty it shall be to inspect such schools and classify the same as "fair," "good" or "superior." (1905 c. 19, s. 1; 1906, c. 8, s. 3.)

Section 71.—By repealing it and substituting therefor the following section:—

“71. When the trustees or commissioners of any school section provide a department for manual training in any of the mechanical or domestic arts, with adequate equipment for at least twelve pupils at the same time, and have employed a teacher certified by the Council to be competent to give practical instruction therein, and have caused such instruction to be given free for one session of two hours each week to the residents of the section, and have in these and in all other respects efficiently conducted the public schools of the section in accordance with law, then the Council may pay out of the Provincial Treasury to such trustees or commissioners, in semi-annual instalments or otherwise, as determined by the Council, a sum of fifteen cents for each two-hour lesson to each pupil, provided that the whole amount so paid out of the Provincial Treasury to such trustees or commissioners shall not, in any year, exceed six hundred dollars; except in the cases of any section the schools of which are affiliated with the Provincial Normal School and of the City of Halifax, in which two cases the amount shall not in any year exceed twelve hundred dollars.” (1901 c. 37, s. 1.)

By inserting immediately after Section 71 the following section:—

“71A.—(1) Every poor section determined under the provisions of section 14 of the Act hereby amended and the amendments thereto, which

(a) as isolated so as to be clearly impossible to be united with or absorbed into another school section or other school sections,

(b) is rated for sectional school rates on property assessed at a value of not more than \$3,000,

(c) has not within its bounds more than twelve families, and

(d) votes and collects for current school expenses at a rate of not less than two per cent on the property ratable for sectional school rates, shall be known as a special poor section.

(2) There may from time to time be paid to any special poor section out of the Provincial Treasury, upon the recommendation of the Inspector, and the authorization of the Council of Public Instruction, such grant in addition to the

extra aid provided for poor sections by this Chapter as may be recommended by the Inspector; provided, however, that in no case shall the said grant exceed the amount voted and collected by the section as sectional school rates, nor in any case the sum of \$60.00." (1908 c. 13, s. 1.)

Section 72.—By repealing it and substituting therefor the following section:—

"72 (1). The clerk of the municipality of every county or district shall annually add to the amount required for county purposes, but distinct from all other amounts required for such purposes, a sum sufficient after deducting the estimated cost of collection and probable loss, to yield an amount equal to thirty-five cents for every inhabitant according to the last census of the municipality and of all incorporated towns which before incorporation territorially formed part of such county or district.

(2) The said sum shall be divided between and borne by the municipality and the incorporated towns in the same proportions as the county fund, under the provisions of the Towns' Incorporation Act, and the Assessment Act and amendments thereto respectively, and shall be collected in the same manner as other rates and taxes.

(3) Notwithstanding the provisions of any statute, every incorporated town shall annually, on or before the thirtieth day of June, pay to the treasurer of the municipality of the county or district of which it before incorporation territorially formed part, its proportionate part of the said sum.

(4) The sum so raised by the municipality and incorporated towns shall be paid out annually for the support of schools by the treasurer of the municipality upon the order of the superintendent, and shall be called the Municipal School Fund.

(5) The council of any municipality may, by resolution, increase the municipal school fund to any amount not exceeding sixty cents for every inhabitant according to the last census of the municipality and incorporated towns, provided that the Council of every incorporated town affected by the increase, concurs in such resolution, or if such concurrence cannot be obtained that the Governor-in-Council, upon application by the municipality concurs in such proposed increase." (1903, c. 6, s. 7; 1903-4, c. 8, s. 4.)

Section 75, sub-section (2).—By repealing it and substituting therefor the following sub-section;—

“75—(2) Every school section shall be entitled to participate therein at the rate of twenty-five dollars per year for every licensed teacher employed, and a sum not exceeding twenty-five dollars, according to the recommendation of the Inspector for each school garden kept up to the standard of form and efficiency prescribed by the Council, and the balance of such fund shall be distributed among the school sections according to the average number of pupils in attendance at schools in such sections, respectively, and the length of time such schools have been in operation during the school year, but no such school section shall receive any additional allowance in respect to any school on account of its having been in operation more than the prescribed number of days in any year.” (1905 c. 19, s. 2.)

Section 76, sub-section (1).—By repealing it and substituting therefor the following sub-section:—

76.—(1) Subject to the provisions of this Chapter, the Superintendent shall allow to the trustees in any section, entitled to special aid as a poor section, one-half more from the municipal school fund than the allowance to other sections, and teachers employed in such poor sections shall receive one-third more from the provincial grant. (1904, c. 8, s. 5.)

Section 77.—By repealing it and substituting therefor the following section:—

“77.—Any amount required by a section over and above the sums provided out of the Provincial Treasury and municipal school fund, for the support and maintenance of a public school or schools during the school year, including the following objects, that is to say:—

- (a) the purchase or improvement of school sites or grounds.
- (b) the purchase, erection, furnishing, cleaning or repairing of school houses and outbuildings,
- (c) rent of buildings or lands,
- (d) insurance on school property,
- (e) the purchase of fuel, prescribed school books, books for the school library, maps and apparatus,

(f) repayment of money borrowed by the section and interest thereon,

(g) teachers' salaries and pensions.

(h) compensation to and repayment of expenses incurred by the trustees, for or in discharge of the duties imposed upon them by the provisions of this Chapter as to compulsory attendance at school, and the cost of conveying children to school, and

(i) any other expenditure necessary in providing an efficient school or schools in accordance with the provisions of this Chapter,

(j) any necessary expense for the periodical dental and general medical examinations of the pupils attending school,"

shall be determined by a majority of the ratepayers present at a regularly called school meeting. (1902, c. 39, s. 3; 1906, c. 8, s. 4; 1907, c. 38, s. 5.)

Section 78.—By adding thereto the following sub-section:—

"(3) Sections maintaining an ungraded school with one teacher shall not participate in the distribution of the said municipal school fund in regard to days' attendance made by the enrolled pupils for a greater number of days than eight thousand, except in cases in which an assistant teacher is employed by the trustees." (1904, c. 8, s. 5.)

Section 80. By repealing it and substituting therefor the following section:—

"80.—(1) Notwithstanding anything contained in the two preceding sections, all the real and personal property assessed according to the municipal assessment roll situated within the boundaries of school sections named in the second Schedule to this Act, excepting dyke lands, shall be liable for sectional school rates for the support of schools in such sections without regard to the place where the owners of such property reside, and such property shall not be liable to sectional school rates for the support of any school or schools other than those of such school sections; and property owned by persons residing within any of the said school sections and situate within the county, including cities and incorporated towns within the geographical limits of the county outside of such section, shall be ratable for school purposes in the section in which it is situate.

(2) In all the school sections in the County of Halifax (except the City of Halifax and the town of Dartmouth) all

the real and personal property assessed according to the municipal rate roll situated within the boundaries of such school sections, excepting dyke lands, shall be liable for sectional school rates for the support of schools in such sections without regard to the place where the owners of such property reside, and such property shall not be liable to sectional school rates for the support of any school or schools other than those of such school sections; and property owned by persons residing within the limits of the school section and situated within the County of Halifax (including the City of Halifax and any incorporated town within the geographical limits of the County of Halifax) outside of such section, shall be ratable for school purposes in the section in which it is situate.

(3) Between the City of Halifax and any incorporated town located within the geographical limits of Halifax County the provisions of section 79 shall apply.

(4) The Council of Public Instruction may, upon the recommendation of the Superintendent, add to said second Schedule, the name of any school section which applies by petition of a majority of its ratepayers to be added thereto." (1903, c. 4.; 1903-4, c. 9, s. 2.)

Section 85.—By repealing it and substituting therefor the following section:—

"85.—Every regularly ordained minister occupied in ministerial work, and every unmarried woman and widow, shall be exempt from sectional school rates on all property to the value of five hundred dollars, but shall be liable in respect to any excess over that sum.

Provided, however, that the exemption allowed by this section shall not apply in cases where the rate is upon the real estate and there is a male relative capable of managing said property, of the age of twenty-one years, residing with the widow, unmarried woman or wife, upon the property so assessed." (1905, c. 19, s. 3.)

Section 91.—By repealing it and substituting therefor the following section:—

"91. The secretary of trustees shall post up copies of the collector's roll in at least three public places in the section as soon as possible after he receives the same from the trustees, and shall file a copy thereof with the municipal clerk and shall, on request, file a copy thereof with the inspector." (1909, c. 18, s. 3.)

Section 93.—By repealing it and substituting therefor the following section:—

“93. The secretary of trustees shall demand the several amounts from the persons so rated in the collector's roll, and in default of payment such amounts shall be collected under the provisions of “The Assessment Act.”

And amounts so rated in respect to real property shall constitute a lien upon such property, which may be enforced under the provisions of “The Assessment Act.” (1905, c. 19, s. 4.)

Section 99.—By repealing it and substituting therefor the following section:—

“99.—(1). In any school section in which, up to the first day of July, the ratepayers neglect or refuse to make adequate provision for the maintenance of a school (including the necessary equipment and repairs to a school house or the provision of a temporary school room) during the following school year, the trustees of the school section shall name the sum of money which they deem sufficient therefor, or which may be necessary to supplement an inadequate sum already voted by the ratepayers, and such sum shall be submitted to the district board of school commissioners or to the committee of the said board appointed under section thirteen of the act hereby amended, and be subject to their approval. If the said board or committee thereof approves the said sum and orders it to be collected, the said trustees shall promptly levy and collect the sum so approved in the same manner as if it had been voted for school purposes at a regular school meeting called for the purpose.

(2) . If the trustees of any section neglect or refuse to apply to the board of commissioners or its committee under the authority of the foregoing clause, or if they neglect or refuse to provide a school in case necessary funds have been voted by the ratepayers or approved by the district commissioners or its committee, or if up to the first day of July no annual meeting of the section has been held, or if no trustees have been elected, it shall be the duty of said board or its said committee, as soon after the first day of August as convenient, when notified by the inspector of the conditions in any such school section, to appoint one or more persons interested in maintaining a school in said section as a new board of trustees for the remainder of the then current school year, and the trustee or trustees so appointed shall have all the powers of trustees elected by the ratepayers; and the duties and powers of the trustees, if any, elected by the ratepayers, shall thereby be suspended during said period.



(3) The said trustee or trustees so appointed shall forthwith name the sum of money which is deemed sufficient for the support of the school for the remainder of the year (if sufficient money has not been already voted) and submit their estimate to the board or its committee for its approval, and if approved and ordered to be collected by the said board or its committee, the said sum so approved shall be collected by the said new trustee or trustees in the same manner as if it had been voted for school purposes, at a regular school meeting.

Provided however, that if the district board or its committee is unable to secure a suitable trustee or trustees, they shall notify the inspector of that fact, in which case the inspector shall have all the powers of trustees for the said period as provided in this section, and shall forthwith estimate and name the sum of money which he deems sufficient for the maintenance of the school for the remainder of the year, and shall submit his estimate to the said board or its committee for its approval as above provided for, which approval, if given, shall be communicated to the inspector by the said board or its committee in writing.

(4) The inspector shall certify the said sum to the municipal clerk who shall levy the said sum so fixed on the section in the same manner as if voted for school purposes at a regular school meeting called for the purpose, and shall prepare a collector's roll for the collection of the same. The regular municipal collectors shall collect such rates and taxes in the same manner and with the same remedies and for the same remuneration as in the case of other rates and taxes, and shall return the same to the municipal treasurer.

(5) The amount so collected shall be paid on the order of the inspector to meet the necessary expenses for the support of the school in the said section.

(6) Nothing in this section shall be construed to relieve trustees from the penalty imposed by section 39 of the Act hereby amended." (1909, c. 19.)"

By adding immediately after section 109 the following section:—

"109A.—(1). Subject to the authority of the Trustees the teacher shall have a general oversight over the school premises during school hours, and may exclude therefrom all persons who disturb or attempt to disturb the school work."

"(2) Every person who, in or upon any school premises and in the presence of a pupil or pupils attending such school,

uses profane, threatening, abusive or improper language towards the teacher, or speaks or acts in such a way as to impair the maintaining of discipline by the teacher in such school, shall be liable to a penalty of not less than five dollars nor more than twenty dollars, and in default of payment, to imprisonment for a period not exceeding thirty days." (1905, c. 19.)

Section 120, sub-section (1), clauses (b), (c) and (d).—By repealing them and substituting therefor the following sub-sections:—

(b) For the second teacher, three hundred dollars, provided there is an average annual attendance of at least thirty-five regularly qualified high school students pursuing a full course;

(c) For the third teacher, three hundred dollars, provided there is an average annual attendance of at least seventy regularly qualified high school students pursuing a full course;

(d) For the fourth teacher, two hundred dollars, provided there is an average annual attendance of at least one hundred regularly qualified high school students pursuing a full course." (1906, c. 8, s. 6.)

## PART II.

### TEACHERS' ANNUITIES.

By adding after section 124 the following sections:—

"125. Teachers who have taught in the public schools of Nova Scotia for thirty-five years or who have attained the age of sixty years, after thirty years of service, shall be entitled to retire with an annuity equal to the provincial aid granted to teachers of their respective classes of license, provided, however, that no teacher shall receive more than \$150.00 per annum under the provisions of this section.

"126. Teachers who, after twenty years' service, become totally disabled or incapacitated from any cause, may, on satisfactory proof of such total disability or incapacity, retire, so long as the total disability or incapacity exists, and shall be entitled to receive the annuity mentioned in the next preceding section.

"127. School boards, municipal councils and trustees are hereby empowered to supplement such annuities under pension or superannuation systems provided by the Council, or

regulations approved by the Council, and may also similarly provide for other teachers or educational officers employed by them who may not be beneficiaries under the next two preceding sections.

"128. Moneys payable under the provisions of this part, shall not be transferable and shall not be liable to be taken by legal process to satisfy any debt or judgment.

"129. The Council may from time to time make regulations for carrying into effect the provisions of this part. Such regulations shall be published in the Journal of Education.

"130. School boards, municipal councils and trustees are hereby empowered to enter into any agreement with any annuity company to undertake the payment of such annuities under such agreements as may be approved by the Council." (1906, c. 7; 1907, c. 38, s. 7.)

### PART III.

#### CONSOLIDATION OF SCHOOLS.

131. The Council of Public Instruction is authorized to expend a sum not exceeding thirty-six thousand dollars for the purpose of assisting in consolidating school sections and the schools therein, and in arranging for the conveyance of pupils to and from such consolidated schools.

132. Such sum shall be expended in accordance with regulations to be made by the Council, and shall be paid out of the Provincial Treasury upon the order of the secretary of the Council.

133. A copy of all regulations made under the provisions of this part shall be laid before the House of Assembly and Legislative Council within the first ten days of the next session of the Legislature after the regulations are made.

### PART IV.

#### SCHEDULES.

The second and third Schedules of said Chapter 52 are repealed and the second and third schedules in this part substituted therefor, and the fifth Schedule in this part added to said Act.

## SECOND SCHEDULE.

## INSPECTORIAL DIVISION, NO. 1.

All sections in the Municipal District of Halifax.

## INSPECTORIAL DIVISION, NO. 2.

## LUNENBURG AND NEW DUBLIN.

No. 2	First Peninsula.	No. 40	Meisner's.
No. 3 $\frac{1}{2}$	Centre Range..	No. 44	Oak Hill.
No. 4	Garden Lots.	No. 57	Lr. Second Peninsula.
No. 7	Hieckman's Island.	No. 60	Clearland.
No. 16	Lower La Have.	No. 80	Hebb's Mills.
No. 22	North West.	No. 86	Wileville.
No. 24	Whynacht.	No. 97	Pine Grove.
No. 25	Mader's Cove.	No. 100	East Dublin.
No. 26	Mahone Bay.	No. 107	Upper Woodstock.
No. 27	Oakland.	No. 109	Rosebud.
No. 30	Block House.	No. 111	Lr. Woodstock.
No. 35	Parkdale.		
No. 38	Stanbourne.		

## SOUTH QUEENS.

No. 9.....Milton.

## INSPECTORIAL DIVISION, NO. 3.

YARMOUTH.		No. 23	Hebron.
No. 2	Melbourne.	No. 24	Dayton.
No. 3	Arcadia.	No. 34	Carleton.
No. 8	Overton.	ARGYLE.	
No. 9	Cape Forchu.	No. 35	Plymouth.
No. 10	South Cheggogin. . .	SHELBURNE.	
No. 12	North Cheggogin.	No. 17	East Jordan.
No. 13	Sanford.	No. 18	Jordan Falls.
No. 14	Port Maitland.	No. 19	Upper West Jordan.
No. 15	Richmond.		
No. 16	Norwood.		
No. 17	Lake Annis.		
No. 20	Brenton.		
No. 21	Ohio.		

## INSPECTORIAL DIVISION, NO. 4.

## ANNAPOLIS, WEST.

No. 45.....Allen River.

## DIGBY.

No. 18	Weymouth Bridge.
No. 19	Weymouth Mills.
No. 22	Sissiboo Falls.
No. 28	Digby.

## INSPECTORIAL DIVISION, NO. 5.

## KINGS

No. 24.....Waterville C).  
 No. 37.....Cold Brook.

No. 79.....Grand Pre.  
 No. 82.....Middle Pereaux.

No.	41	.....	Canaan.
No.	45	.....	Sheffield Mills.
No.	49	.....	N. Scott's Bay.
No.	50	.....	Scott's Bay Road.
No.	52	.....	Upper Pereaux.
No.	54	.....	Habitant.
No.	56	.....	Woodside.
No.	60	.....	Town Plot.
No.	64	.....	New Minas.
No.	73	.....	Avonport.
No.	75	.....	Islands.
No.	77	.....	Prospect.

No.	83 and 39	.....	Halfway River.
No.	85	.....	Upper Gaspereaux.
No.	86	.....	West Black Rock.
No.	88	.....	Pleasant View.
No.	91	.....	White Rock.
No.	92	.....	Rockland.
No.	96	.....	South Tremont.
No.	99	.....	Highbury.
No.	102	.....	Kingsport
No.	104	.....	Garland.
No.	109	.....	West Brooklyn.
No.	110	.....	South Waterville.

HANTS, WEST.

No.	2	.....	Wentworth.
No.	11	.....	Mt. Denson.
No.	14	.....	Belmont.
No.	15	.....	Poplar Grove.
No.	17	.....	Kennetcook Dyke.
No.	19	.....	Summerville.
No.	20	.....	Cheverie.
No.	23	.....	Pembroke ..
No.	25	.....	Cogmagun.
No.	35	.....	St. Croix.
No.	38	.....	Ellershous.
No.	39 and 24	.....	Walton.
No.	45	.....	Mills.

HANTS, EAST.

No.	6	.....	West Gore.
No.	14	.....	East Indian Road.
No.	27	.....	Urbania.
No.	31	.....	Upper Selma.
No.	33	.....	Noel Shore.
No.	37	.....	Moose Brook.
No.	42	.....	Kennetcook Church.
No.	50	.....	Gore.

INSPECTORIAL DIVISION, NO. 6.

ANTIGONISH.

No.	33	.....	E. Har. au Bouche.
No.	49	.....	West River.
No.	56	.....	Brierly Brook.

GUYSBORO.

No.	19	.....	Hazel Hill.
No.	38	.....	Pirate Harbour.

INSPECTORIAL DIVISION, NO. 7.

RICHMOND.

No.	8	.....	D'Escousse.
No.	18	.....	Grandique.
No.	19	.....	Louisdale.
No.	21	.....	Walkerville.
No.	32	.....	Seaview.

INSPECTORIAL DIVISION, NO. 8.

NORTH INVERNESS.

No.	58	.....	Whycocomagh.
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VICTORIA.

No.	1	.....	Baddeck.
No.	29	.....	South Gut.

INSPECTORIAL DIVISION, NO. 9.

PICTOU, SOUTH.

No.	4	.....	White Hall.
No.	5	.....	Marshdale.
No.	9	.....	Riverton.
No.	10	.....	Fox Brook.
No.	14	.....	Springville.
No.	15	.....	Bridgeville.
No.	16	.....	Glencee.
No.	36	.....	North Fraser's Mt.
No.	37	.....	Little Harbour.
No.	38	.....	Pine Tree.
No.	39	.....	Sutherland's River.
No.	40	.....	West Merigomish.
No.	41	.....	Merigomish.
No.	42	.....	Piedmont Valley.
No.	44	.....	Lr. Barney's River.
No.	57	.....	Meiklefield. j

No.	17	Sunny Brae.
No.	19	Blanchard.
No.	26	Kirk Mount.
No.	30	Linaey.
No.	31	Brookville.
No.	33	Trenton.
No.	34	Abercrombie.

No.	59	S. McLellan's Mt.
No.	60	N. Little Harbor.
No.	63	Upper Hopewell.
No.	64	Wentworth Grant.
No.	71	Thorburn.
No.	74	Centredale.
No.	75	Eureka.

## PICTOU, NORTH.

No.	2	Cariboo River.
No.	7	Poplar Hill.
No.	9	Marshville.
No.	15	Bigney.
No.	22	South Dalhousie.
No.	23	Millsville.
No.	27	Scotsburn.

No.	30	Roger's Hill.
No.	37	West River Station.
No.	39	Landsdowne.
No.	40	Millbrook.
No.	42	Pleasant Valley.
No.	48	Durham.
No.	51	Lr. Scotch Hill.
No.	53	Fisher's Grant.
No.	56	Cariboo Island.

## INSPECTORIAL DIVISION, NO. 10.

## CUMBERLAND.

No.	24	Upper Pugwash.
No.	27	Roslin.
No.	29	Victoria.
No.	39	Warren.
No.	45	Maccan.
No.	62	East Mapleton.
No.	66	Wyndham Hill.
No.	81	River Philip.
No.	90	Farmington.
No.	93	Lake Road.
No.	107	Clifton.
No.	115	Black River.

No.	117	Springhill Junction.
No.	119	Valley Road.
No.	123	South Pugwash.

## PARRSBORO.

No.	3	New Prospect.
No.	4	Green Hill.
No.	5	Black Rocks.
No.	6	Cross Roads.
No.	14	Advocate.
No.	17	Lakelands.
No.	20	Sugar Hill.

## INSPECTORIAL DIVISION, NO. 11.

## CAPE BRETON.

No.	8	Lakevale.
No.	65	Catalone.
No.	67	Clark's Road.
No.	68	Mainadiou.

No.	71	Little Lorraine.
No.	72	Big Lorraine.
No.	74	West Louisburg.

## INSPECTORIAL DIVISION, NO. 12.

## COLCHESTER, SOUTH.

No.	3	Upper Onslow.
No.	12	Nutby.
No.	14	Central North River.
No.	21	Riversdale.
No.	24	Cambden.
No.	35	Brookfield.
No.	38	Alma.
No.	45	Coldstreams.
No.	46	St. Andrews.
No.	56	Cross Roads.
No.	59	Smithfield.

## COLCHESTER, WEST.

No.	7	Pleasant Hills.
No.	10	Castlereagh.
No.	15	Acadia Mines.
No.	18	Folly Village.
No.	20	Masstown.
No.	23	Folly Lake.
No.	24	Londonderry Station.

## STIRLING.

No.	6	French River.
No.	8	Murphy's.
No.	21	Brule.
No.	29	Denmark.

THIRD SCHEDULE.

TEACHER'S OATH.—(SECTION 105.)

"I, ....., a duly licensed teacher of class ....., of the Province of Nova Scotia, make oath and say that I have taught and conducted school in ..... district of ..... school section, No. .... with law, for the period of\* ..... authorized teaching days, from the ..... day of ..... to the ..... day of ..... during the school year, ending July, 19..... days during FIRST half-year and\*† ..... days during SECOND half-year; that in addition I was employed as specified in the regulations of the Council, Nos. ...., for\* ..... days, namely:‡

..... that the prescribed register has been faithfully and correctly kept by me in every particular as prescribed, and that to the best of my knowledge and belief the total days' attendance in this school, made by the enrolled pupils in the said period was\* .....; that my agreement with the trustees is in accordance with the statutes and regulations and that there is no collusive understanding by which any portion of the agreement is to be made of no effect.

..... Teacher.

Sworn to at ..... in the county of ..... this ..... day of ..... A. D., 19....., before me, ..... J. P., in and for the County of

- \*The numbers to be expressed by words, not figures.
- †To be filled in with a dash in semi-annual returns.
- ‡If teacher claims no additional days under regulations the blank following to be filled in with a dash, or specify the employment, with date.

FIFTH SCHEDULE.

(SECTION 59.)

PROVINCE OF NOVA SCOTIA.

Know all men by these presents, that we (name of secretary) as principal, and (names of sureties) as sureties, are held and firmly bound unto our Sovereign Lord Edward VII, by the Grace of God, of the United Kingdom of Great Britain and Ireland, King, etc., in the sum of ..... dollars of lawful money of Canada, to be paid to our said Lord the King, his heirs and successors, for the true payment whereof we bind ourselves, and each of us, by himself, for the whole and every part thereof, and the heirs, executors and administrators of us and each of us firmly by these presents, sealed with our seals and dated this ..... day of ..... in the year of our Lord, one thousand nine hundred and .....

Whereas the said ..... has been duly appointed to be secretary to the board of trustees for ..... in the district of ..... school section No. .... Now the condition of this obligation is such, that if the said (name of secretary) do and shall, from time to time, and all times hereafter, during his continuance in the said office, well and faithfully perform all such acts and duties as do or may hereafter appertain to the said office by virtue of any law of this Province, and shall in all respects conform to and observe all such rules,, orders

and regulations as now are or may be from time to time established for or in respect of the said office; and if on ceasing to hold the said office, he shall forthwith on demand, hand over to the trustees of the said school section or to his successor in office, on the order of the trustees, all books, papers, moneys, accounts and other property in his possession by virtue of his said office of secretary, then said obligation to be void; otherwise to be and continue in full force and virtue.

(Name of Secretary)

(Seal.)

(Names of sureties)

(Seals.)

Signed, sealed and delivered in the presence of . . . . .

.....

(Name of Witness.)

#### SCHEDULE "B."

Enactments repealed by Section two of this amending Act.

Acts of 1901	Chapter 37.
Acts of 1901,	Chapter 38.
Acts of 1902,	Chapter 39.
Acts of 1903,	Chapter 4.
Acts of 1903,	Chapter 5.
Acts of 1903,	Chapter 6.
Acts of 1903,	Chapter 22.
Acts of 1903-4,	Chapter 8.
Acts of 1903-4,	Chapter 9.
Acts of 1905,	Chapter 19.
Acts of 1906,	Chapter 5.
Acts of 1906,	Chapter 6.
Acts of 1906,	Chapter 7, except section 8.
Acts of 1906,	Chapter 8.
Acts of 1907,	Chapter 38.
Acts of 1908,	Chapter 13.
Acts of 1909,	Chapter 18.
Acts of 1909,	Chapter 19.



**THE MORE IMPORTANT REGULATIONS OF THE  
C. P. I., AS FINALLY AMENDED SINCE THE  
CONSOLIDATION IN THE MANUAL OF 1901.**

**ACADIAN SCHOOL REGULATIONS, 1908.**

Ordered By the C. P. I.

1. That a bilingual visitor of schools in French-speaking school sections throughout the Province be appointed, who shall be known as the Bilingual Visitor of Acadian Schools, and whose duties will be supplementary to those of the regular Inspector of each inspectorial division. It shall be his special duty to aid the Inspectors and Superintendent in making the schools in French settlements more efficient in every respect authorized by law, his command of the French language being intended to enable him to supplement as circumstances require, the work of the Inspectors.

In carrying out these general directions he shall, as far as possible, co-operate with the Inspectors, and like them also report monthly on his work to the Superintendent; and at the end of the year present a report on the state and progress of education in the Acadian schools in the different parts of the Province, with reasoned recommendations for such improvements as he may be able to specify.

2. A bilingual course of a few weeks shall be given free each year during vacation time in the Provincial Normal College at Truro, to French speaking teachers to prepare them to teach English colloquially to French pupils coming to school without a knowledge of English; in order that by the time the pupils have completed the first four grades of the public school program, all work of instruction can be carried on effectively thereafter in English. Travelling expenses to and from this course shall be paid at the rate of five cents per mile.

3. In schools where a large number of pupils attend who cannot understand English, the trustees are authorized to allow the use of the prescribed French Readers for such pupils, provided the teacher is capable of giving colloquial instruction in English, as specified in the foregoing regulation, and is giving it so effectively that by the end of the fourth year, the pupils can henceforward be effectively instructed through the medium of the English language. But no language except English shall be imperative on any pupil.

4. As many educational authorities believe a colloquial system (such as the Berlitz) to be the most expeditious and economical method of acquiring a new language, school trustees shall continue to be free to employ English speaking teachers under any such conditions as specified in the foregoing regulations.

**THE ACADIAN COMMISSION.**

The origin of these regulations, was the desire to carry out the recommendations of the Acadian Commission which sat in the month of April, 1902.

On the 18th April, 1902, it was recommended to His Honour the Lieutenant-Governor:—

“That the following gentlemen be appointed as Commissioners under the provisions of Chapter 12, Revised Statutes, 1900, for the purpose of investigating the

"best methods of teaching English in the schools situate in the French districts of the province and generally to make any suggestions to the Educational Department which would have the effect of bringing about greater educational progress in such districts.

"Rev. P. Dagnaud, of Church Point.

"W. E. Maclellan, of Halifax.

"Prof. A. G. Macdonald, of Antigonish.

"Rev. W. M. LeBlanc, of Arichat.

"Alexander McKay, Supervisor of Schools, Halifax.

"Hon. A. H. Comeau, of Meteghan River.

"Rev. A. E. Mombourquette, of East Margaree.

"M. J. Doucet, M. P. P., Grand Etang."

The Commission was promptly appointed, and after examination of witnesses and due deliberation, the following report was made, and afterwards presented to the Council of Public Instruction:—

To The Honourable

ALFRED GILPIN JONES,  
Lieutenant-Governor of Nova Scotia.

May it Please Your Honour:

We, the undersigned members of the Commission appointed by your Honour "for the purpose of investigating the best methods of teaching English in the schools situated in the French-speaking districts of the Province, and generally to make any suggestions to the Educational Department which would have the effect of bringing about greater educational progress in such districts, under the provisions of Chap. 12, of the Revised Statutes of 1900," beg leave to report as follows:—

Your Commission have devoted twelve long sessions, extending over more than a week to enquiries concerning and the consideration of this highly important subject. They have had before them and carefully examined a number of witnesses from the various parts of the Province coming directly within the scope of their Commission. They have summoned and heard the testimony of expert language-teachers, both English and French. They have listened to and weighed the statements of Government Inspectors having the supervision of French-speaking schools, and of teachers in such schools. They have thoroughly discussed and most faithfully considered the problem set before them in all its bearings.

Their investigations and deliberations have been marked throughout by the greatest harmony and by the conspicuous absence of any mere sectional, partisan or racial spirit. They have been able to reach the conclusions which they are about to submit to your Honour not only unanimously but without friction or unpleasantness of any sort.

The first enquiries of your Commissioners were naturally directed towards determining the relative standing of French and English-speaking schools, with a view to discovering whether the former are being or have been subjected to any considerable disadvantage under our educational system as compared with the latter. All the evidence before your Commissioners goes conclusively to show that, while there is no appreciable difference in intellectual capacity between French and English-speaking pupils or between French and English-speaking districts, the average rate of progress of the former is considerably less than that of the latter. Weighty testimony was forthcoming to show that while this is the case, French-speaking pupils are generally more regular school attendants and often more eager learners than English-speaking pupils in the same Inspectorial Districts.

Your Commissioners have unanimously reached the conclusion, that the French-speaking sections of the Province have been and continue to be at a very serious disadvantage in the matter of education. They believe a measure of that disadvantage to be incident to and inseparable from their position as small French-speaking communities in the midst of larger English-speaking ones. They believe further, however, that a considerable part of that disadvantage is due to misconceptions on the part of more or less incompetent teachers and to lack of understanding on the

part of officials and others of the aim and spirit of the school law of the Province and to some extent to certain remediable defects in the School Law and Regulations themselves.

Your Commissioners find that the fundamental error in dealing with the French Schools, which must be held responsible for many of their short-comings, has been the assumption that they must be taught exclusively in English. They find that with startling uniformity and persistency attempts have been made and are being made to educate children from French-speaking homes and with none but French-speaking playmates by means of the English language alone, sometimes from the lips of teachers who can speak nothing but English. They find from the testimony of experts that even were such teachers masters of the most approved modern methods of teaching a foreign language but meagre results could be anticipated from their best efforts under such conditions. They find that with the inexperienced, ill-taught and often otherwise incompetent teachers ordinarily available for employment in such schools the efforts, however conscientious, made to teach the children to speak English are, as might be anticipated, largely a failure. They find also that, while futile attempts to teach them English are thus being put forth, the general education of French-speaking pupils is being more or less seriously or sometimes even totally neglected.

With a view to remedying these defects and redressing serious grievances which they believe should be removed as speedily as possible, your Commissioners have unanimously reached the following conclusions which they submit to your Honour, in the hope that they may be approved by you and by your Council of Public Instruction, and that due effect may be given to them in the future regulations and directions of the Educational Department of the province. Your Commissioners are unanimously of the opinion,—

First, "that English can be best and most effectively taught in the French-speaking school-sections of Nova Scotia by the daily use in speaking and writing of that language, taught according to the most approved methods, from the pupils' first entrance into school, to be followed by the use of the prescribed English readers as soon as they can be intelligently used by such pupils, not later than the 3rd or 4th grades.

Second, "that the general education of French-speaking pupils should be carried on concurrently with their acquisition of the use of English, and that this can be successfully accomplished only by the use of their vernacular; that, therefore, as long as necessary they should, while learning English, be taught the other subjects of the curriculum in French, provided however, that the use or study of French shall be optional with every pupil.

Third, "that, as far as practicable, in the French-speaking schools of this Province, only bi-lingual teachers should be employed."

Your Commissioners have been forced to this last conclusion because they are convinced that only French-speaking teachers are ordinarily competent to manage and properly instruct French-speaking pupils from French-speaking homes in French-speaking communities during the earlier years of their school attendance or until they have acquired a working knowledge of the English language. They believe that the difficulties of teaching the use of English under the conditions prevailing in our French-speaking sections are so greatly increased that it would be not far from impossible for even the most expert of language teachers to carry on the primary education of the pupils by means of it alone.

Your Commissioners have, further unanimously agreed upon the following recommendations which they make to your Honour as the logical outcome of their above conclusions:—

First, "that a special series of French reading-books suitable for grades one to four should be prescribed for use in French-speaking school sections.

Second, "inasmuch as the evidence given before your Commissioners shows conclusively that the majority of schools in French-speaking sections are not making satisfactory progress, largely in consequence of faulty methods in teaching English, that the Council of Public Instruction should provide a short course, of some weeks' duration, during the summer holidays in the Normal School, for the purpose of im-

parting to bi-lingual teachers the most approved methods of teaching English in such sections, and that teachers attending such course be treated in the matter of travelling expenses in the same manner as is now provided for those attending the regular sessions of the Normal School.

Third, "that, for the future, Inspectors of Schools be required to make a special annual report to the Department of Education on the general progress of such schools, but particularly on the progress made in the study and use of English and on the methods adopted in teaching it."

All of which is dutifully and most respectfully submitted by your Commissioners, who have the honour to be,

Your Honour's obedient servants.

W. E. MACLELLAN, Chairman.  
A. H. COMEAU.  
A. G. MACDONALD, A. M.  
P. M. DAGNAUD.  
W. M. LEBLANC.  
M. J. DOUCET.  
A. E. MOMBOURQUETTE.  
A. MCKAY.

Halifax, April 28th, 1902.

The finding of the commission, it appears, was unanimous; and in view of that fact the Council of Public Instruction authorized the carrying out of its recommendations in the most careful manner.

#### MANUAL TRAINING, 1903.

Ordered, that under section 71 of Chapter 52, of the Revised Statutes of 1900, no public money shall be paid to school boards for the instruction of pupils in Manual Training Schools, who have not advanced as far as Grade VI. of the Public School Course; except when specially authorized by the Education Department, for pupils over thirteen years of age; and that the grants on account of the Domestic Science departments of such schools shall not exceed one-half of the maximum grant allowed under the law of the school board of Manual Training in the Mechanic and Domestic Sciences.

#### REGULATIONS FOR THE STRENGTHENING OF SCHOOL SECTIONS, &c.

Reg. 10 (a). No school section, although regularly placed on the list of "poor sections", shall be deemed qualified to participate in the extra allowance provided for "poor sections", unless the sectional assessment voted, levied and collected, shall be at least equal to the average rate of sectional assessment in the county.

Reg. 10 (b). Two adjacent school sections which cannot afford to employ a qualified teacher for the whole year, may arrange with the Inspector of schools, to be associated together as a "double-section," the teacher to be employed in the school house of one section for one half of the year, and in the other school house for the other half of the year.

Reg. 10 (c). When an enlarged school section has one or more settlements considerably beyond two miles from the school house, the Inspector may arrange with its Trustees to recommend to the Council of Public Instruction the granting of a portion of the Provincial Aid and Municipal Fund, which can be assumed to be saved by the enlargement of the section and the reduction of the number of schools, to subsidize the conveyance of pupils from such settlements to the school house, say for instance, in the morning, allowing them under ordinary conditions to return to their homes without conveyance.

Reg. 15 (e). It shall be the duty of each Inspector to classify the school sections within his division into first, second and third class sections, which in order to enjoy the full regular grants of public money, should employ respectively teachers having at least the corresponding classes of license. Such classification may be revised annually, any change being intimated to the secretary of the school board affected before the date of the regular annual meeting of the section. Any section shall be free to employ a teacher of higher class than its ranking, but not free to employ a teacher of lower class than its ranking except on the express authorization of the Inspector for sufficient reasons, such as the lack of teachers of the class required.

FOR CONSOLIDATED SCHOOL SECTIONS WHICH ARE BENEFICIARIES UNDER CHAPTER 22 OF THE STATUTES OF 1903.

Ordered:

(1) That in the case of consolidated school sections which received the special Provincial Grant under Chapter 22 of the Statutes of 1903, the conveyance of pupils shall be from points more than two and one-quarter miles from the school house, to a point which will afford such pupils the advantages as to distance enjoyed by those not more than two miles distant, and must be satisfactory to the Inspector of Schools.

(2) Under no circumstances shall it be deemed necessary to convey such pupils further than to and from a point within one and a half miles of the school, or the same distance towards the school in the morning, or the same distance towards the pupils' homes in the evening, as can be most economically arranged.

(3) The Trustees of the Section will endeavor, as far as compatible with the regulations of the C. P. I., to meet the reasonable desires of parents and pupils in the arrangements and equipment for the said conveyance, any point of difference to be referred to the Inspector for decision.

(4) The Trustees in making arrangements for conveyance, shall take the ordinary precautions to have as satisfactory service as possible, at the most economical rate of cost to the section. It is recommended when it may be found expedient, to grant allowances to parents or guardians for the conveyance of their children or their neighbors' children, in which cases the sectional school tax or any portion of it may be remitted to such persons by the Trustees, as a part of such allowance agreed upon.

(5) Generally it may be found most convenient for Trustees to call for tenders for conveyance along certain definite routes at definite times, with a definite equipment, under the oversight of responsible drivers or other persons, in order to ascertain the cost; but Trustees should keep themselves free to make cheaper arrangements when possible, with equally satisfactory conveying—all arrangements for which are subject to the approval of the Inspector.

(6) That the power conferred upon Boards of School Commissioners by Sec. 17 of the Education Act, with respect to ordinary school sections, be recommended to be applied to distant and isolated ratepayers in Consolidated sections, due regard, however, being paid to the object for which Consolidated sections have been established.

(7) Only resident pupils of the school section from 7 to 14 years of age are to be conveyed free, but other pupils may be carried on the payment of a reasonable fee which will not allow their conveyance to be at the cost of the school section, unless provision had been made for conveying such pupils at the annual meeting of the school section.

(8) All previous regulations inconsistent with these are hereby repealed.

DECISIONS ON SOME LIMITATIONS OF THE POWERS OF SCHOOL TRUSTEES.

1. School trustees have power to rent temporary school rooms when there is not sufficient accommodation in the public school rooms; but they cannot use for public schools, rooms which are not, for the time, completely under their control for school purposes, so that they can be held responsible for the character of the accommodation which must be in accordance with law.

2. School trustees cannot vacate a public school room for any other room except in order to have it repaired, providing it should be deemed capable of repair; or for some sufficient reason affecting the school section as a whole, such as to secure better grading, but not to suit the desires of individual parties or sects.

3. Any arrangement of school rooms which may (1) prevent the exercise of supervision by the principal teacher of the school section; or (2) prevent the efficient grading

of the departments in charge of such teacher, is not compatible with the spirit of the school law. If either of these irregularities exist, and continue after notification by the Inspector, the schools cannot participate in the public grants.

4. It is legal for pupils in a section with only a few departments, which cannot have, therefore, more than one series of grades, to meet for devotional exercises in another room than the one in which they are registered for the work of the grade, the arrangements for exchange to be co-ordinated by the principal so that there may be no confusion or unnecessary loss of time. Separate devotional exercises may thus be held simultaneously to suit the desire of different pupils who during the rest of the day will be in their regularly graded class-rooms.

#### SCHOOL THROUGH SUMMER VACATION.

Ordered, That on the recommendation of the Inspector, the Superintendent of Education may allow schools closed during the earlier portion of the school year on account of the impossibility of obtaining a regularly qualified teacher, to continue the school during the summer vacation, so as to make up any portion of the time of teaching lost, provided a special return be sent in to the Inspector for the time taught during the said vacation period, and that the public grants shall become due on the said special return at the end of the following half-school year.

#### UNIVERSITY GRADUATES.

Ordered that regulation 23 (b) be amended by the addition of the following sentence: In an emergency and on the special recommendation of the Inspector, a University graduate in Arts or Science, who holds a teacher's license of a class lower than First (class B) may be provisionally employed as a principal of any school for a period not exceeding one year, after which he will cease to be eligible for any such position without an advance in class of license, until he is regularly qualified.

#### NOTICES OF ENGAGEMENTS AND OPENINGS.

25. The Secretary of the school trustees shall notify the Inspector in writing as soon as any teacher is engaged, stating the *name* and *class* of license of the teacher, and the salary promised. If any such engagement is broken without mutual agreement, the Inspector as soon as informed thereof, shall report the teacher to the Council of Public Instruction as presumably liable to suspension of license.

27. Every teacher, assistant or substitute *as soon as engaged* to teach in any school, shall mail, or otherwise directly send a written notice to the Inspector of the Division intimating the *fact*, the *class* of license held, with its *year* and *number*, the *period* of engagement, the *address* of the Secretary of School Trustees, and the *name* of the school section where last engaged. This shall be followed by a notice of the opening of school mailed not later than the day following.

This intimation shall be kept on file in the Inspector's office; and any delay on the part of the teacher in giving such notice shall render him or her liable to the loss of provincial grants up to the date of proper notification.

A teacher intending to compete for (1) superior classification as a Class "A" teacher, or (2) classification as a Rural (Agricultural) Science teacher, or (3) a school library grant, or (4) an Inspector's Certificate for promotion, or (5) any other special consideration provided for in the school laws, shall give due information thereof to the Inspector in writing as early as possible, but not later than the last day of September.

Regulation 34 (a) is amended by inserting after the word "school" in the second line of the Regulation as it appears in the "Manual of School Law, Nova Scotia, 1901," page 65, the clause "if also the principal of all the schools of the Section."

#### SEMI-ANNUAL ADVANCE OF CLASS OF LICENSE.

The semi-annual payment of Provincial Aid to teachers shall be paid on the basis of the class of license held at the opening of the school each half year.

#### RURAL SCIENCE SCHOOLS AND GARDENS.

Regulation 36, pages 66 and 67 of the "Manual of School Law, Nova Scotia, 1901," has been repealed and the following substituted in its stead:

36. Rural Science Schools and Gardens:—To qualify under section 69 of Chapter 52 of the Revised Statutes of 1900, the teacher of a school must have an Agricultural or Rural Science diploma as specified in the clauses following, and must notify the Inspector at the opening of the school each year of the classification to be competed for—"superior," "good" or "fair" of the Statute, which are the equivalent respectively of "A1," "A2," and "A3" of Regulation 34 preceding:

(1) "The graduation diploma from the School of Agriculture referred to in section 69 of Chapter 52 of the Revised Statutes of 1900, shall hereafter be known as the Rural Science diploma, under which title it shall hereafter be awarded by the Rural Science Vacation School at Truro, conducted under the auspices of the Normal and Agricultural Colleges. First Class teachers who complete the course as prescribed from time to time, and obtain the Rural Science diploma, shall be qualified to draw the grants for "Superior," "Good" and "Fair" as provided in the Statute above mentioned on the fulfilment of the regular conditions respectively specified. But Second Class teachers who complete the course and receive the diploma may on the recommendation

of the Inspector draw one-half of the regular grants for the classifications "Fair" and "Good" respectively on the fulfilment of the regular conditions."

(2) Any such licensed teacher intending to compete for classification as "fair," "good," or "superior," under section 69 of the Education Act, must give notice of this intention at the opening of the school to the Inspector, who has at the end of each half-year to rank the school; and the lack of such notice shall be a disqualification, even should all other conditions be complied with.

(3) For the lowest rank "fair" the school should have the equipment specified in Reg. 51, a and b, must have a school garden of not less than one-eighth of an acre, one-third of which should be set off in beds 4 x 10 feet with walks 3 feet wide, the rest to be set out as an arboretum and shrubbery, part set out each year till all is planted; and a library of not less than 15 volumes in addition to the prescribed books of reference. The school must be in all respects conducted as a first class school, with special excellence in Nature Study.

(4) For the rank "good" the school should, in addition, have the equipment specified in Reg. 51, c and d, with a library of not less than 25 volumes, a well conducted school garden of one-fourth of an acre, one-third of which must be in beds as above, the rest arboretum and shrubbery as above, and must be conducted in all respects as a first-class school with good demonstrations in Nature Study by the individual pupils and the school generally.

(5) For the rank "superior" the school should have, in addition to the requirements of the previous ranks, the equipment specified in Reg. 53, with a library of not less than forty volumes, a school garden containing three-eighths of an acre, one-third of which should be set out in beds as above, the remainder as arboretum and shrubbery as above, with a special class of pupils doing advanced work in Nature Study of such a character as to be clearly advancing the industrial methods of the community in at least some departments of agriculture, horticulture, forestry, etc.

(6) The "small" standard school garden should not be less than one-eighth of an acre (5444.5 square feet), one-half of which might be set out as an arboretum and shrubbery, the remainder being plowed each spring, then worked up by the pupils into beds of four feet by ten, separated by walks three feet broad. This arrangement would give one bed to each of thirty pupils. The younger pupils might be assigned in twos to each bed. The grounds should be kept prettily fenced and kept in good order. The even during holidays, when they should be visited by relays of



pupils at least once a week. Such a school garden might be recommended by the Inspector for ten, fifteen, twenty or twenty-five dollars per annum from the municipal fund, according to the excellence of the general condition of the school, provided the School Board spend at least as much on the plowing, fertilizing, etc., forming the annual current expense of maintaining the school in order, in addition to the labor of the pupils and teacher.

(7) The "medium" standard school garden should be about one-quarter of an acre on the average, one-half of which might be set out as an arboretum and shrubbery, and the remainder divided into fifty or sixty, four by ten feet beds, separated by three feet walks, to be conditioned on the same general principles as the "small" standard. This would be the size of the garden desired for the rank "good" where possible, drawing \$15, \$20, or \$25, according to excellence, from the municipal fund.

(8) The "large" standard school garden should be over a quarter of an acre, with at least three times the number of "four by ten feet" plots recommended for the "small" standard, say from 75 to 100 individual beds. This would be the size of garden desired for the rank "superior;" drawing under the same general principles \$20 to \$25 from the municipal fund.

(9) A small shed for the garden tools, with a projection, glass-roofed, facing the sun, to serve as a miniature hot-house for forcing plants in spring, is a necessary part of any standard garden, a very cheap structure sufficing, especially for the "small" garden. The size, number and management of plots specified above are merely given as general directions when teachers or school boards have no other scheme which they deem superior. Any other arrangements approximating these conditions, but demonstrating novel or special advantages, or improvements, are not only allowable, but will be specially commended after a successful test.

(10) If the teacher or the secretary of the school board recorded under oath the attendance of pupils during the holidays in weeding and observing the beds, such time might be arranged through the Inspector to be substituted equitably, according to agreement, for an equivalent number of holidays during the winter or stormy weather of the school year following or the "days attendance" added.

(11) Inspectors may have to consult with each other, and perhaps exchange visits to the schools of each inspectorate, in order to be sure that the same standards of classification are maintained in each inspectorial division. The same conditions hold with respect to the inspection of Manual Training and Superior

Schools generally. Notice of competition for school garden grants must be given to the Inspector at the opening of the school each year, and should be signed by the SECRETARY as well as the teacher.

(12) The course of study for the Rural Science diploma shall be as defined from year to year in the Rural Science School Course of Study.

### PROVINCIAL EXAMINATION OF HIGH SCHOOL STUDENTS.

82. "High School Students" shall be held to mean all who have passed the County Academy Entrance Examination and are studying the subjects of any high school grade, or who are certified by a licensed teacher as having fully completed the Common School course of study, and are engaged in the study of subjects beyond Grade VIII.

83. A terminal examination by the Provincial Board of Examiners shall be held at the end of each school year on subjects of the first, second, third and fourth years of the High School Program, to be known also as Grades IX, X, XI and XII respectively of the Public Schools.

84. The examinations shall be held during the first week of July, according to the time tables given in 98, for Grades XII, XI, X and IX, and the "Minimum Professional Qualification" of public school teachers, at each of the following stations viz:—  
 1, Advocate; 2, Amherst; 3, Annapolis; 4, Antigonish; 5, Arichat; 6, Baddeck; 7, Barrington; 8, Bear River; 9, Berwick; 10, Bridgetown; 11, Bridgewater; 12, Canso; 13, Chester; 14, Church Point; 15, Digby; 16, East River, St. Marys; 17, Glace Bay; 18, Great Village; 19, Guysboro; 20, Halifax; 21, Inverness; 22, Kentville; 23, Liverpool; 24, Lockeport; 25, Lunenburg; 26, Maitland; 27, Margaree Harbor; 28, Middle Musquodoboit; 29, Middleton; 30, New Glasgow; 31, North Sydney; 32, Oxford; 33, Parrsboro; 34, Pictou; 35, Port Greville; 36, Port Hawkesbury; 37, Port Hood; 38, River John; 39, Sheet Harbor, 40, Shelburne; 41, Sherbrooke; 42, Springhill; 43, Stellarton; 44, St. Peter's; 45, Sydney; 46, Tatamagouche; 47, Truro; 48, Upper Stewiacke; 49, Westport; 50, Westville; 51, Windsor; 52, Wolfville; 53, Yarmouth.

85. (a) Application for admission to the Provincial High School examination must be made on the prescribed form to the Inspector within whose division the examination station to be attended is situated, not later than the 24th day of May.

- (b) Candidates applying for the Grade IX examination, or for the next grade above the one already successfully passed by them, shall be admitted free. But a candidate who has not passed Grade IX must have his application for X accompanied by a fee of one dollar; if he has passed neither IX nor X the application for XI must be accompanied by two dollars; and if he has passed neither IX, X nor XI the application for XII must be accompanied by three dollars. The candidates who are entitled to free examination are only those who pass the different grade examinations in consecutive order.
- (c) For the Teachers' Minimum Professional Qualification Examination a fee of two dollars is required; but it should not be forwarded with the application, for it has been found more convenient to have it paid to the Deputy-Examiner on the Saturday when the candidate presents himself for examination. The Deputy-Examiner shall transmit the same to the Superintendent with his report.
- (d) The prescribed form of application, which can be obtained free from the Education Department through the Inspectors, shall contain a certificate which must be signed by a licensed teacher having at least the grade of scholarship applied for by the candidate whose legal name must be fully and plainly written out on the application form.
- (e) When a candidate presents himself for examination, and his name is not found on the official list as having made regular application in due time, the Deputy-Examiner may admit him to the examination provisionally on his written statement that application was regularly made in due time, which with a fee of one dollar, is to be transmitted with the Deputy's report to the Superintendent. If such candidate's statement is verified the dollar shall be returned. Providing there is sufficient accommodation, the Deputy-Examiner may admit any candidate on the payment of one dollar for any Grade in addition to the regular fees required under Reg. 85 (b).
- (f) The prescribed form of application is given in schedule B.
86. Each Inspector shall forward, to the Superintendent of Education, *not later than June 1st*, a list of the applications received for each grade of examination at each station within his division, on the prescribed form supplied from the Education Office. The said forms properly filled in, together with all fees duly credited shall be promptly forwarded to the Education Office.

87. The Deputy-Examiner, when authorized by the Superintendent of Education, shall have power to employ an assistant or assistants, who shall each receive two dollars per day for the time so employed.

88. The Superintendent of Education shall cause to be prepared and printed suitable examination questions for each examination in accordance with the regulations of the Council, and shall forward to each Deputy-Examiner a sufficient supply of the same together with copies of such rules and instructions as may be necessary for the due conduct of the examination.

89. The maximum value of each paper shall be 100; the questions being made as nearly as possible equal in value. Should the *values* of questions be unequal, they shall be stated near the margin of each question.

90. Each examiner shall mark distinctly by coloured pencil or ink at the left hand margin of each question on the candidate's paper its value, placing the sum of the marks on the back of the folded sheet. From this sum the number of misspelled or obscurely written words is to be deducted to show the net value of the paper; provided, however, that from one to three may be added by the Examiner for specially good writing.

91. The "High School Pass" on all grades shall be as defined under Reg. 154—the "High School Program"—from year to year.

92. The "Teachers' Pass" shall be as defined under Reg. 154—the "High School Program"—from year to year.

93. (a) Candidates failing to make a High School pass in the grade applied for shall be ranked as making a High School pass in the next grade below, provided an average of 40 per cent with no mark below 25 be made; and as making a pass on the grade second below, provided an average of 30 per cent. be made with no mark below 20.

(b) Candidates failing to make a Teachers' Pass in the grade applied for shall be ranked as making a Teachers' Pass in the next grade below, provided an average of 50 per cent. be made with no mark below 30; and as making a Teachers' Pass on the grade second below, provided an average of 40 per cent be made with no mark below 25.

(c) No appeal from the examination of a candidate's answer paper at the Provincial High School examination shall be entertained by the Superintendent unless it is accompanied by a fee of fifty cents for each paper to cover the minimum

expense, and not even then unless a responsible person vouches for the good standing of the appellant.

94. Each candidate, provided no irregularity has been reported, shall receive from the Superintendent of Education a certificate containing the examination record in each subject. If the candidate has made a "High School Pass," the certificate will bear the title "HIGH SCHOOL CERTIFICATE," and show the grade obtained under the arms of the Education Department; but candidates failing to pass shall receive an equally detailed statement of their examination record on the various subjects.

95. Candidates passing the various grades in consecutive order shall be admitted free to the regular Provincial High School Examinations, provided their application and procedure have been regular. In all other cases a scale of fees as given in 85 (b) and (e) has been fixed to cover the cost of examination and extra labor likely to be incurred.

96. The subjects, number and values of the papers for the different examinations, and the general scope of examination questions, are indicated generally by the texts named in the prescribed High School Program. Examination may demand description by drawing as well as by writing in all grades of High School and M.P.Q.

#### PROVINCIAL EXAMINATION RULES.

97. No envelopes shall be used to enclose papers. *Two* hours is the time allowed for writing each paper, except in the case of the M. P. Q. examinations, where the time allowed for each paper shall be one hour. The following rules must be exactly observed:—

(1) Candidates shall present themselves at the examination room punctually half an hour before the time set for the first paper of the grade for which they are to write, at which time the deputy examiner shall give each candidate a seat. The candidate's name shall be represented by a number, and must be therefore neither forgotten nor changed. Candidates who *present* themselves shall be numbered from 1 onwards in consecutive order (without hiatus for absent applicants, who cannot be admitted after the numbering), beginning with grade XII, then coming to XI, X and IX in order. Candidates for "Supplementary" examinations need not present themselves until the hour fixed for their papers in the regular timetable, provided they have sent in their applications and the titles of the papers on which they intend to write.

(2) Candidates shall be seated before the instant at which the examination is fixed to begin. No candidate late by the fraction of

a minute has a right to claim admission to the examination room, and any candidate leaving the room during the progress of any examination must first hand in his or her paper to the deputy examiner, and not return until the beginning of the next paper.

(3) Candidates shall provide themselves with pens, pencils, mathematical instruments, rulers, ink, blotting paper, and a supply of good, heavy foolscap paper of the size thirteen inches by eight.

(4) Candidates may write upon both sides of their paper. When more sheets than one are used they must be fastened together. Each sheet should bear the Candidate's grade and number. In order to secure high values from examiners neat writing and clear concise answers are much more important than extent of space covered or the number of words used.

(5) Each such paper must be *exactly* folded. First, by doubling, bottom to top of page, pressing the fold (paper now  $6\frac{1}{2}$  by 8 inches); next, by doubling again in the same direction, pressing the fold flat so as to give the size of  $3\frac{1}{4}$  by 8 inches.

(6) Finally the paper must be exactly indorsed as follows:— A neat line should be drawn across the end of the folded paper one-half an inch from its upper margin. Within this space,  $3\frac{1}{4}$  inches by  $\frac{1}{2}$  inch, there must be written in very distinct characters, 1st, the letter indicating the grade; 2nd, the candidate's number, and 3rd, a vacant parenthesis of at least one inch, within which the deputy examiner shall afterwards place the private symbol indicating the station. Immediately underneath this space and close to it should be neatly written the title or subject of the paper.

For example, candidate No. 18 writing for Grade XI on Algebra should endorse his paper as shown below:—

XI (	) 18	Algebra.
------	------	----------

(7) The subject, title, grade and candidate's number may be written within over the commencement of the paper also; but any sign or writing meant to indicate the candidate's name, station or personality may cause the rejection of the paper before it is even sent to the examiners.

(8) Any attempt to give or receive information, even should it be unsuccessful, the presence of books or notes on the person of a candidate, or within his reach during examination, will constitute a violation of the examination rules, and will justify the deputy examiner in rejecting the candidate's papers, and dismissing him from further attendance. No dishonest person is entitled to a provincial certificate or teacher's license. And where dishonesty at examination is proven, provincial certificates already obtained and licenses based on them will be cancelled.

(9) It is not necessary for candidates to copy papers on account of erasures or corrections made upon them. Neat corrections or cancelling of errors will allow a paper to stand as high in the estimation of the examiner as if half the time were lost in copying it. Answers or results without the written work necessary to find them will be assumed to be only guesses, and will be valued accordingly.

(10) Candidates are forbidden to ask questions of the deputy examiner with respect to typographical or other errors which may sometimes occur in examination questions. The examiner of the paper alone will be the judge of the candidate's ability as indicated by his treatment of the error. No candidate will suffer for a blunder not his own.

(11) Candidates desiring to speak with the deputy examiner will hold up the hand. Communication between *candidates* at examination even to the extent of passing a ruler or making signs, is a violation of the rules. Any such necessary communication can be held through the deputy examiner only.

(12) Candidates should remember that the deputy examiner cannot overlook a suspected violation of the rules of examination without violation of his oath of office. No consideration of personal friendship or pity can therefore be expected to shield the guilty or negligent.

(13) Candidates intending to apply for license upon a record made at this examination, should fill in a form of application for such license as is expected. The deputy examiner is provided with blank forms for those who do not already have them. The applicant should have his certificate of age and character correctly made

out and signed, and should fill in the number, station and year of any previous examination he has taken, whether he has been successful in obtaining a certificate thereon or not. He should also fill in his number, station, etc., and grade of certificate or rank of M. P. Q. expected. This latter should be placed in *brackets*, which will be understood to mean that it is not yet obtained but is *expected* to be obtained.

(14) All candidates will be required to fill in and sign the following certificate at the conclusion of the examination, to be sent in with the *last* paper:—

CERTIFICATE.

Examination Station . . . . . Date . . . . . July, 191. . .

Candidate's No. (        )

I truly and solemnly affirm that in the present examination I have not used or had in the Examination Room, any book, printed paper, portfolio, manuscript, or notes of any kind, bearing on any subject of examination; that I have neither given aid to, nor sought nor received aid from, any fellow-candidate; that I have not wilfully violated any of the rules, but have performed my work honestly and in good faith.

Name in full) |

(Without any contraction in any of its parts).

P. O. to which memo. or certificate is to be sent.

98 (a). TIME TABLE.

REGULAR PROVINCIAL HIGH SCHOOL EXAMINATION, JULY, 1910.

Day of Week	Grade.	Examinations 9 a. m., to 11 a. m.	Examinations 11 a. m., to 1 p. m.	Examinations 3 p. m., to 5 p. m.
Monday	XII. XI. X. IX.	German German German	Greek (a)	Chemistry



Tuesday	XII. XI. X. IX.	English (a) English English English	Greek (b) Greek Greek	French. French. French. French.
Wednesday	XII. XI. X. IX.	Geometry Geometry Geometry Drawing	Ancient History	Physics. General History. English History Geography.
Thursday	XII. XI. X. IX.	Algebra Algebra Algebra Algebra	Latin (a)	Botany. Physics. Chemistry. Science.
Friday	XII. XI. X. IX.	Latin (b). Latin. Latin. Latin.	English (b)	Trigonometry Pract. Math. Arithmetic Arithmetic

98 (b). TIME TABLE.

M. P. Q. EXAMINATION, JULY, 1908.

Saturday.

Time a. m.	Subject.	Time p. m.	Subject.
9.00 to 10.00	1. School Law and Forms.	2.00 to 3.00	4. School Management.
10.10 to 11.10	2. Theory and Practice.	3.10 to 4.10	5. History of Education.
11.20 to 12.20	3. Hygiene and Temperance.	4.20 to 5.20	6. Pedagogy.

99.

OPTIONAL EXAMINATION IN MUSIC, ETC.

(a) At the County Academy Entrance Examination and the Teacher's Minimum Professional Qualification Examination, candidates who have taken London Tonic Sol-Fa certificates can for the question in music *substitute* their certificates for which values will be given as follows:—For "Junior" certificate, 10; for "Elementary" certificate, 15; and for "Intermediate" certificate, 20—the last two for M' P. Q. only.

- (b) The candidate will enter in a parenthesis as an answer to the No. of the question on music in his examination paper, the words, "Junior Certificate," or "Elementary Certificate," or "Intermediate Certificate," as a reference to the fact that such a certificate has been handed to the deputy examiner, bearing on its back the name, and address, and examination number and station of the candidate plainly endorsed upon it.
- (c) The certificate will be received by the deputy examiner, compared with his list to verify the correctness of the endorsement by the candidates, then enclosed in one envelope addressed, in the case of the Academy Entrance, to the Principal, and in the case of the M. P. Q. to the Superintendent of Education, who, after perusal, shall return them to the respective candidates.
- (d) The Principal or the Superintendent, as the case may be, shall then endorse 10, 15, or 20 points (according to *a*) on the examiner's report on the candidate's paper below the general valuation number and add the two together for the total value of the paper.
- (e) To prevent the possibility of two values being given by accident, the examiner of a paper in which a certificate is substituted for the question, shall mark the general value of the paper with an asterisk, both on the paper and on his report.
- (f) No certificate from any local examiner of the London Tonic Sol-Fa College shall be accepted, unless the examiner has previously given a satisfactory proof to the Principal or Superintendent that he or she has been duly appointed as local examiner for the grade of certificate in question by the authorities of the said College.
- (g) At the County Academy Entrance Examination the certificate of Attendance for a year at a Mechanic Science school, or a Domestic Science school, can be accepted for the answer to a question on the subject in like manner as the "Junior" Tonic Sol-Fa certificate—value from 0 to 20, according to the character of the candidate's worth.

#### LICENSING OF TEACHERS.

100. No person can be a teacher in a public school entitled to draw public money without a License from the Council of Public Instruction. Before obtaining a license a candidate must obtain,

PHENOLOGICAL OBSERVATIONS — (Continued).

69. Shearing of Sheep.....		
70. Hay Cutting.....		
71. Grain Cutting.....		
72. Potato Digging.....		
(METEOROLOGICAL PHENOMENA.)		
73. Opening of (a) Rivers, (b) Lakes without currents.....	(a)	(b)
74. Last Snow (a) to whiten ground, (b) to fly in air.....		
75. Last Spring Frost (a) "hard" (b) "hoar".....		
76. Water in Streams, Rivers, &c., (a) highest, (b) lowest.....		
77. First Autumn Frosts, (a) "hoar" (b) "hard".....		
78. First Snow (a) to fly in air, (b) to whiten ground.....		
79. Closing of (a) Lakes without currents, (b) Rivers.....		
80. Number of Thunder Storms (with dates of each).....		
Jan.....	Feb.....	Mar.....
Apr.....	May.....	June.....
July.....	Aug.....	Sept.....
Oct.....	Nov.....	Dec.....

[Day of year corresponding to the last day of each month.]	Going North or coming in Spring.	Going South or leaving in Fall.
Jan. 31.		
Feb. 59.		
March 90.		
April 120.		
May 151.		
June 181.		
July 212.		
Aug. 243.		
Sept 273.		
Oct. 304.		
Nov. 334.		
Dec. 365.		

For LEAP years increase each number except that for January by 1.

(MIGRATION OF BIRDS, ETC.)		
91. Wild Duck migrating.....		
92. Wild Geese migrating.....		
93. Song Sparrow (Melospiza fasciata).....		
94. American Robin (Turdus migratorius).....		
95. Spotted coloured Snow Bird (Junco hiemalis).....		
96. Meadow Sand Piper (Actitis macularia).....		
97. Kingfisher (Ceryle Alcyon).....		
98. Summer Crowned Warbler (Dendroeca coronata).....		
99. White Throated Sparrow (Zonotrichia alba).....		
100. Humming Bird (Trochilus Colubris).....		
101. King Bird (Tyrannus Carolinensis).....		
102. Bobolink (Dolichonyx oryzivorus).....		
103. American Gold Finch (Spinus tristis).....		
104. Cedar Waxwing (Setophaga ruticilla).....		
105. Night Hawk (Chordeiles Virginianus).....		
106. Piping of Frogs.....		
107. Appearance of Snakes.....		

(OTHER OBSERVATIONS OR REMARKS.)

101. *Senecio Jacobaea* (St. James Ragwort); is it found within the school section?  
 If so, to what extent? etc.  
 102. The Brown Tail Moth, etc.

PHENOLOGICAL- OBSERVATIONS—(Continued).

[Day of year corresponding to the last day of each month.]

Jan. 31.	April 120.	July 212.	Oct. 304.
Feb. 59.	May 151.	Aug. 243.	Nov. 334.
March 90.	June 181.	Sept. 273.	Dec. 365.

[For LEAP years increase each number except that for January by 1.]

- |     |  |
|-----|--|
| 28. | Pigeon Berry ( <i>Cornus Canadensis</i> ), fruit ripe .....                                      |
| 29. | Star Flower ( <i>Trientalis Americana</i> ), flowering .....                                     |
| 30. | Clintonia ( <i>Clintonia borealis</i> ), flowering .....   |
| 31. | Marsh Calla ( <i>Calla palustris</i> ), flowering .....  |
| 32. | Lady's Slipper ( <i>Cypripedium acaule</i> ), flowering .....                                    |
| 33. | Blue-eyed Grass ( <i>Sisyrinchium ang.</i> ), flowering .....                                    |
| 34. | Twinflower ( <i>Linnaea borealis</i> ), " .....  |
| 35. | Pale Laurel ( <i>Kalmia glauca</i> ), flowering .....  |
| 36. | Lambkill ( <i>Kalmia angustifolia</i> ), " .....   |
| 37. | English Hawthorn ( <i>Crataegus oxyacantha</i> ), flowering .....                                |
| 38. | Scarlet fruited Thorn ( <i>Crataegus coccinea</i> ), " .....                                     |
| 39. | Blue Flag ( <i>Iris versicolor</i> ), flowering .....  |
| 40. | Ox-eye Daisy ( <i>Chrysanthemum Leucanthemum</i> ), flowering .....                              |
| 41. | Yellow Pond Lily ( <i>Nuphar advena</i> ), flowering .....                                       |
| 42. | Raspberry ( <i>Rubus strigosus</i> ), flowering .....  |
| 43. | " " " fruit ripe .....   |
| 44. | Yellow Rattle ( <i>Rhinanthus Crista-galli</i> ), flowering .....                                |
| 45. | High Blackberry ( <i>Rubus villosus</i> ), flowering .....                                       |
| 46. | " " " fruit ripe .....   |
| 47. | Pitcher Plant ( <i>Sarracenia purpurea</i> ), flowering .....                                    |
| 48. | Heal-All ( <i>Brunella vulgaris</i> ), " .....   |
| 49. | Common Wild Rose ( <i>Rosa lucida</i> ), " .....   |
| 50. | Fall Dandelion ( <i>Leontodon autumnale</i> ), " .....   |
| 51. | Butter-and-Eggs ( <i>Linaria vulgaris</i> ), " .....   |
| 52. | Expanding leaves in spring made trees appear green— (a) first tree, (b) leafing trees generally. |
- (CULTIVATED PLANTS, ETC.)
- |     |   |
|-----|---|
| 53. | Red Currant ( <i>Ribes rubrum</i> ), flowering .....      |
| 54. | " " " fruit ripe .....                                    |
| 55. | Black Currant ( <i>Ribes nigrum</i> ), flowering .....    |
| 56. | " " " fruit ripe .....                                    |
| 57. | Cherry ( <i>Prunus Cerasus</i> ), flowering .....         |
| 58. | " " " fruit ripe .....                                    |
| 59. | Plum ( <i>Prunus domestica</i> ) flowering .....          |
| 60. | Apple ( <i>Pyrus Malus</i> ), flowering .....             |
| 61. | Lilac ( <i>Syringa vulgaris</i> ), flowering .....        |
| 62. | White Clover ( <i>Trifolium repens</i> ), flowering ..... |
| 63. | Red Clover ( <i>Trifolium pratense</i> ), " .....         |
| 64. | Timothy ( <i>Phleum pratense</i> ), " .....               |
| 65. | Potato ( <i>Solanum tuberosum</i> ), " .....              |
- (FARMING OPERATIONS, ETC.)
- |     |                                  |
|-----|----------------------------------|
| 66. | Plowing begun .....              |
| 67. | Sowing " .....                   |
| 68. | Planting of Potatoes begun ..... |

When First Seen

When becomes very common

Rose  
 Hay  
 Grass  
 Potatoes  
 Open  
 Lent  
 Lent  
 Water  
 First  
 First  
 Close  
 Num  
 Jan.  
 July  
 [Day  
 Ja  
 Fe  
 M  
 Dec  
 LEAP  
 W  
 W  
 Bo  
 An  
 Sla  
 Sp  
 Me  
 Ki  
 Ye  
 Su  
 W  
 Hu  
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PHENOLOGICAL OBSERVATIONS, CANADA

(1909 SCHEDULE.)

(For the months July to December, 19 ; or the months January to June 19 .)

Province..... County..... District.....  
 Locality or School Section..... No.....

[The estimated length and breadth of the locality within which the following observations were made..... X..... miles. Estimated distance from the sea coast..... miles. Estimated altitude above the sea level..... feet.

Slope or general exposure of the region.....  
 General character of the soil and surface.....

Proportion of forest and its character..... and if so name the main river  
 Does the region include lowlands or intervales?..... Or is it all substantially highlands?  
 or stream.....  
 any other peculiarity tending to affect vegetation?.....

The most central Post Office of the locality or region.....

NAME AND ADDRESS OF THE TEACHER OR OTHER COMPILER OF THE OBSERVATIONS RESPONSIBLE FOR THEIR ACCURACY.

When First Seen.  
 When Becoming Common

(WILD PLANTS, ETC. — NOMENCLATURE as in "Spotton" or "Gray's Manual").

1. Alder (*Alnus incana*), catkins shedding pollen.....
2. Aspen (*Populus tremuloides*), ".....
3. Mayflower (*Epigaea repens*), flowering.....
4. Field Horsetail (*Equisetum arvense*), shedding spores.....
5. Blood-root (*Sanguinaria Canadensis*), flowering.....
6. White Violet (*Viola blanda*), flowering.....
7. Blue Violet (*Viola palmata, cucullata*), flowering.....
8. Hepatica (*H. triloba*, etc.), flowering.....
9. Red Maple (*Acer rubrum*), flower shedding pollen.....
10. Strawberry (*Fragaria Virginiana*), flowering.....
11. " " " fruit ripe.....
12. Dandelion (*Taraxacum officinale*), flowering.....
13. Adder's Tongue Lily (*Erythronium Am.*), flowering.....
14. Gold Thread (*Coptis trifolia*), flowering.....
15. Spring Beauty (*Claytonia Caroliniana*), flowering.....
16. Ground Ivy (*Nepeta Glechoma*), flowering.....
17. Indian Pear (*Amelanchier Canadensis*), flowering.....
18. " " " fruit ripe.....
19. Wild Red Cherry (*Prunus Pennsylvanica*), flowering.....
20. " " " fruit ripe.....
21. Blueberry (*Vaccinium Can. and Penn.*), flowering.....
22. " " " fruit ripe.....
23. Tall Buttercup (*Ranunculus acris*), flowering.....
24. Creeping Buttercup (*R. repens*) flowering.....
25. Painted Trillium (*T. erythrocarpum*), flowering.....
26. Rhodora (*Rhododendron Rhodora*), flowering.....
27. Pigeon Berry (*Cornus Canadensis*) florets opening.....

(To be handed promptly on its receipt by the Secretary of every School Board to each Teacher employed within the School Section.)

## LOCAL "NATURE" OBSERVATIONS.

(To be sent in to the Inspector with the Returns in February and July.)

This sheet is provided for the purpose of aiding teachers to interest their pupils in observing the times of the regular procession of natural phenomena each season. First, it may help the teacher in doing some of the "Nature" lesson work of the Course of Study secondly, it may aid in procuring valuable information for the locality and province. Two copies are provided for each teacher who wishes to conduct such observations, one to be preserved as the property of the section for reference from year to year; the other to be sent in with the Return to the Inspector, who will transmit it to the Superintendent for examination and compilation.

What is desired is to have recorded in these forms, the dates of the first leafing, flowering and fruiting of plants and trees; the first appearance in the locality of birds migrating north in spring or south in autumn, etc. While the objects specified here are given so as to enable comparison to be made between the different sections of the Province, it is very desirable that other local phenomena of a similar kind be recorded. Every locality has a flora, fauna, climate, etc., more or less distinctly its own; and the more common trees, shrubs, plants, crops, etc., are those which will be most valuable from a local point of view in comparing the characters of a series of seasons.

Teachers will find it one of the most convenient means for the stimulation of pupils in observing all natural phenomena when going to and from the school, and some pupils radiate as far as two miles from the school room. The "nature study" under these conditions would thus be mainly undertaken at the most convenient time without encroaching on school time; while on the other hand it will tend to break up the monotony of school travel, fill an idle and wearisome hour with interest, and be one of the most valuable forms of educational discipline. The eyes of a whole school daily passing over a whole school section will let very little escape notice, especially if the first observer of each annually recurring phenomenon receives credit as the first observer of it for the year. The observations will be accurate, as the facts must be demonstrated by the most undoubted evidence, such as the bringing of the specimens to the school when possible or necessary.

To all observers the following most important, most essential principles of recording are emphasized: Better *no date*, NO RECORD, than a WRONG ONE or a DOUBTFUL one. Sports out of season due to very local conditions not common to at least a small field, should not be recorded except parenthetically. The date to be recorded for the purposes of compilation with those of other localities should be the first of the many of its kind following immediately after, it. For instance, a butterfly emerging from its chrysalis in a sheltered cranberry semi-artificial, warm shelter, give the date required. When these sports out of season occur, they might also be recorded, but within a parenthesis to indicate the peculiarity of some of the conditions affecting their early appearance.

These schedules should be sent in to the Inspector with the school returns in July and February, containing the observations made during the Spring (January to June) and the Fall (June to December) respectively.

The new register has a page for a duplicate of such records.

Remember to fill in carefully and distinctly the date, locality, and other blanks at the head of the schedule on the next page; for if either the date or the locality or the name of the responsible compiler should be omitted the whole paper is worthless and cannot be bound up for preservation in the volume of The Phenological Observations.

By the aid of the table given at the top of pages 3 and 4, the date, such as the 24th of May for instance, can be readily and accurately converted into the annual date, "the 144th day of the year," by adding the day of the month given to the annual date of the last day of the preceding month (April in this case), thus:  $24 + 120 = 144$ . The annual date can be briefly recorded, and it is the only kind of dating which can be conveniently averaged for phenological studies. When the compiler is quite certain that he or she can make the conversion without error, the day of the year instead of the day of the month will be preferred in recording the dates.

first, a certificate of the prescribed GRADE of Scholarship; second, the prescribed certificate of professional RANK as a teacher, either from the Provincial M. P. Q. Examination (which must be supplemented for all classes higher than *third class*, by the prescribed certificate of ability to give effective physical training to pupils), or the Provincial Normal College; third, the prescribed certificate of age and character from a minister of religion or two Justices of the Peace; and fourth, A certificate of health from a regular physician proving freedom from active tuberculosis of lungs, offensively smelling catarrh, or other disqualifications. The value of a license is distinguished by the term CLASS; of scholarship by the term GRADE; of professional skill by the term RANK. Full information as to the licensing will be found in Regulations 101 to 114 inclusive, but the following collocation of the terms used will help to explain their significance and relation:—

Generally,

(1)

(2)

(3)

„Teacher's Pass Scholarship,"

Normal Diploma.

Age & Character.

Academic Head Master . . . . .	University Graduation . . . . .	Academic . . . . .	22 years,
Class A . . . . .	Grade XII . . . . .	Academic Rank . . . . .	20 years, etc.
Class B . . . . .	requires . . . . .	First Rank . . . . .	19 years, etc.
Class C . . . . .	Grade XI . . . . .	Second Rank . . . . .	18 years, etc.
Class D . . . . .	Grade X . . . . .	Third Rank . . . . .	17 years, etc.
Class D (Temp.) . . . . .	Grade IX . . . . .	(M. P. Q.) . . . . .	16 years, etc.
	Grade IX . . . . .		

The following are the exact requirements for the licensing of teachers:—

101. No diploma of the Provincial Normal College shall be awarded any candidate who is found defective (below 40%) in the scholarship of any of the subjects of the Provincial Program taken in the corresponding grade, until the Faculty is satisfied that creditable proficiency has been made in each subject.
102. When a candidate obtains a teacher's license without graduation from the Provincial Normal College, it can be only of a class one degree lower than the "teachers' pass" grade of scholarship.
103. Graduation from the Provincial Normal College will include the prescribed certificate for Physical Training. No permanent license higher than third class shall be awarded without this qualification after 1908.
104. No certificate, combination of certificates, nor any other qualification except the possession of a lawfully procured License gives a person authority to teach under the law in a public school. The regulations governing the issuance of licenses are as follows;—

105. The permanent Licenses of Public School teachers shall be under the SEAL of the Council of Public Instruction signed by the Secretary of the Council, shall be valid for the whole province during the good behaviour of the holder, and shall be granted on the fulfilment of the three conditions more fully specified in the succeeding regulations, namely: the presentation of the prescribed proof of (1) age and character, (2) scholarship, and (3) professional skill.

106. There shall be five classes of such licenses, which may be designated as follows:—

- Academic Class—Academic Headmaster.
- Class A—High School Master.
- Class B—First Class.
- Class C—Second Class.
- Class D—Third Class.

107. The certificate of professional qualification of skill shall be (a) the academic, first, second or third RANK classification by the Normal College, or (b) the *minimum* (which shall rank one degree lower than the *normal*), and shall be the academic, first, second or third rank pass on the following papers written on the Saturday of Provincial Examination week.

### MINIMUM PROFESSIONAL QUALIFICATION EXAMINATION.

The questions set for the minimum professional qualification examinations shall be on the following syllabus and may require free hand drawing in any question when desirable:—

#### 1. *School Law and Forms.*

- (a) The acts of the Legislature and Regulations of the Council of Public Instruction bearing on public education, with their latest amendments, and a knowledge of the way in which the law is to be administered.
- (b) The proper keeping of the School Register, the making out of neat and accurate school Returns, and a knowledge of all the ordinary forms required by school boards in administering the affairs of the section.

#### 2. *Theory and Practice of Teaching.*

As in Calkin's "Notes on Education," or any equivalent.



3. *Hygiene and Temperance.*

As in Lyster's "School Hygiene," (Univ. Tutorial Press), the education Act and Regulations, and the text books prescribed for the public schools.

4. *School Management.*

As in *Lectures on Teaching*, by Sir Joshua Fitch.

5. *History of Education,*

As in Monroe's "*Brief Course*" (MacMillan Co.)

6. *Pedagogy.*

As in Bagley's *The Educative Process.*

For *Third Rank M. P. Q.*—An aggregate of 150 on 1, 2 and 3, with no subject below 30 per cent.

For *Second Rank M. P. Q.*—An aggregate of 250 on 1, 2, 3, 4, and 5, with no subject below 40 per cent, and with the prescribed certificate of physical training.

For *First Rank M. P. Q.*—An aggregate of 300, on 1, 2, 3, 4, and 5, with no subject below 50 per cent, with the prescribed certificate of physical training.

For *Academic Rank M. P. Q.*—An aggregate of 360 on 1, 2, 3, 4, 5, and 6, with no subject below 50 per cent, with the prescribed certificate of physical training.

108. The Provincial Normal College at Truro is recognized as the appropriate source of certificates of professional qualification for public school teachers; but the certificates of other Normal or teachers' training schools whose *curricula* may be satisfactorily shown to the Council to be at least the equivalent of those of the Provincial Normal College, may be accepted when qualified by the addition of the three following conditions: (a) a pass certificate of the Provincial "minimum" professional qualification examination of the corresponding rank, (b) a certificate of a Public School Inspector, before whom or under whose supervision the candidate has demonstrated by the test of actual teaching for a sufficient period his or her qualifications for the class of license sought, (c) and the prescribed certificate for Physical Training.

In the case of candidates whose course of professional training had been completed before the grade of scholarship necessary for the

class of license afterwards applied for was obtained, no license shall be issued until after the lapse of a year from the date of the certificate of high school grade required for the said license.

109. The prescribed certificate of age and character is given in the following blank form of application for license, which will be supplied to candidates by the Education Department, through the Inspectors or the Principal of the Normal College:—

FORM OF APPLICATION FOR A TEACHER'S LICENSE.

To.....

Inspector of Schools, Division No.....Nova Scotia.

I hereby beg leave through you to make application to the Council of Public Instruction for a Teacher's License of Class..... and herewith I present evidence of compliance with the conditions prescribed, namely:—

I. The prescribed certificate of age and character hereto attached, which I affirm to be true.

II. My certificate of Scholarship..... obtained at..... Examination Station as No....., in the year 191.. (Further information below.)

III. My certificate of professional qualification of..... Rank No..... obtained at..... 191.... in the month of.....

IV. The prescribed certificate for Physical Training, obtained at..... from..... dated.....

V. The prescribed certificate of Health.

(Name in full).....

(Post Office address).....

Date.....

(County).....

CERTIFICATE OF AGE AND CHARACTER.

I, the undersigned, after due inquiry and a sufficient knowledge of the character of the above named candidate for a Teacher's License, do hereby certify:—

That I believe the said candidate..... (name in full), was born on the..... day of..... in the year.....; and is apparently in good health and physically fitted for effective teaching; and

That I believe the moral character of the said candidate is good, and such as to justify the Council of Public Instruction in assuming that the said candidate will be disposed as a teacher to "inculcate by precept and example a respect for religion and the principles of Christian morality, and the highest regard for truth, justice, love of country, loyalty, humanity, benevolence, sobriety, industry, frugality, chastity, temperance and all other virtues."

..... (Name and title.)  
..... (Church or Parish).  
..... (P. O. Address.)

Date.....

(When the certificate given above is signed by "two Justices of the Peace" instead of a "Minister of Religion," the word "I" should be changed by the pen into "we", and after the signature on the second line the words "Church or Parish" should be cancelled by a stroke of the pen.)

The correct *quotation* of the High School certificates in II, above will be considered as equivalent to its presentation. When the candidate makes application at the High School Examination Station, the *grade or rank* of certificate *written for and expected* may be entered, but shall be enclosed in a parenthesis, which will be understood to indicate the *expected* result of the Examination.

The correct *quotation* of the Provincial M. P. Q. Certificate or the Provincial Normal College Diploma in III and the Physical Training Certificate in IV above, will be considered as equivalent to its presentation.

Any certificate from Normal Schools, etc., which are not regularly recorded in the Education office, must *accompany* this application as evidence of the correctness of the statement.

FURTHER INFORMATION FROM APPLICANT.

1. Class of license already held.....No..... Year....

2. University Degrees, Scholarship, Professional Training, experience, or any other information candidate may wish to state.  
.....  
.....

3. Provincial High School Examinations taken in addition to that specified in II above, whether a "High School Pass" certificate was obtained or not (necessary to prove that the candidate made a "Teachers' Pass" in the lower grades.)

Recognized University Work at Examination Station.....	No.....	Year.....
On Grade XII.	"	"
" XI.	"	"
" X.	"	"
" IX.	"	"

GENERAL OR SPECIAL INDORSATION OR REMARKS BY INSPECTOR  
(OR PRINCIPAL OF NORMAL COLLEGE.)

.....  
 Inspector.

Place and Date.....

ACADEMIC HEADMASTER'S LICENSE.

[Regulations 110 (a), (b) and (c), as published on page 137 of the JOURNAL OF EDUCATION, April, 1908, are repealed and the following substituted.

110. (a). For an Academic Headmaster's License, the following are the requirements:—

1. A certificate of moral character signed by a Minister of Religion or two Justices of the Peace, as in the prescribed form, to the effect that the candidate is of the full age of twenty-two years, and presumably likely to perform the duties required by law.
2. A recognized degree from a recognized University (no degree or University shall be recognized unless the course is proven to be one of at least four years following a Provincial High School Pass of Grade XI., or a matriculation standard shown to be its virtual equivalent); and a pass\* on a testing post-graduate examination of University grade.
3. A certificate of Academic rank from the Provincial Normal College. (In the awarding of this certificate, the Faculty of the Provincial Normal College may accept at their true value the certificates of the Normal training schools,

\*Regulation 110 b showing the detailed syllabus of this post-graduate examination will be found following the High School Program on subsequent pages.

of the Education Faculties of Universities, and of Inspectors, in lieu of a portion of the minimum attendance prescribed by the Council, provided (i) the candidate has made an Academic pass on the M. P. Q. syllabus, (ii) has obtained the prescribed Physical Training Certificate, (iii) has taught successfully for at least two years, one of which must be as a full teacher in a department of high school grade, and (iv) has demonstrated satisfactory professional proficiency in the art of teaching before the Normal College Faculty by whom the candidate shall also be examined *viva voce*.)

110 (c). For a Class A. or High School Master's License (ranking as the equivalent of Class A<sub>3</sub> of the regulations of the Council in 1908) the following are the requirements: (1) A certificate of the full age of twenty years, and moral character as in the foregoing regulation. (2) A pass certificate of Grade XII. (3) A certificate of Academic rank professional qualification from the Provincial Normal College.

111. For a Class B or First Class License the following conditions are necessary: (1) A certificate of the full age of nineteen years, and moral character as in the foregoing regulation. (2) A teacher's pass certificate of Grade XI. (3) A teacher's certificate of first rank professional qualification from the Provincial Normal College; or a Teachers' Pass certificate of Grade XII, with a first rank M. P. Q., including the prescribed Physical Training certificate.

112. For a Class C or Second Class License the following conditions are necessary:—(1) A certificate of the full age of eighteen years and moral character as in the foregoing regulation. (2) A Teachers' Pass certificate of Grade X. (3) A certificate of second rank professional qualification from a Normal College; or a Teachers' Pass certificate of Grade XI, with second rank M. P. Q., and the prescribed Physical Training.

113. For a Third Class or D License the following conditions are necessary:—(1) A certificate of the full age of seventeen years and moral character as in the foregoing regulation. (2) A Teachers' Pass certificate of Grade IX. (3) A certificate of third rank professional qualification from a Normal College; or a "Teachers' Pass" certificate of Grade X with third rank M. P. Q.

#### TEMPORARY LICENSE.

114. (a) A Third Class (Temp.) or D (Temp.) License, *valid only for one year*, may be granted (but not previous to the 15th day of September in any school year) on regular application when the following *four* conditions are fulfilled:—(1) A certificate of the full

age of sixteen years and moral character as in the foregoing Regulation. (2) A pass certificate of at least Grade IX as in the foregoing Regulation. (3) The Third rank minimum professional qualification. (4) A recommendation of the candidate as a temporary teacher for a specified school by the Inspector who must previously be assured by the trustees of the said school that, although reasonable effort was made to employ a regular teacher of permanent class, one could not be obtained, and that the candidate would be acceptable to the school section as a teacher for the year. Such License can be re-issued for another year when the candidate has demonstrated an advance of *grade or rank* in his qualifications at a *subsequent* Provincial Examination.

(b) On the recommendation of the Normal College at Truro, the Council of Public Instruction may award Kindergarten Diplomas of *First* and *Second* Ranks to approved candidates who have respectively the scholarship qualifications of *First* and *Second* Class Teachers, and who have successfully taken a full year's course in the Truro Kindergarten affiliated with the Provincial Normal College; and that such Diplomas shall be taken by the Superintendent of Education as the equivalents respectively of *First* and *Second* Class Licenses in the distribution of the Provincial Aid to the teachers holding them.

(c) On the recommendation of the Superintendent of Education and the Principal of the Provincial Normal College, Normal trained teachers from any part of the British Empire may be awarded a provisional license for one year, of a class as high as the scholarship and professional training of the candidate may warrant. On the advance of the candidate's qualifications according to the Nova Scotia regulations, and the inspector's recommendation, the license may be continued for a subsequent year.

(d) Should arrangements be made for the exchange of teachers for one year from any portion of the Empire or from France or Germany, the council may on the recommendation of the superintendent and principal of the Normal College, award a provisional license of the same class to the foreign substitute.

#### PROVINCIAL EDUCATIONAL ASSOCIATION.

126. The Superintendent of Education shall have authority to assemble annually, if desirable, at the Normal College, or any other place which may be approved by two-thirds of the executive committee hereinafter provided for, a provincial educational association, whose object shall be to promote the efficient operation of the public school system, and the professional improvement of its members by the discussion and elucidation of educational problems.

127. The membership shall be:

(a) Representative members entitled to enrolment on the payment of one dollar at each annual convention; *Ex officio*, the Superintendent, the principal

and professors of the Normal College, the provincial examiners, the inspectors of schools, and the presidents of the universities within the province; *Elective*, one professor from each university chosen by the faculty, one teacher for every twenty in each inspectorial division chosen by the institute (or in the event of its failure by the inspector), one delegate chosen by any school board or group of school boards employing twenty teachers, or by any learned trade, or industrial society or organization of provincial scope.

(b) Ordinary Members consisting of persons interested in any way in public education are entitled to enrolment on the payment of one dollar at each annual convention.

128. The Superintendent, the principal of the Normal School, and ten other persons chosen at each annual convention by the ordinary members of the association, one of whom shall be from each inspectorial division, shall constitute the executive committee, which shall have control of all funds raised by the association, and shall appoint its own secretary-treasurer to receive and disburse those funds under its own direction. The executive committee shall have general management of the affairs of the association, especially in respect to the fixing of the times of meeting and the program of exercises, subject to the approval of the Superintendent of Education.

SPECIAL VACATIONS AND DAYS.

138. Teachers engaged for a full school year in any school section, who shall have taken a "mid-summer vacation" course of at least five full weeks (thirty days) at the Provincial Normal or Agricultural College, Truro, may be allowed an additional week, or for specially good reasons, two additional weeks, of vacation at the opening of the following school term (or other time if special reasons recommend it to the Inspector), on presentation to the Inspector not later than the end of the first half school year of a request for it by the school trustees, to which must be attached a certificate of satisfactory attendance and deportment from the acting principal of the summer school or the quotation of a physical training certificate obtained.

Other "mid-summer vacation" schools formally approved by the Education Department may be *similarly* recognized to the extent of one additional week, if the course was at least three weeks long.

139. It has been found very inspiring to devote certain days entirely to some special object the demonstrative effect of which can be made much more intensive than that of the same time broken up into a routine of short fragmentary lessons spread over a few weeks. Such occasions when managed properly, are of more value in teaching effect than the ordinary routine day. In fact, they can accomplish in some cases what could never be accomplished so effectively in any other way. They are by no means holidays. Far otherwise, for they involve extra labor on the part of the teacher, and generally also on the part of the pupil.

140. *Arbor Day*.—To call special attention to the importance of the proper management and cultivation of our forests, to the

value of the afforestation of lands which cannot be so productive in any other manner, and to the bearing of forestry on the rainfall, drainage, climatic and industrial condition of the province, to encourage the proper adornment of the school grounds, to cultivate a taste for the beautiful in nature, and to give some practical and objective lessons in tree planting, and the study of tree growth,—for such objects the following directions are given:

(a) On such day of May as according to season, weather or other circumstances may be deemed most suitable, trustees are authorized to have substituted for the regular school exercises of pupils, the planting by the latter of trees, shrubs and flowers, on the grounds surrounding the school house. The day devoted to this purpose shall be known and entered in the register as "Arbor Day," and when duly observed full credit will be given for it in the apportionment of public funds, on the basis of the actual attendance of pupils as ascertained by roll call at the beginning of the exercises or other convenient time during their progress. Additional value and interest should be imparted by mingling with the practical duties of the occasion short addresses from the teacher and other competent persons on the æsthetic and economic importance of arboriculture. During their summer visitation, inspectors shall take note of all schools in connection with which "Arbor Day" has been observed.

(b) Teachers who have been able to observe this day in a useful manner are recommended to make a special report on the same within a week to the inspector, specifying the work done on the occasion, and its prospective influence on the section. From these statements inspectors can have all the details necessary for their annual reports to the Superintendent of Education.

(c) There will be found subjoined some practical suggestions which will be serviceable to those who wish to make the occasion a really profitable one.

(1) In selecting trees, it is well to avoid those that bear flowers or bear edible fruits, as such in the flowering and fruiting seasons are apt to meet with injury from ignorant or mischievous passers-by, and to offer temptation to the pupils. Butternuts and horse chestnuts are not to be commended as shade trees. The balsam fir is objectionable from the liability of its balsam to stain the hands and clothing. Deciduous or broad leaved trees are easily grown, their fibrous roots rendering transplanting a comparatively simple operation. If care is taken, the young saplings of the elm, maple, and ash, as found in the undergrowth of the forest, can be transplanted without difficulty.

(2) \* No school grounds should be without a suitable number and variety of the standard deciduous trees. However, during the winter season these are bare and unattractive, and afford little or no shelter. On the other hand, evergreens, such as spruces, pines, hemlocks and cedars, retain their foliage and provide a shelter as useful in winter as it is grateful in summer. Trees should always be planted according to



definite plan, being arranged either in curves or in straight lines, according to circumstances and with an obvious relation to the building and fences. They should not be placed so near the school house as to interfere with the free play of light and air.

(3) Our native trees grow so freely in the woods that we are apt to suppose they are merely to be taken up by the roots and transplanted, to start at once into a vigorous growth as before. This is a mistake. Great care should be taken in digging up the trees to preserve the fibrous roots; long runners should be cut across with a sharp knife, and not torn. All trees thrive best in well-drained soil, varying from sandy loam to clay. A clay loam suits all descriptions. The holes for the trees should always be made before the trees are brought to the ground, and should be too large rather than too small. In filling in, the better soil from near the surface should be returned first, so as to be nearer the roots, but where the soil is at all sterile, and generally, there should be put below and round the roots some well-rotted compost, mixed with sand, and sandy loam, in order to promote the growth of the rootlets. In setting the tree it should be placed a little deeper than it stood before, and the roots should be so spread out that none are doubled. When finally planted the tree should be tied to a stout stick in such a way as to prevent chafing the bark. Some mulch or stable litter should then be thrown around the stem to prevent the roots from drought. Stirring the ground is preferred by some cultivators to mulching. In transplanting evergreens, the roots should not be exposed to air or light—especially the heat of the sun—more than can be helped.

Several varieties of shrubs planted together in clumps produce a very pleasing effect, while the care of judiciously arranged flower beds will be to the children an important means of education.

#### 141. *Empire Day.*

- (a) The establishment of this day followed a recommendation of the Dominion Educational Association at its third triennial convention which met in Halifax. The Council of Public Instruction of Nova Scotia adopted the recommendation immediately after, on the 18th of August, 1898, appointing as "Empire Day" the school day preceding the holiday commemorating the anniversary of the birthday of Queen Victoria, under whose reign the Empire so widely and harmoniously developed. This was the first institution of Empire Day by any Education Department.

**HISTORICAL NOTE.**—On the 2nd of December, 1897, Mrs. Clementina Fessenden of Hamilton, Ontario, addressed a committee of the local school board on the subject of a patriotic day. Subsequently this and other school boards adopted her suggestion that the Education Department of Ontario be asked to set apart one day each year as a patriotic day. The Hon. G. W. Ross, then Minister of Education, arranged, after correspondence with the Superintendent in Nova Scotia, then president of the Dominion Educational Association, that it should be proposed to the D. E. A. to recommend that a day should be fixed for the day before Victoria Day, the 24th of May, which is a statutory holiday in all Canadian schools, and that it should be called "Empire Day." The President in his opening address, on the 2nd of August, 1898, in the Academy of Music, Halifax, presented the proposal, and read the absent Hon. Minister's plea. The convention accordingly before its close, on the 5th August, recommended "Empire Day" to the several education departments of the Dominion. It was promptly adopted by that of Nova Scotia as indicated above, with the following instructions to the public schools.

- (b) The object of the day is the development of the Empire idea with power, by a more dramatic and impressive demonstration than would be possible in the routine method of teaching necessarily characteristic of the most of the work

of the school. No set method is prescribed. Local orators may be utilized in short and appropriate addresses to the pupils and their parents. Teachers and pupils should take part in as effective and in as varied manners as possible from year to year. As a rule it is preferable to have it an exercise open to the public of the locality in the afternoon, the forenoon being devoted to phases best treated in the school room. It is one of the days when the school flag should be flying. The British Red Ensign (having the Union Jack in its upper quarter) is recommended as the appropriate flag. The "Union" alone may be flown as a school flag, but it has also both a special naval and military significance.

- (c) The exercises should not be directed to develop boastfulness in the greatness of the Empire. They should be a study of the causes why it became great, and how it may continue to be great; of the history of the rise, growth and alliance of its different peoples, of the evolution of the elastic system of self-government, and of the development of that spirit of Empire unity which is a new thing in history as the Empire's extent is in geography. And most important of all the exercises should be an inspiration to stimulate all to seek how they may further reinforce the good tendencies and bind the distant members of the Empire more closely together in the bonds of reciprocal helpfulness as well as of sentimental love.
- (d) As in the case of Arbor Day, all worthy teachers are expected to file a report on the exercises of the day, no matter how brief, with the inspector of his or her division.

#### RURAL SCHOOL LIBRARIES OF NOVA SCOTIA.

Section 77 (e) of "The Education Act," Chapter 52, R. S., 1900, authorized the ratepayers to vote funds for "books for the school libraries" at any regularly called school meeting.

Prior to 1903 the Council of Public Instruction published (in the "Manual of School Law, 1901," and in the "JOURNAL OF EDUCATION," from year to year) the following regulations which still continue to remain in force:

172. In the Revised Statutes of 1900, Chapter 52, Section 77 (e), authority is given for the raising of funds for books for the school library by assessment. Until the Council has prepared and published a list of books for such libraries, trustees purchasing such books with school funds should first send a list of proposed books, their publishers, sizes and prices if possible, to the Secretary of the Council for its approval.

173. In some schools, among those fully graded, the prescribed Readers may be thoroughly mastered before the other portions of the course; so that additional reading may profitably be undertaken by the pupils. Such readings are known as "supplementary" and may be authorized by the Council for any section making application; but only on the conditions: (a) that the prescribed Readers have first been thoroughly mastered, and (b) that the "supplementary" Readers authorized be the property of the school section, so that no parent or pupil shall be required to purchase any such Reader.

Regulations 51, 52, 53, 69 and 70, referring to the equipment of "Superior" Schools, High Schools and County Academies, make the school library an essential part of the legal equipment of these public schools which Inspectors can have enforced by the withholding of public funds under the conditions specified.

Chapter 24 of the Statutes of 1903, is as follows:—

#### AN ACT FOR THE ENCOURAGEMENT OF RURAL SCHOOL LIBRARIES.

Be it enacted by the Governor, Council, and Assembly, as follows:

1. The Council of Public Instruction may pay annually out of the Provincial Treasury, to any teacher acting as the librarian of the school library of the school section, the sum of five or ten dollars, according as the equipment of the school, the value and use of the library, and the general management of the school and library, attain the standards prescribed by the regulations of the Council for the smaller or larger library grant respectively.

2. Nothing in this Act shall apply to the schools in any incorporated town, or in any school section employing a Class A teacher drawing a superior school grant, or a teacher drawing an Agricultural or Manual Training grant.

Under the authority of this Act the Council of Public Instruction has made the following:—

#### REGULATIONS FOR RURAL SCHOOL LIBRARIES.

(1)

##### THE GRANTS.

The Rural School Library grants, authorized by statute (quoted above) are intended to stimulate the formation and use of libraries in school sections other than those in which Class "A" Agricultural and Manual Training grants are drawn—which grants are already conditioned to some extent by the existence of appropriate libraries.

For the five dollar grant the books belonging to the library must be worth at least fifty dollars, and at least 150 issues of books must have been made during the year to readers.

For the ten dollar grant the books belonging to the library must be worth at least one hundred dollars, and at least 300 issues must have been made to readers during the year.

Regulations (2) to (9) will be found in the April *Journal* of 1909, or in the October *Journal* of 1903 where a provisional list of books approved is also published. A revision of this list may be published within another year, if there appears to be need of it

(10)

## HOW TO GET THE LIBRARY GRANT.

The teacher should give notice of the intention to compete for the larger or smaller Library grant when intimating the opening of the school to the inspector. Where no library has yet been organized, such intimation should be given as early as possible; but the equipment should be complete at the end of January, and the facts fully stated and certified on the blank half sheet of the semi-annual return of the school in February. An informal statement of the competition for the smaller or larger grant should be made by every teacher competing, as a notification to the Inspector. Without such notice endorsed on the semi-annual return no claim for the grant can be maintained.

The Library grants shall be paid with, and in addition to, the regular Provincial Aid at the end of the school year, provided the regulations and the instructions issued from time to time from the Education Department have been fully complied with, provided the special Library Return accurately made out has been sent to the Inspector with the regular annual returns of the school; and provided the Inspector whose special duty it shall be to examine and vouch for the correctness of the returns and the deserving character of each school library in his jurisdiction, endorses the Library, and other returns of the school with his approval and recommendation.

(11)

## PROVISIONAL CATALOGUE.

The catalogue of October, 1903, is merely provisional. It contains the titles of books suitable for pupils, parents, teachers and students. The Superintendent of Education will be glad to receive suggestions from teachers, students, publishers, etc. as to additional books to be put on the list as well as to the withdrawing of those superseded by better publication; so that a more complete and better classified catalogue may be issued.

No Supplementary Readers—class M—are at present recommended. Regulation 173 will cover any possible demand for them, as Regulation 172 will cover any demand for other books not on this catalogue.

Books recommended in the course of study, and to teachers in regulation 170 and in the JOURNAL OF EDUCATION specially, are also to be considered as authorized for school libraries.

## MARCH ANNUAL SCHOOL MEETING.

In some fishing districts it may be found desirable to take advantage of that provision of the law under which the Council of Public Instruction may fix for a given section an earlier date for its annual school meeting than the last Monday of June. If any such cases exist, it is very desirable that these early annual meetings be held on the same day. The first Monday in March is selected as likely to be the most generally convenient date.

Sections feeling the necessity of an early date for the annual school meeting should, through their trustees, make an application to the Council through their Inspector before the end of January, so that the Inspector may be able to transmit all such applications with recommendations or comments thereon, to the Council of Public Instruction on the first day of February, when it is probable action can be taken and due notice given in time for the holding of the meetings on the first Monday of March.

The suggestion, it is hoped, will enable cases of this kind to be arranged easily and without the delay otherwise necessary.

The following list of school sections includes those given in No. 42 of the Comments and Regulations of the Council of Public Instruction, "Manual of School Law Nova Scotia, 1901," pages 68 to 71, whose regular annual meetings were changed by the Council on the 11th September, 1903, from the last Monday in March to the first Monday in March of each year.

COMPLETE LIST OF SECTIONS.

whose regular annual meetings have been fixed by the C. P. I., to be held on the first Monday in March of each year.

INSPECTORIAL DIVISION, NO. I.

HALIFAX, WEST.

- No. 1.....Hubbard's Cove.
- No. 6.....Head Harbour.
- No. 9.....Glen Margaret.
- No. 11.....Indian Harbor.
- No. 13.....West Dover.
- No. 25.....Sambro.
- No. 28.....Ketch Harbor.
- No. 29.....Portuguese.
- No. 67.....Seaforth.
- No. 68.....West Chezzetcook.
- No. 69.....Grand Desert.
- No. 70.....Head Chezzetcook.
- No. 71.....Hope Ridge.
- No. 72.....Lr. E. Chezzetcook.
- No. 73.....West Petpeswick.
- No. 75.....Bayer's.
- No. 76.....East Petpeswick.
- No. 77.....Steven's.
- No. 78.....Bowser's.
- No. 79.....Pleasant Point.
- No. 80.....West Jeddore.
- No. 81.....Head Jeddore.

HALIFAX, EAST.

- No. 1.....Oyster Pd., Jeddore.
- No. 2.....Lr. East Jeddore.
- No. 3.....Upper Lakeville.
- No. 4.....Lower Lakeville.
- No. 5.....Clam Harbor.
- No. 6.....Owl's Head.
- No. 7.....South Ship Harbor.
- No. 9.....Newcombe's Brook.
- No. 11.....Murphy's Cove.
- No. 12.....Pleasant Harbor.
- No. 13.....Tangier.
- No. 16.....Gerrard's Island.
- No. 17.....Spry Harbor.
- No. 18.....Spry Bay (Henley).
- No. 19.....Spry Bay (Leslie).
- No. 29.....Beaver Harbor.
- No. 30.....Port Dufferin.
- No. 32.....Quoddy.
- No. 33.....Harrigan Cove.

INSPECTORIAL DIVISION, NO. 2.

LUNENBURG AND NEW DUBLIN.

- No. 3.....2nd Peninsula, Upp.
- No. 34.....Upper Centre.
- No. 4.....Garden Lots.
- No. 5.....Blue Rocks.
- No. 6.....Black Rocks.
- No. 7.....Heckman's Island.
- No. 8.....1st South.
- No. 9.....Middle South.
- No. 10.....Feltzen South.
- No. 11.....Upper Rose Bay.
- No. 12.....Lower Rose Bay.
- No. 13.....Upper Kingsburg.
- No. 14.....Lower Kingsburg.
- No. 15.....Ritcey's Cove.
- No. 16.....Lower LaHave.
- No. 17.....Park's Creek.
- No. 18.....Middle LaHave.
- No. 19.....St. Matthew's.
- No. 20.....Summerside.
- No. 21.....Snyder's.
- No. 22.....North West.
- No. 23.....Fauxbourg.
- No. 25.....Mader's Cove.
- No. 26.....Mahone Bay.
- No. 27.....Oakland.
- No. 28.....Indian Point.
- No. 29.....Martin's River.
- No. 57.....2nd Peninsula, Lr.
- No. 58.....Tancook.
- No. 60.....Clearland.

- No. 61.....Eastern Point.
- No. 62.....Big Lots.
- No. 65.....Conquerall Bank.
- No. 66.....Pleasantville.
- No. 67.....Fralig's.
- No. 68.....Pentz's.
- No. 69.....Getson's.
- No. 70.....West Dublin.
- No. 72.....New Cumberland.
- No. 73.....Mount Pleasant.
- No. 74.....Petite Riviere.
- No. 75.....Broad Cove.
- No. 76.....Cherry Hill.
- No. 77.....Vogler's Cove, W.
- No. 78.....Crousetown.
- No. 100.....East Dublin.
- No. 101.....Herman's Island.
- No. 103.....Corkum's Island.
- No. 105.....Vogler's Cove, E.

CHESTER.

- No. 2.....East Chester.
- No. 3.....Marriott's Cove.
- No. 15.....Gold River N.
- No. 15½.....Gold River S.
- No. 16.....Martin's Point.
- No. 17.....Indian Point.
- No. 18.....Blandford.
- No. 19.....Bayswater.
- No. 20.....Fox Point.
- No. 23.....North West Cove.

No.	24	.....	Mill Cove.
No.	28	.....	Pine Plain.
No.	29	.....	Deep Cove.

## SOUTH QUEENS.

No.	1	.....	St. Catherine River.
No.	2	.....	Port Joli.
No.	3	.....	Cent'l Port Mouton.
No.	4	.....	Port Mouton, N.

No.	5	.....	Hunt's Point.
No.	6	.....	Western Head.
No.	7	.....	Moose Harbor.
No.	11	.....	Beach Meadows.
No.	12	.....	Eagle Head.
No.	13	.....	West Berlin.
No.	15	.....	East Port <i>Medway</i> .
No.	18	.....	Gull Island.
No.	19	.....	White Point.

## INSPECTORIAL DIVISION, No. 3.

## SHELburne.

No.	3	.....	East Sable.
No.	5	.....	West Sable.
No.	6	.....	Louis Head.
No.	7	.....	Little Harbor.
No.	8	.....	Matthew's Point.
No.	9	.....	Rockland.
No.	11	.....	Osborne.
No.	15	.....	East Green Harbor.
No.	16	.....	West Green Harbor.
No.	19	.....	Upper West Jordan.
No.	20	.....	West Jordan Ferry.
No.	22	.....	Lower Sand Point.
No.	23	.....	Sand Point.
No.	30	.....	Port Saxon.
No.	32	.....	Black Point.
No.	33	.....	Roseway.
No.	35	.....	Churchover.
No.	36	.....	Birchtown.
No.	37	.....	McNutt's Island.

## BARRINGTON.

No.	3	.....	Port Clyde.
No.	4	.....	Cape Negro.
No.	6	.....	Cape Negro Island.
No.	16	.....	Bear Point.
No.	17	.....	Shag Harbor.

No.	19	.....	Up. Wood's Harbor.
No.	20	.....	Forbes Point.
No.	21	.....	Charlesville.

## ARGYLE.

No.	1	.....	Lower East Pubnico.
No.	2	.....	Mid. East Pubnico.
No.	3	.....	East Pubnico.
No.	5	.....	Up. West Pubnico.
No.	6	.....	Middle W. Pubnico.
No.	7	.....	Lr. W. Pubnico.
No.	8	.....	Argyle Sound.
No.	11	.....	Central Argyle.
No.	14	.....	West Glenwood.
No.	15	.....	Lower Eel Brook.
No.	16	.....	Eel Brook.
No.	17	.....	Abram's River.
No.	18	.....	Morris Island.
No.	19	.....	Surette's Island.
No.	20	.....	Sluice Point.
No.	21	.....	Amirault's Hill.
No.	22	.....	Hubbard's Point.
No.	25	.....	North Belleville.
No.	27	.....	South Belleville.
No.	28	.....	Bell Neck.
No.	30	.....	West Quinan.
No.	31	.....	East Quinan.

## INSPECTORIAL DIVISION, No. 4.

## DIGBY.

No.	14	.....	Port Gilbert.
No.	41	.....	East Ferry.
No.	42	.....	Tiverton.
No.	43	.....	Central Grove.

## CLARE.

No.	31	.....	Cape St. Mary.
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## ANNAPOLIS WEST.

No.	3	.....	Parker's Cove.
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## INSPECTORIAL DIVISION, No. 6.

## ANTIGONISH.

No.	32	.....	Harbor Bouchie.
No.	33	.....	E. Harbor Bouchie.
No.	70	.....	Auld's Cove.
No.	76	.....	Frankville.
No.	77	.....	Cape Jack.

## GUYSBORO.

No.	2	.....	Riverside.
No.	10	.....	Roachvale.
No.	13	.....	New Harbor, Upper.
No.	14	.....	Sandy Cove.
No.	15	.....	Halfway Cove.

No.	16	Queensport.
No.	17	Half Island Cove.
No.	18	Black Point.
No.	21	Up. White Head.
No.	22	Lr. White Head.
No.	25	Middle Melford.
No.	26	Sand Point.
No.	31	Port Shoreham.
No.	32	St. Francis Harbor.
No.	39	Steep Creek.
No.	40	Oyster Ponds.
No.	44	Lower New Harbor.
No.	47	Seal Harbor.
No.	51	Coddle's Harbor.
No.	53	Dover.
No.	55	Yankee Cove.
No.	58	Port Felix, E.
No.	59	Port Felix, W.
No.	60	Cole Harbor.
No.	61	Charlo's Cove.

No.	62	Larry's River, W.
No.	63	Larry's River, E.
No.	64	Gammon Point.
No.	65	Fisherman's Harbor.

ST. MARY'S.

No.	15	Ecum Secum.
No.	16	Marie Joseph.
No.	17	Liscomb Mills.
No.	18	Middle Liscomb.
No.	19	Lower Liscomb.
No.	20	Wine Harbor.
No.	21	Port Hilford.
No.	23	Sonora.
No.	27	Port Bickerton.
No.	28	Cheggoggin.
No.	29	West Liscomb.
No.	30	Spanish Ship Bay.

INSPECTORIAL DIVISION, No. 7.

RICHMOND.

No.	1	Acadiaville.
No.	2	Port Royal.
No.	3	Janvrin's Island.
No.	4	Arichat.
No.	5	Poulamond.
No.	6	Martinique.
No.	7	Lochside.
No.	8	D'Escousse.
No.	9	Poirierville.
No.	10	Cape La Ronde.
No.	11	Rocky Bay.
No.	12	Pondville.
No.	13	Petit de Grat.
No.	14	Petit de Grat, South.
No.	15	Orange.
No.	16	Cape Auguet.
No.	18	Grand Digue.
No.	19	Louisdale.
No.	20	Whiteside.
No.	21	Walkerville.
No.	22	Richmond Mines.
No.	23	Port Richmond.
No.	24	Port Malcolm.
No.	25	Sunnyside.
No.	27	Hureauville.
No.	32	Seaview.
No.	38	Cape George.
No.	39	Lakeside.
No.	41	River Bourgeois.
No.	42	Cannes.
No.	43	Lynch's River.

No.	44	Salmon River.
No.	45	Soldier's Cove.
No.	46	Macnab.
No.	47	Hay Cove.
No.	48	Red Islands.
No.	50	Peter's Mountain.
No.	52	West Loch Lomond.
No.	53	Aberdeen.
No.	55	Stirling.
No.	56	Cape Breton.
No.	57	Fourche.
No.	58	Framboise.
No.	59	Intervale.
No.	60	St. Esprit.
No.	61	Archeveque.
No.	62	Grand River.
No.	63	Grand Falls.
No.	64	Lewis Cove Road.
No.	65	Point Micheau.
No.	66	L'Ardoise Highlands.
No.	67	Brymer.
No.	68	L'Ardoise.
No.	69	West L'Ardoise.
No.	70	Rockdale.
No.	71	Grand Greve.

SOUTH INVERNESS.

No.	3	Troy.
No.	6	Albion.
No.	16	Dunmore.
No.	61	Rhodena.

INSPECTORIAL DIVISION, No. 8

NORTH INVERNESS.

No.	1	Pleasant Bay.
No.	9	Plateau.

No.	10	LeFort.
No.	11	LeBlanc.
No.	12	Ruisseau-du-lac.

## VICTORIA.

No.	18	Upper Washabuck.
No.	21	Gillis Point.
No.	25	Estmere.
No.	32	Indian Brook.
No.	37	South Ingonish.
No.	38	Clyburn Brook.

No.	39	West Ingonish.
No.	41	Neil's Harbor.
No.	42	North Harbor.
No.	43	Middle Ridge.
No.	44	Big Intervale.
No.	47	Sugar Loaf.
No.	49	Tarbot.

## INSPECTORIAL DIVISION, No. 11.

## CAPE BRETON.

No.	20	South Head.
No.	22	Milton.
No.	23	Round Island.
No.	25	Horn's Road.
No.	30	Caribou Marsh.
No.	32	Marion Bridge.
No.	39	Edwardsville.
No.	42	Ball's Creek.
No.	65	Catalone.
No.	66	Bateston.
No.	67	Clark's Road.
No.	68	Mainadieu.
No.	70	Baleinc.
No.	71	Little Lorraine.
No.	72	Big Lorraine.
No.	74	West Louisburg.

No.	77	Trout Brook.
No.	78	Big Ridge.
No.	79	French Road.
No.	80	Ocean View.
No.	81	Gabarus Bay.
No.	82	Gabarus.
No.	83	Gull Cove.
No.	84	Gabarus Lake.
No.	85	Belfry.
No.	86	Canoe Lake.
No.	87	Upper Grand Mira.
No.	88	Grand Mira.
No.	89	Victoria Bridge.
No.	90	Grand Mira, N.
No.	91	Caledonia.
No.	97	Big Pond.
No.	98	Irish Vale.



(To be handed promptly on its receipt by the Secretary of every School Board to each Teacher employed within the School Section.)

## LOCAL "NATURE" OBSERVATIONS.

(To be sent in to the Inspector with the Returns in February and July.)

This sheet is provided for the purpose of aiding teachers to interest their pupils in observing the times of the regular procession of natural phenomena each season. First, it may help the teacher in doing some of the "Nature" lesson work of the Course of Study secondly, it may aid in procuring valuable information for the locality and province. Two copies are provided for each teacher who wishes to conduct such observations, one to be preserved as the property of the section for reference from year to year; the other to be sent in with the Return to the Inspector, who will transmit it to the Superintendent for examination and compilation.

What is desired is to have recorded in these forms, the dates of the first leafing, flowering and fruiting of plants and trees; the first appearance in the locality of birds migrating north in spring or south in autumn, etc. While the objects specified here are given so as to enable comparison to be made between the different sections of the Province, it is very desirable that other local phenomena of a similar kind be recorded. Every locality has a *flora, fauna, climate*, etc., more or less distinctly its own; and the more common trees, shrubs, plants, crops, etc., are those which will be most valuable from a local point of view in comparing the characteristics of a series of seasons.

Teachers will find it one of the most convenient means for the stimulation of pupils in observing all natural phenomena when going to and from the school, and some pupils radiate as far as two miles from the school room. The "nature study" under these conditions would thus be mainly undertaken at the most convenient time, without encroaching on school time; while on the other hand it will tend to break up the monotony of school travel, fill an idle and wearisome hour with interest, and be one of the most valuable forms of educational discipline. The eyes of a whole school daily passing over a whole school section will let very little escape notice, especially if the first observer of each annually recurring phenomenon receives credit as the first observer of it for the year. The observations will be accurate, as the facts must be demonstrated by the most undoubted evidence, such as the bringing of the specimens to the school when possible or necessary.

To all observers the following most important, most essential principles of recording are emphasized: Better *no date, no record*, than a **WRONG ONE** or a **DOUBTFUL ONE**. Sports out of season due to very local conditions not common to at least a small field, should not be recorded except parenthetically. The date to be recorded for the purposes of compilation with those of other localities should be the *first* of the *many* of its kind following immediately after it. For instance, a butterfly emerging from its chrysalis in a sheltered cranny by a southern window in January would not be an indication of the general climate, but of the peculiarly heated nook in which the chrysalis was sheltered; nor would a flower in a semi-artificial, warm shelter, give the date required. When these sports out of season occur, they might also be recorded, but within a parenthesis to indicate the peculiarity of some of the conditions affecting their early appearance.

These schedules should be sent in to the Inspector with the school returns in July and February, containing the observations made during the Spring (January to June) and the Fall (June to December respectively.)

The new register has a page for a duplicate of such records. Remember to fill in carefully and distinctly the date, locality, and other blanks at the head of the schedule on the next page; for if either the date or the locality or the name of the responsible compiler should be omitted the whole paper is worthless and cannot be bound up for preservation in the volume of The Phenological Observations.

By the aid of the table given at the top of pages 3 and 4, the date, such as the 24th of May for instance, can be readily and accurately converted into the *annual date*, "the 144th day of the year," by adding the day of the month given to the annual date of the last day of the preceding month (April in this case), thus: 24 + 120 = 144. The annual date can be briefly recorded, and it is the only kind of dating which can be conveniently averaged for phenological studies. When the compiler is quite certain that he or she can make the conversion without error, the day of the year instead of the day of the month will be preferred in recording the dates.

PHENOLOGICAL OBSERVATIONS, CANADA.  
(1909 SCHEDULE.)

(For the months July to December, 19 ; or the months January to June 19 )  
Province.....County.....District.....  
Locality or School Section.....No

[The estimated length and breadth of the locality within which the following observations were made.....X.....miles. Estimated distance from the coast.....miles. Estimated altitude above the sea level.....feet.  
Slope or general exposure of the region.....  
General character of the soil and surface.....  
Proportion of forest and its character.....  
Does the region include lowlands or interales?.....and if so name the main river or stream.....Or is it all substantially highlands?  
Any other peculiarity tending to affect vegetation?.....

The most central Post Office of the locality or region.....

NAME AND ADDRESS OF THE TEACHER OR OTHER COMPILER OF THE OBSERVATIONS RESPONSIBLE FOR THEIR ACCURACY ..... .....	When First Seen	When Blooming Common
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(WILD PLANTS, ETC.—NOMENCLATURE as in "Spotton" or "Gray's Manual").

1. Alder (*Alnus incana*), catkins shedding pollen.....
2. Aspen (*Populus tremuloides*), ".....
3. Mayflower (*Epigaea repens*), flowering.....
4. Field Horsetail (*Equisetum arvense*), shedding spores.....
5. Blood-root (*Sanguinaria Canadensis*), flowering.....
6. White Violet (*Viola blanda*), flowering.....
7. Blue Violet (*Viola palmata, cucullata*), flowering.....
8. Hepatica (*H. triloba*, etc.), flowering.....
9. Red Maple (*Acer rubrum*), flower shedding pollen.....
10. Strawberry (*Fragaria Virginiana*), flowering.....
11. " " " fruit ripe.....
12. Dandelion (*Taraxacum officinale*), flowering.....
13. Adder's Tongue Lily (*Erythronium Am.*), flowering.....
14. Gold Thread (*Coptis trifolia*), flowering.....
15. Spring Beauty (*Claytonia Caroliniana*), flowering.....
16. Ground Ivy (*Nepeta Glechoma*), flowering.....
17. Indian Pear (*Amelanchier Canadensis*), flowering.....
18. " " " fruit ripe.....
19. Wild Red Cherry (*Prunus Pennsylvanica*), flowering.....
20. " " " fruit ripe.....
21. Blueberry (*Vaccinium Can. and Penn.*), flower ng.....
22. " " " fruit ripe.....
23. Tall Buttercup (*Ranunculus acris*), flowering.....
24. Creeping Buttercup (*R. repens*) flowering.....
25. Painted Trillium (*T. erythrocarpum*), flowering.....
26. Rhodora (*Rhododendron Rhodora*), flowering.....
27. Pigeon Berry (*Cornus Canadensis*) florets opening.....

PHENOLOGICAL OBSERVATIONS—(Continued).

]Day of year corresponding to the last day of each month.						When First Seen	When Becoming Common		
Jan.	31	April	120	July	212			Oct.	304
Feb.	59	May	151	Aug.	243			Nov.	334
March	90	June	181	Sept.	273	Dec.	365		
[For LEAP years increase each number except that for January by 1									
28.	Pigeon Berry ( <i>Cornus Canadensis</i> ), fruit ripe . . . . .								
29.	Star Flower ( <i>Tricentalis Americana</i> ), flowering . . . . .								
30.	Clintonia ( <i>Clintonia borealis</i> ), flowering . . . . .								
31.	Marsh Calla ( <i>Calla palustris</i> ), flowering . . . . .								
32.	Lady's Slipper ( <i>Cypripedium acule</i> ), flowering . . . . .								
33.	Blue-eyed Grass ( <i>Sisyrinchium ang.</i> ), flowering . . . . .								
34.	Twinflower ( <i>Linnæa borealis</i> ), . . . . .								
35.	Pale Laurel ( <i>Kalmia glauca</i> ), flowering . . . . .								
36.	Lambkill ( <i>Kalmia augustifolia</i> ), " . . . . .								
37.	English Hawthorn ( <i>Cratægus oxyacantha</i> ), flowering . . . . .								
38.	Scarlet fruited Thorn ( <i>Cratægus coccinea</i> ), " . . . . .								
39.	Blue Flag ( <i>Iris versicolor</i> ), flowering . . . . .								
40.	Ox-eye Daisy ( <i>Chrysanthemum Leucanthemum</i> ), flowering . . . . .								
41.	Yellow Pond Lily ( <i>Nuphar advena</i> ), flowering . . . . .								
42.	Raspberry ( <i>Rubus strigosus</i> ), flowering . . . . .								
43.	" " " fruit ripe . . . . .								
44.	Yellow Rattle ( <i>Rhinanthus Crista-galli</i> ), flowering . . . . .								
45.	High Blackberry ( <i>Rubus villosus</i> ), flowering . . . . .								
46.	" " " fruit ripe . . . . .								
47.	Pitcher Plant ( <i>Sarracenia purpurea</i> ), flowering . . . . .								
48.	Heal-All ( <i>Brunella vulgaris</i> ), " . . . . .								
49.	Common Wild Rose ( <i>Rosa lucida</i> ), " . . . . .								
50.	Fall Dandelion ( <i>Leontodon autumnale</i> ), " . . . . .								
51.	Butter-and-Eggs ( <i>Linaria vulgaris</i> ), " . . . . .								
52.	Expanding leaves in spring made trees appear green—(a) first tree, (b) leafing trees generally.								
(CULTIVATED PLANTS, ETC.)									
53.	Red Currant ( <i>Ribes rubrum</i> ), flowering . . . . .								
54.	" " fruit ripe . . . . .								
55.	Black Currant ( <i>Ribes nigrum</i> ), flowering . . . . .								
56.	" " fruit ripe . . . . .								
57.	Cherry ( <i>Prunus Cerasus</i> ), flowering . . . . .								
58.	" " fruit ripe . . . . .								
59.	Plum ( <i>Prunus domestica</i> ), flowering . . . . .								
60.	Apple ( <i>Pyrus Malus</i> ), flowering . . . . .								
61.	Lilac ( <i>Syringa vulgaris</i> ), flowering . . . . .								
62.	White Clover ( <i>Trifolium repens</i> ), flowering . . . . .								
63.	Red Clover ( <i>Trifolium pratense</i> ), " . . . . .								
64.	Timothy ( <i>Phleum pratense</i> ), " . . . . .								
65.	Potato ( <i>Solanum tuberosum</i> ), " . . . . .								
(FARMING OPERATIONS, ETC.)									
66.	Plowing begun . . . . .								
67.	Sowing " . . . . .								
68.	Planting of Potatoes begun . . . . .								

PHENOLOGICAL OBSERVATIONS—(Continued).

69. Shearing of Sheep .....		
70. Hay Cutting .....		
71. Grain Cutting .....		
72. Potato Digging .....		
(METEOROLOGICAL PHENOMENA.)		
73. Opening of (a) Rivers, (b) Lakes without currents .....	(a)	(b)
74. Last Snow (a) to whiten ground, (b) to fly in air .....		
75. Last Spring Frost (a) "hard" (b) "hoar" .....		
76. Water in Streams, Rivers, &c., (a) highest, (b) lowest .....		
77. First Autumn Frosts, (a) "hoar" (b) "hard" .....		
78. First Snow (a) to fly in air, (b) to whiten ground .....		
79. Closing of (a) Lakes without currents, (b) Rivers .....		
80. Number of Thunder Storms (with dates of each) .....		
Jan. ...., Feb. ...., Mar. ...., Apr. ...., May .....		
June .....		
July .....		
Aug. ...., Sept. ...., Oct. ...., Nov. ...., Dec. ....		

[Day of year corresponding to the last day of each month.]

Jan. 31.	April 120.	July 212.	Oct. 304.
Feb. 49.	May 151.	Aug. 243.	Nov. 334.
March 90.	June 181.	Sept. 273.	Dec. 365.

(For LEAP years increase each number except that for January by 1

Going North or coming in Spring.  
Going South or leaving in Fall.

(MIGRATION OF BIRDS, ETC.)

81. Wild Duck migrating .....		
82. Wild Geese migrating .....		
83. Song Sparrow ( <i>Melospiza fasciata</i> ) .....		
84. American Robin ( <i>Turdus migratorius</i> ) .....		
85. Slate coloured Snow Bird ( <i>Junco hiemalis</i> ) .....		
86. Spotted Sand Piper ( <i>Actitis macularia</i> ) .....		
87. Meadow Lark ( <i>Sturnella magna</i> ) .....		
88. Kingfisher ( <i>Ceryle Aleyon</i> ) .....		
89. Yellow Crowned Warbler ( <i>Dendroeca coronata</i> ) .....		
90. Summer Yellow Bird ( <i>Dendroeca aestiva</i> ) .....		
91. White Throated Sparrow ( <i>Zonotrichia alba</i> ) .....		
92. Humming Bird ( <i>Trochilus Colubris</i> ) .....		
93. King Bird ( <i>Tyrannus Carolinensis</i> ) .....		
94. Bobolink ( <i>Dolchonyx oryzivorous</i> ) .....		
95. American Gold Finch ( <i>Spinus tristuis</i> ) .....		
96. American Redstart ( <i>Steophaga ruticilla</i> ) .....		
97. Cedar Waxwing ( <i>Ampelis cedrorum</i> ) .....		
98. Night Hawk ( <i>Chordeiles Virginiansus</i> ) .....		
99. Piping of Frogs .....		
100. Appearance of Snakes .....		

(OTHER OBSERVATIONS OR REMARKS.)

- 101. *Senecio Jacobaeu* (St. James Ragwort); Is it found within the school sect on  
If so, to what extent? etc.
- 102. The Brown Tail Moth, etc.

REPORTS ON PHENOLOGICAL OBSERVATIONS.

(Year Ended June 30th, 1909.)

NOVA SCOTIA.

The following extracts from the reports of the specialists to whom the observation schedules sent in were referred for minute examination, study, compilation, criticism and suggestion, will be of interest to all teachers who took part in this work and to all who propose to continue in the future, as well as to others interested in the development of the practical study of the conditions and resources of our country. The study of these notes, it is hoped, may do much to prevent the introduction of errors into future work and to suggest improvement in both the schedules and the methods of observation.

The Province is divided into its main climatic slopes or regions not always coterminous with the boundaries of counties. Slopes, especially those to the coast, are sub-divided into belts, such as (a) the coast belt, (b) the low inland belt, and (c) the high inland belt, as below:—

No.	Regions or Slopes.	Belts.
I.	Yarmouth and Digby Counties	(a) Coast, (b) Low Inlands, (c) High Inlands.
II.	Shelburne, Queens & Lunen'g Co's	" " " " " "
III.	Annapolis and Kings Counties	(a) Coast, (b) North Mt., (c) Annapolis Valley (d) Cornwallis Valley, (e) South Mt.
IV.	Hants and Colchester Counties,	(a) Coast, (b) Low Inlands, (c) High Inlands.
V.	Halifax and Guysboro Counties,	" " " " " "
VI.A.	Cobequid Slope (to the south),	" " " " " "
VI.B.	Chignecto Slope (to the northw't),	" " " " " "
VII.	North'land Sts Slopes (to the N'h)	" " " " " "
VIII.	Richmond & Cape Breton Co's	" " " " " "
IX.	Bras d'Or Slope (to the southeast)	" " " " " "
X.	Inverness Slope (to Gulf, N. W.),	" " " " " "

These observations are especially valuable as furnishing a stimulus for a portion of the Nature Study work in the public schools of the Province. It is, no doubt, starting very many young pupils on the beginning of an observant course which will make them specially useful citizens; while it substitutes an enjoyable occupation for otherwise monotonous hours spent on the road to and from school. The work has also some scientific value, so that the schedules are bound up in annual volumes to be preserved in the archives of the Province for future students of our climate.

CRITICAL NOTES BY THE STAFF OF PHENOLOGISTS.

REGION I.—YARMOUTH AND DIGBY COUNTIES.

A. W. Horner, Principal, Seminary School, Yarmouth.

*Hepatica triloba* is reported from one section, but the dates given leave the impression that the observer was mistaken in the plant.

Miss Wetmore of Cedar Lake sent me a specimen of *Andromeda polifolia* and her schedule has some very interesting notes; e. g. "A flock of birds, about 100 in number, consisting of bobolinks, warblers, song sparrows and other varieties, was seen, Sept 9, when on my way to school. Every bush seemed alive with them. I never have seen a more splendid sight."

Bobolinks were very rarely seen in Yarmouth County previous to 1907, now they are nesting here.

A boy, eight years old, brought me a buttercup with the petal of a *Forget-me-not* growing on it. The most of the schedules show that the few teachers who are making the observations, are doing it very accurately.

Thirty three schedules were received from this region; fifteen from the Coast; thirteen from the Low Inland; and five from the High Inland.

The following are errors in the dates given.

Too Early.				Too Late.	
Schedule No. of Plant or Bird.	When First Seen	Schedule No. of Plant or Bird.	When First Seen	Schedule No. of Plant or Bird.	When First Seen
1	88	40	162	1	137, 142
4	106	86	100	6	147
6	112	87	116	16	178, 175
10	91, 113	89	106	23	168
19	110	90	113	88	168
20	120	92	112, 113	90	178
23	139	98	88	92	171, 173
28	138			94	198
35	125, 146			97	268
36	144, 158, 159				
38	162				
39	162				

REGION II.—SHELBURNE COUNTY.

E. Chesley Allen, The Academy, Yarmouth.

Twenty-one observation sheets were received from Shelburne County, comprising seventeen from the coast, two from low inlands, and two from high inlands.

The sheets contained a grand total of 1979 observations, of which 1473 were found to be accurate within reasonable limits, making a percentage of reasonable accuracy of nearly 75. This percentage of accuracy ranged, in individual sheets from 56 to 93, the latter being that of the schedule sent in from Middle Ohio, by Elizabeth F. Bower. Another sheet worthy of highest praise both for fullness and accuracy, was sent from Upper Ohio by Elinor A. Kavanagh.

Every teacher used the "day of year date", and apparent errors in transferring to this method were very rare.

Many dates for flowers becoming common are only from two to four days later than when reported as first seen. I would like to have some ideas as to what standard

of abundance should be considered as "common" for flowers, etc., though one can see many difficulties in the way of fixing such a standard.

One observer evidently gave dates when alder and maple flowers showed themselves without waiting for them to shed their pollen.

We are all weary of the *Rhodora* and *Kalmia* confusion, but that such confusion still exists is too evident.

Some observers are taking "gold thread" for "star flower".

*Sanguinaria Canadensis* was reported as first seen at Doctor's Cove, May 7, and common May 12. At present I am inclined to believe this to be another case of mistaken identity, but I should like to receive proof to the contrary.

I trust that the teacher who observed shearing of sheep early in March persuaded the owner to keep them housed.

Another observer had potatoes planted before ploughing begun, but had the courage to say that *Juncos* remained all winter.

On some sheets many dates were found for robins, juncos, and song sparrows that are too early for arrivals from the south. Doubtless winter residents were observed. Yellow-crowned, or myrtle warblers also frequently remain over winter feeding on the wax-coated bay-berries. Flickers, too, may occasionally be seen during the winter months. So that early dates for these birds, while they do not indicate the beginning of migration from the south, may not be errors in observation.

Ducks and geese are reported as going south or leaving in the fall near the last of December.

The common "black duck" (*Anas obscura*) and several other ducks are winter residents in Nova Scotia. I believe that in the southern part some geese remain over also.

This suggests what may be another source of error. I suspect that if birds are seen flying south, they are put down as migrating south. The chances are that this is true of geese in the fall, but small birds, since they migrate almost entirely by night, are seldom seen migrating, but may be heard almost any quiet night in the fall.

The only way to find the fall migration dates for birds, is to keep a record of the birds seen each day, the last date seen being the close of the migration for each species.

A meadow lark was reported from East Jordan. Meadow larks are very rare in Nova Scotia. One was taken at Comeau's Hill, Yarmouth County, in the fall of 1908.

The second column is still being filled in for snakes. Perhaps this is not altogether wrong as they do leave in the fall, if "leaving" may mean disappearing.

Large numbers of additional observations were given by Jennie A. Doane, Bessie Botherland, Kathryn Thorburn and Elinor A. Kavanagh.

## REGION II.—QUEENS COUNTY.

Miss M. C. Hewitt.—*Science Teacher, Academy, Lunenburg.*

This year only nineteen schedules were received from Queens County, six from the Coast and thirteen from High Inlands.

Most of the teachers are very careful and accurate observers. There are, however, some improvements which can be made by those who send in schedules which in other respects are excellent.

(1). Do not be too modest to give your name and address. None of the schedules from your county are such that any teacher need be ashamed of them.

(2). Give the name and number of the school section. Often it is very inconvenient for the compiler to ascertain these when omitted.

(3). In reporting additional observations, give the scientific name in preference to some local name, such as "Bird's Eye Primrose."

(4). Look for the White-throated Sparrow, the King Bird and the Gold Finch. These birds must be fairly common in your sections.

As the Summer School of Science will meet at Liverpool, this year, the teachers of Queens County will have an excellent opportunity to settle any doubts they may have in regard to the *flora* and *fauna* of their districts and, by meeting others interested in Nature Work, to add to their own zeal and interest, and thus make the work of observing an ever-increasing pleasure.

#### REGION II.—LUNENBURG COUNTY

*B. McKiltrick, B. A., Principal Lunenburg Academy.*

Forty-two "Local Nature" Observation sheets were received from the teachers of Lunenburg County. Of these fourteen were from Coast (a) and twenty-eight from High Inlands (c). Nine were received from Low Inlands (b).

The greater number of these schedules were very carefully and accurately made and neatly recorded. It is pleasing to note that each year one finds fewer errors and fuller reports. All now use the year day in reporting, except for thunderstorms. In future we hope to have every observation recorded in the year day.

The only plants not reported are;

5. Blood-root (*Sanguinaria Canadensis*).
6. Adder's Tongue Lily (*Erythronium Americanum*).

*Senecio Jacobaeae* has not yet been found in this County.

#### REGION III.—KINGS AND ANNAPOLIS COUNTIES.

*Ernest Robinson, B. A., Principal Horton Academy.*

The reports from this region were up to the average of previous year, and some were excellent. Two reports gave the day of the month, instead of the day of the year.

One observer gave *Rhodora*, first seen, 178. A number of such errors leads one to ask what the observer means by "first seen?" It certainly does not mean, when they first see it, unless they have been looking for it. What is meant when both columns are filled in with same date? Is this the same error? They probably mean that when they first see it, it is becoming common.

Errors:

"Spring Beauty" was reported from one place only, and that was wrong.

"Pigeon Berry", opening, 180. Fruit ripe 212.



"Star Flower" is usually reported too early. I doubt if it is the star flower that is seen.

"Lambkill" reported too early on a number of sheets.

One report was thirty days too late on all observations. This was due to miscalculation.

"Spring plowing" '82 would be unusual.

Suggestion: Be careful in filling in blanks at head of the report sheet. The answers are valuable to the compilers, often explaining inconsistencies.

Is Dalhousie only fifteen miles from the sea coast?

The compiler wishes to thank Miss Bertha Oxner of Kentville Academy for valuable assistance.

REGION IV.—HANTS AND COLCHESTER, SOUTH OF COBEQUID BAY.

*J. E. Barteaux, M. A., Principal Truro Academy.*

Nineteen schedules were received from this region. Two were rejected because dates were recorded in day of month instead of day of year. Another was rejected because all dates were about one month too early. Evidently the compiler made the mistake of taking the day of the year given in the table as the *first* day of the month instead of the *last*. The other sixteen schedules were neatly done, fairly full and pretty accurate.

Some few are still in error about the Lambkill as it was reported in bloom during the last days of May, whereas it is never found till a month later. These persons are evidently reporting Rhodora as Lambkill.

The report on the birds is hardly satisfactory, there being too great a difference in the dates "when first seen". Several are too early, while many others are much too late. Study, with close observation, will easily remedy these defects.

REGION V.—HALIFAX AND GUYSBORO COUNTIES.

*Geo. R. Bancroft, B. A., Science Master, Halifax Academy.*

Twenty-eight schedules for year ending July, 1909, were received from this region, which is sixteen less than the number of last year.

We are sorry to note the decrease, as it shows a lack of interest in nature-study among the teachers of this region.

(b). Nineteen of these schedules were compiled—nine from belt (a) and ten from belt (b). Some of these were very creditable indeed.

The best schedules were those received from the school districts of North Interval, Roachvale, New Town, Ecum Secum West, Smith's Cove, and Sibley's. These lists of observations were quite complete, neatly prepared, and had many additional observations.

Three observers used the day of the month instead of the day of the year, in recording their observations, and gave only the dates for "first seen." Two teachers report the absence of *Senecio Jacobaea*, while Miss Ferguson reports it as abundant in

North Interval, Guysboro County. In compiling many irregularities and errors were found, which have been pointed out so often in the JOURNAL, that it seems useless to enumerate these same errors from year to year.

I should be pleased to aid any beginners, who may find difficulty in the work of classification.

REGIONS VIA, VIB & VII. CUMBERLAND AND N. COLCHESTER COUNTIES.

F. G. Morehouse, Principal Public Schools, Springhill.

I beg to submit the following brief report upon the schedules for Colchester and Cumberland counties, which embrace Regions, VI A., VI B. and VII.

The total number of schedules received from this section was 76, region VIA., furnishing 37, VI B., 13 and VII. 26. The schedules were all fairly neat, and observations in most cases seem to have been carefully made, altho' some "old time" errors still exist. These must be made by teachers who have recently entered the profession, or by those who do not read the reports upon these schedules published in the JOURNAL OF EDUCATION each year. It is quite evident that some errors are made in changing from the day of the month to the year day. One observer gives *Cornus Canadensis* "fruit ripe" two days after flowers were "becoming common." An error of this kind can only be ascribed to such a mistake.

The farm and weather phenomena should receive more attention. No schedule gave a full list and a great many did not show even a partial one. The bird observations are very few, and of those that were recorded fully fifty per cent were incorrect.

Many teachers still need to be cautioned in regard to filling in the "when becoming common" column. It would appear that some teachers followed a mathematical formula rather than the results of careful observations.

The following notes may be of interest:—

- (a) *Alnus incana*, *Populus tremuloides* and *Equisetum arvense* were seldom correctly reported.
- (b) *Hepatica triloba* has one observation which has been recorded. This plant is not widely distributed in the province and the compiler is not sufficiently acquainted with the locality from which it was reported to know whether it actually occurs in the vicinity.
- (c) *Trillium Erythrocarpum* should receive many more observations. The fact that it is to be found in the woods should not prevent a record as it is a plant which will readily interest any pupil.
- (d) *Rhododendron Rhodora* and *Kalmia angustifolium* are still confused, but as already said, the teachers who make these blunders after all that has been written on this subject cannot be interested enough in this work to read the reports that appear from time to time. Teachers should look for No. 26 about "Victoria Day" and No. 36 about the last week in June.
- (e) *Cornus Canadensis* is fairly well reported, but from the early dates given in many cases it would appear that several teachers mistake the opening of the involucre for the actual flowering.
- (f) *Clintonia borealis* is a common plant in all our woods and should have many more observers. The same may be said of *Brunella vulgaris*, a plant to be found by most all roadsides.
- (g) Many of the records given for *Phleum pratense* are early. This probably arises from taking the heading out for blossoming.
- (h) Many of the weather observations have to be omitted. One observer has "First autumn frost" 180. Records of this nature are worthless.

REGION VII.—PICTOU AND ANTIGONISH COUNTIES.

W. P. Fraser, M. A., *Science Master, Pictou Academy.*

There were about the usual number of schedules from Pictou and Antigonish Counties, 44 in all. Six of these were from Antigonish County. There was a decided improvement in many of the schedules both in the number of observations and in the accuracy of the records. Some deserve special mention.

The schedule showing the largest number of observations came from Hopewell School, Miss Ada S. MacDonald, teacher. The regular schedule was nearly complete and about 200 additional observations were recorded. Moreover, the records indicated carefulness and accuracy of observation and a rare enthusiasm and interest in nature study. Another full and accurate schedule came from W. Br. River John, Miss Lola Maxwell, teacher, and one from Glencoe school, Miss Mary A. Thompson, teacher, though not so full showed unusual care and accuracy in making observations. Others deserving mention for accuracy of the dates given and neatness in entering them were,— Miss Jean V. Ballantyne, Pine Tree School; Miss W. Irene Thompson, Blanchard, and Miss Mary M. Cameron, Sutherland's River. The best schedule from Antigonish County was sent in by Miss Mary C. Macdonald, Hallowell Grant School. There were other schedules though accurately and carefully filled out, yet did not contain enough observations to rank them with these mentioned.

Several of the schedules showed the usual mistakes, some of which may be mentioned. The dates for the Field Horsetail and the Ground Ivy are in many cases too late. Observers should make sure of the correct species in the former as well as in the Rhodora, Lambkill and Pale Laurel. The latter species seems to be rare in this part of the County at least, the others are very common.

In the case of the Hawthorns it might be well for observers to record the one grown in hedges as the English Hawthorn. It may be recognized by its deeply 3-5-lobed leaves and its small dark-red fruit with one nutlet. The others, which usually have ovate, incised-serrate leaves and bright-red fruit with more than one nutlet, may be placed under the Scarlet Fruited Thorn (*Crataegus coccinea*). None of our hawthorns may belong to the latter, but the beginner need not expect to recognize the different species. The Scarlet Fruited Thorn usually blooms a week or two earlier than the English.

There should be more records of the Yellow Rattle. It is very common in fields, and is in bloom about Pictou before the close of the term.

Many of the dates of the bird migration are too late and have to be rejected, but such dates as 106 and 107 for the Night Hawk are about a month too early. A few report the Meadow Lark which is probably not found in these counties.

The dates of the thunderstorms should be entered as the day of the year rather than the day of the month.

REGIONS VIII, IX AND X.—CAPE BRETON ISLAND.

M. D. Davidson, B. A., *Principal Public Schools, North Sydney.*

75 schedules were sent in—48 from Cape Breton and Richmond and 27 from Inverness and Victoria. Many of these were prepared with care, notably, Bay St. Lawrence (with 259 observations), Sky Glen and French Road.

Three teachers failed to sign their names. Some used day of month instead of year day. Several filled in column for "first seen" but left "becoming common" blank.

Teachers should be careful to place all dates directly at end of dotted line.

Some errors noted:—

1—98 too early for Alder catkin shedding pollen.

2—102 too early for Aspen.

130, 136, 130 for 6, and 128, 130, 119, for 7, reported from Nyanza, Mabou and Gairloch are very obvious mistakes as the white violet flowers several days before the blue.

9. 118 too early for red maple flowers shedding pollen.

12. 160 late for dandelion.

14. 172 too late for gold thread and 119 too early.

16. 180 late for ground ivy.

29. 130 early for star flower, probably gold thread; the latter should be about 1st May, the former, 1st June. The plants are easily distinguished by the roots.

35. Seven observers called Rhodora, Pale Laurel.

36. In two cases 36 was reported 14 days before 35. Pale Laurel should be from 15 to 20 days before Lambkill.

50. 220 and 248 too late for Fall Dandelion.

63. 210 late for first seen.

85. Bay St. Lawrence gives 114 for first seen, while in extra observation late colored Junco is reported 98, which is correct date for 85.

90. 98 too early for summer yellow bird, probably mistake for yellow palm warbler.

98. 118 too early for night hawk. One observer reports it 14th Jan.

Blood root was reported from Big Ridge, Victoria Bridge, Grand Mira North and Murphy. Adder's tongue lily from St. Patrick's channel, Portage, French Road, Horne's Road. It is doubtful if either is found in Cape Breton Island.

Meadow Lark reported from St. Patrick's Channel.

Grand Mira North, Valley Mills and Horne's Road. It does not come to Cape Breton, as far as I can ascertain.

One observer omits 40 and reports common white daisy among extra observations. The common white daisy is "Ox-eye daisy."

Another omits 49, and reports "Rose flower" among extras.

Several teachers reported frogs and snakes going south a few days after their first appearance.

Another reports last snow whitening the ground 10 days after last snow flying in the air.



## Notice.

### CHANGE OF DATES FOR THE PHENOLOGICAL SCHEDULES.

It is proposed to have the schedules of observations henceforward sent in twice a year (with the semi-annual returns). This arrangement will enable the Education Department more easily to compile the information in periods of the Calendar year, so as to be more readily comparable with phenological observations in other countries, and with the voluminous meteorological statistics collected, compiled and published by the Dominion.

The schedule sent in at the end of the first half of the school year is intended to cover the time from the 1st of July to the end of December—thus completing the Calendar year.

The schedule sent in at the end of the school year is intended to cover the observations from the 1st of January to the end of June.

Where the same teacher is employed in the section during the *whole* calendar year, the schedule sent in during the first week of February, is recommended to cover the whole calendar year, from the 1st of January to the 31st of December. Such a schedule will be complete in itself for the whole calendar year, and the fact of its repeating the contents of the June schedule will be no inconvenience to the compilers, while it will reflect favorably on the teacher.

This course may be followed by a teacher new to the section, provided the previous teacher left the record on file or in the register. Whenever the observations for the *Calendar* year can be given complete, there is an advantage in giving it in the schedule sent in with the February returns.

PROPOSED COURSE OF STUDY FOR THE COMMON SCHOOLS AS SUBMITTED  
TO THE P. E. A. 1908 AND AMENDED.

[For further discussion and amendment at the meeting of the Provincial Educational Association, 1910.]

The Committee appointed by the Provincial Educational Association "to act with the Superintendent of Education in defining and determining the amounts of the subjects of the newly adopted High School program, in revising the Common School Course, and in effecting the best articulation between the two," beg to report as follows:

Your Committee held its first meeting during the Christmas vacation of 1906-07.

After a somewhat extended discussion of the general features of the existing course of study, sub-committees were appointed each to prepare a course of study in a specified department of the school program. These reports it was hoped to have in the hands of the general committee for consideration at New Year, 1908. Failing this, the general committee was obliged to postpone its second meeting until shortly before the present meeting of the Provincial Educational Association. A resolution, empowering the various sub-committees to add to their personnel representative teachers of the public schools, has throughout been acted upon, and the hereto attached sub-committee reports are presented as the findings of sub-committees considerably enlarged in pursuance of this resolution. It is in place here to mention that your Committee has experienced no little embarrassment through the circumstance of members residing far apart and being unable to confer, except by mail, and through a general reluctance on its part to commit the Education Department to any considerable expense in printing an exhaustive report and fully detailed courses of study which would probably not prove final and definite without much alteration.

After a careful survey of existing conditions in our public schools and a critical review of the present common school program, your Committee has to report that, in its opinion, the present program is, on the whole, well balanced, correct in educational principles and judicious in detail. The general prescriptions are founded upon an acceptable educational philosophy; they set forth distinctively and clearly educational aims universally admitted to be true; and they briefly but skilfully suggest the pedagogic procedure appropriate to a great variety of school activities. The special prescriptions for the various grades are also admirable, the whole standing as a monument to the intelligence of our educational administration, not merely illustrating a close touch with the educational progress of the world, but revealing from time to time a prophetic insight into movements hitherto discernible only to the seers of education. As instances of educational foresight we would point to the treatment in our common-school program of manual-training, household science, nature-study, and physical training.

Had we but a corps of teachers trained to interpret and to administer the existing program, little would, indeed, be wanting to progressive public education. Let it be distinctly understood, however, and constantly borne in mind that we have no such *corps d'élite* except for a limited proportion of the fifty per cent. of our teachers trained at the Normal College and a limited proportion of the remainder blest with good pedagogical antecedents and special aptitudes. This condition admitted, it would appear that some particular consideration is due those large numbers of our teachers who either from youth and inexperience, or from want of training and of special aptitudes, or from lack of extensive knowledge, of sense of educational values, and of selective judgment, are incapable of interpreting and of utilizing except meagerly the close-packed prescriptions for the various courses of study in the eight grades.

In short, your Committee would state with all possible emphasis that the ultimate revision of the existing program of studies must consist, in the main of a fuller—indeed, of a very full—detailing of the content of each of the subjects and an indicated treatment of those details calculated to reveal their educational and economic values and the appropriate pedagogic method. Everywhere throughout the English speaking world, educational administrators and framers of courses of study have until lately overlooked the necessity of providing the teacher with programs such as here described. They have proceeded, as it were, on the faith that the average teacher is little short of a creative and executive genius, and that, by leaving as much as possible in the program of studies to the judgment of the individual, there would result a stimulation of initiative which would diffuse itself beneficially among the entire body of teachers. The time has now fully come for us to protest that we teachers have been overestimated. We are, in fact, beginning to chafe under the irony of circumstances which leave so very much to our individual judgment. The responsibility is greater than we care to assume. Surely, there is some one else's judgment to which we may authoritatively refer when our own fails us.

And so it is that time and experience have not borne out the faith in which the customarily brief and pregnant courses of study were framed. On every hand, we find the conviction that the lack of a fully interpreted and detailed program of studies throws upon the common-school teacher an intolerable burden. Even the aptest and the best-trained teachers faint under the effort of daily forecasting and working out fresh lessons in half a dozen subjects, lessons expected to be consecutive in subject-matter and progressive in treatment. In the rural miscellaneous school the teacher's burden is at a maximum, declining as we pass through the schools of two and three teachers until the fully staffed departments of town schools are reached. And it is the rural school teacher, so often untrained, inexperienced, and ill-schooled that can least stand a double allotment of work.

A further elaboration of the evils attendant upon courses of study sketched merely in outline is perhaps unnecessary here and may best be left to subsequent discussion if this be invited. Should a parallel be desired to the enormous labor in which it involves the conscientious teacher, let our readers imagine the high-school teacher called upon to work out his plan of daily lessons in language, mathematics, the sciences, and literature, unaided by the customary text-books which ensure to him consecutiveness of treatment and daily allotments of work.

Before proceeding to illustrate in the concrete the courses of study as we would detail them, let us here anticipate an objection which may possibly be urged against our recommendation. It may be thought that an exhaustive prescription would result in mechanizing instruction. In reply we would urge that the more exhaustive the prescription the clearer will stand revealed both the educational aims and the methods of instruction. Even the feebler teachers will derive confidence and effectiveness by following a course of study which ensures correctness in subject matter, consecutiveness with its accompanying economy of resources both of pupil and of teacher, and certainty of aim. Mechanization of the function of the teacher will follow rather from vagueness than from definiteness of prescription; for the untrained and the poorly schooled teacher, timid, wavering, and fearful of doing wrong, speedily reduces instruction in every branch to a minimum of content and to a routine of imparting formal facilities. Beyond the three R's, she is capable of little; and even these R's in their acquisition are mindless tasks of whose application to the affairs of life intellectual and economic she has little knowledge and less experience.

To those who may fancy that, in prescribing courses of study, the ideal condition is arrived at where the prescriptions are made by reference to pages of certain text books, we would respectfully submit that, except for those teachers whom intelligent experience has released from continual dependence upon the printed syllabus, text-book prescriptions are dangerous; and this observation we would extend to high schools as well as to the common school. Prescription of the content of instruction should be made in terms absolute and not relative to books. To prescribe from books alone is to tempt the idle teacher into substituting for instruction more or less mindless tasks of memorizing. The teacher who lacks initiative and the ability easily to organize the information contained in the text finds the mere text-book prescription a partial justification for dull treatment and the traditional question and answer methods. The study of phenomena is supplanted by the study of books. The intelligence of the pupil is stifled by shutting out from him original sources of knowledge and leaving

him ignorant and unpractised in the art of acquiring knowledge except at second-hand, a condition of things still deplorably common in our schools and one toward the correction of which the framer of courses of study should bend all his energies. For, while your Committee would, in no sense, be held to underrate the ability to procure knowledge through reading, or to advocate the dispensing with text-books, it claims that the highest efficiency, intellectual and economic, will never be approached in schools which fail to recognize the superior value of the ability to gather knowledge and experience at first-hand. We live in a world of great opportunities, in a new land, and amid economic and social resources comparatively unexploited and unexplored. Our economic progress and the vitality of our civilization depend largely upon the capacity of our people to recognize *phenomena* and to deal with actual conditions and concrete realities. The methods of childhood and of school days should be fashioned in view of the necessities, the opportunities, and the conditions which the child will meet with in manhood and womanhood years; and these methods will be sufficiently complied with where the necessities, opportunities, and conditions amid which the child now lives and moves are made the chief medium of instruction and the chief means of education. Accepting this principle in education, the text-book falls into its proper and useful place in the well-conducted school as labor-saver and partial guide to the teacher, as home-companion and mentor to the pupil. Often, too, it must remain the one and only source of information to both teacher and pupil.

A word may be spoken here to allay the fears of those who suppose that in detailing at great length the various courses of study and indicating both aim and treatment, we should be removing the opportunity for initiative in the selection of topics and illustrations, or in the choice of methods of approach and of treatment.

So far as topics and illustrations of principles are concerned we protest that these are of infinite number and variety. Each field of knowledge as represented in each of the subjects of the common school is boundless; and the teacher who is original enough and ambitious enough to desire to improve upon or to modify the selection of topics and illustrations offered in any or all of the courses of study may safely be trusted to do so. Indeed, such an one is the sort of experimenter that is desired—the sort through whom the gradual perfection of tentative courses of study will be accomplished.

As to limiting the teacher in methods of treatment, that is not the result we look for in associating with the content of instruction suggestions as to its uses and its means toward the achievement of educational ends. Far from it. We would remind our objector, however, that presumably, the teachers who are to administer the program of studies and the authorities who framed it are of one mind on educational aims and values and in harmony upon matters of general method, and that, therefore, no great hardship would be felt if, in respect to aims and general method, the program and courses were coercive. As to particular methods, these, like illustrations of principles, should remain a field for the individual experimenter, whose study and research will afford perennially welcome contributions to the Education Department and to pedagogic progress.

A word to those who fear that the present program and courses are overloaded. How does it come to pass, may we ask, that teachers of equal opportunity but of differing aptitude disagree upon this matter? The question has been threshed out at divers times and in sundry places, and some years ago the attention of the educational world was seriously directed toward inquiry into the merits of the complaint. Everywhere candid inquiry arrived at virtually the same conclusion, namely, that overloading of programs and overpressure do exist but that these are essentially due not to the presence of too many subjects in the common-school program but to the deficient interpretation of the purpose of the various subjects of the program and to vaguely and imperfectly defined courses of study. Common-school as well as high-school courses were defined sometimes simply by naming the subjects, sometimes in a mere sentence or two, and frequently by indicating pages in specified text-books, the sketching-in of the detail in proper perspective being left to the teacher or to the principal. In many cases, the principal, whose profession was that of a high-school specialist, was less capable of interpreting and detailing than were his subordinates in the common-school grades.

It resulted, among other evils, that the school program became ill-balanced, courses of study for which the grade teacher or his superior had a preference being unduly developed to the neglect of equally important subjects, nay, even of the three



R's. Very often, as is still the case in many of our own schools, worthless topics found their way into the various courses, or unimportant ones were set forth in detail while essentials received scant treatment. The arithmetic of such schools was likely to abound in problems of alligation, of grindstone partnerships, or curious puzzles, while little provision was made for practising pupils in common and useful calculation. Abstruse problems of grammar and analysis and formulas of parsing usurped the place belonging to the correction of common errors and the enlargement of the pupil's powers of expression. Geography was as likely to deal largely in inapposite problems of astronomy or lists of unimportant capes, bays and counties in strange lands as to deal in the observation of the phenomena exhibited in our immediate surroundings and the interpretation of the earth in its relations with man as an industrial and social factor.

Even worse, perhaps, was the failure to adapt the exercises of pupils to the varying interests and developing capacities of succeeding grades and ages. Since the same subjects were, in a general way, prescribed for grades three, four, five and six, it often followed that the same topics, sub-topics and illustrations were repeated throughout these grades with virtually the same treatment, until the substance and form of the instruction became a sing-song in the pupil's ears and came trippingly from his tongue. When this happy end was compassed, it was fondly believed that the pupil had achieved something worth while. Ill organized as was such a condition of affairs, an even more chaotic state was reached, where, as in country schools, none except the vaguest record of the former teacher's work remained to guide the incoming teacher in his treatment of the various courses in the different grades.

Lest it may be presumed that in the upper grades of the common school, where text-books are used in various subjects of instruction, the teaching must of necessity be well graded, we now proceed to affirm the unwarrantableness of such a conclusion. In the first place, text books are not used in nearly all of the subjects. A reading-book filled with choice selections of literature is not a text-book in reading; it does not in the remotest way touch upon the pedagogic principles or the art of reading. The same may be said of a writing-book.

To particularize further, there is no text-book prescribed to indicate to the teacher the scope and treatment of the history set down for grades five and six; no geography text for grades four and five; no nature-study text for any of the grades. True, the earnest and intelligent teacher has accepted the recommendations of the JOURNAL OF EDUCATION and found light and leading in the reference books from time to time brought to her notice. But what of the less earnest and less intelligent? Having no book forced upon them, they have sought none, and they have perestered children with committing to memory facts within the range neither of their interests nor of their understanding.

In the second place let us point out that the orthodox text-book in geography, grammar, history, natural science, or in mathematics is no safeguard of methodical, well-graded instruction. Though consecutive and logical in its treatment of a subject, it does not aim at being a treatise on method. It must, in order to sell well, be cheap. To sell cheaply, it must be brief. To be brief, it has to depend for emphasis chiefly upon the mechanical devices of the printer. It can afford neither repetition, lengthy explanation, nor varied illustration. It presumes a well-informed teacher or a very well-trained pupil. In short, it confines itself to the strictly scientific treatment of the subject which appeals effectively only to the mature mind. It follows the strictly logical order.

Now the logical order is not by any means the order which is always calculated to hold the attention of the child. There is a pedagogical order, recognized by all good teachers, which follows, when expedient, the order suggested by the present interests of the child, neglecting for the time being the strictly logical sequence. Children are not always, in the adult sense of the term, logical, and it is a wise teacher that recognizes the fact. In her wisdom, she reorganizes from day to day the material of instruction in accordance with the child's changing and growing apperception-masses. And thus the canned goods of the text-book maker are through her skilful manipulation rendered not merely innocuous but nutritious.

To approach now the matter of the three R's. That the public and the school should ever be in conflict as to the great importance of effective instruction in reading, writing, and arithmetic is impossible. The criticism is not infrequently made, however

that the multiplicity of subjects in the school program, by reducing the time and effort bestowed upon these instruments of education has often misled teachers into minimizing the value of these instruments. Spelling and penmanship are the subjects in which it is claimed there has been and still is constant danger of retrogression. Arithmetic, it is admitted, has been cultivated with assiduity, if not always with practical results commensurate with the energy expended upon it.

The sub-committees that have had in hand the various subjects of the program are unanimous in insisting upon it that the best results in reading, writing, and arithmetic are attainable only through a rich and varied program of studies. Paradoxical as this may first appear, it involves nothing unreasonable. Neither reading, nor writing, nor arithmetic is a process *per se*. There must be an intellectual content to each; and the content should not be circumscribed by either text-book or tradition, but should be drawn from the whole realm of the child's activities and, whenever possible, from matters dealt with in the various other branches of the school program. The water-tight compartment system of instruction is a thing of the dead past. It belongs to the days of rule-of-thumb arithmetic, of counting one at the comma, two at the semi-colon, and three at the full-stop.

Economy of effort and effectiveness in the teaching of the three R's are to be achieved not by placing entire dependence upon exercises solely for practise in enunciation, or in calculation, or in penmanship. Such exercises are in no sense to be discouraged. Quite the contrary. But the school will fall far short of efficiency in the three R's unless the teacher is watchful to note the errors of pronunciation, spelling and expression of the pupil outside as well as inside the special reading and spelling classes; unless she sees to it that every written exercise in arithmetic or composition or whatever it may be is a neat and legible effort; unless the studies of the earth and man, are made to furnish problems to corroborate and illustrate arithmetical principles likely otherwise to remain abstractions. In brief, to guarantee a creditable output in the formal facilities of reading, writing, and arithmetic, the teacher must correlate these with the various other activities of the school. To quote the "Instructions to Teachers" issued by the English Board of Education:

"A facility in reading and writing should not be regarded as an end in itself, other wise children assume that reading is a tiresome exercise and that writing is a form of handicraft valuable only to clerks and accountants. The reality of the matter should be brought home to the child's mind that writing is a means for fixing in intelligible language and character the passing thought; that reading is a means of increasing the stock of words at command, of acquiring new ideas about men and things in the present and past, a resource for leisure, for illness, for old age, an essential not merely to success but to pleasure and interest in life."

Our program of studies, accordingly, before it can at all fully meet the needs of the child must be made up of courses of study not separate and self-contained but inter-related and coherent, indicating a unified process and a unified subject matter. The principle of correlation of studies is, in fact, one of the basal principles upon which a program and courses must rest. We have placed it first. Certain other important considerations which should guide the makers of common school programs and courses and some of which have already been referred to in this report may conveniently be recapitulated here:

- 1st. That knowledge should be presented as unified, not dispersed, the various courses of study being as fully as possible correlated.
- 2nd. That the knowledge which is likely to be of use in after life and those occupations which the pupils are likely to pursue furnish subjects for the common school program quite as educative as those subjects traditionally consecrated to education.
- 3rd. That the courses of study should keep in mind those pupils who leave school at the sixth, seventh, or eighth grade, and should aim to render these pupils so far conversant with the fundamental processes of commerce, agriculture, and other great industries as to ensure on their part a capacity for self-improvement.
- 4th. That while utility largely determines for us the subjects of the program, the topics, sub-topics, illustrations and applications should spring from the present needs, interests and environment of the pupils as well as from considerations of prospective utility.

5th. That the courses of study should be outlined and detailed in accordance with the increasing capacity and the changing and developing interests of the succeeding grades; that is to say, of the increasing age and experience of the pupil.

6th. That in all instruction it should be aimed at to provide the pupil with abundant contacts with material things and with society, and from his concrete experiences to proceed to an interpretation of the material, social and moral order in which he lives.

7th. That it is not prudent that a course of study should comprise only what the average child can fully retain in his memory throughout the school period or even throughout the year.

8th. That the program and courses of study should be such, in point of content and treatment, as to ensure not merely the instruction but the education of the child in point of character, culture and efficiency.

Adverting to the principle which we have put in the seventh place, we would have it understood that we in no sense underrate the value either of a good memory or of exercises calculated to render the memory efficient. Our purpose is, rather, to emphasize the well known fact that much that is taught in the history and the literature class, though forgotten in substance or in setting, may accomplish the very best results in the power to appreciate what is worthy in human conduct or important in our social relations. Much that is studied in the "Nature" class may appear to be totally forgotten; but nothing is surer than that, if the method of study has been sound, there has resulted to the pupil a greater readiness to deal with similar or allied matters; and this is the end sought. The facts peculiar to the problem are incidental and accessory, and are no more necessary to remember than are the numerical facts in those arithmetic problems through the study and solution of which the learner acquires a comprehension of the principles involved and disposes his mind to mathematical habits.

We feel called upon here to dilate upon this principle for two reasons; first, because there are well-meaning people who suppose that, since the youthful mind is permitted and practised to range over a fairly wide field of knowledge, this is done to the prejudice of thoroughness; secondly, because there are teachers who, discouraged by the readiness with which children forget, but, determined to be on the safe side, trust to narrowing instruction to the meager dimensions that will ensure a specious facility at the written or oral examinations. But a pat statement of principle by a pupil is no evidence of thoroughness of comprehension. To be thoroughly comprehended, the principle must be experienced in its application to real conditions. These conditions may be manifold and various; and, besides, while they may appear the simplest thing in the world when read or illustrated in the text, they may fail of recognition when met with in the material world—an experience familiar especially to the teacher of nature and of science. Hence it is that today it is recognized as the soundest procedure for the teacher to lead up through a wide range of contacts and experiences (experiments) to a comprehensive and lucid statement of principle. The business of gathering knowledge for use in later life is, in reality, but a comparatively small part of education. Yet there are teachers today who have not progressed beyond the ancient fallacy of regarding the chief business of the school that of furnishing the memory with ready-made knowledge. To ensure the retention of so-called "useful knowledge," they practise their pupils in conning and repeating individually and simultaneously. Or, to secure a showy output of verbal reproduction of potentially valuable facts and processes, they compel attention to the task long after interest is exhausted and fatigue-point reached. Reading, spelling, and arithmetic, we know, for example, as taught in unbroken periods of from one to one and a half hours, in the false hope that the child will retain better what is taught him.

In conclusion, it remains for us to submit herewith the reports of the various sub-committees, prefacing them with the explanation that the compilers would have them considered only as marking a stage of progress toward a complete revision of the courses of study. The general committee, which, it had been hoped, might be in a position to thoroughly revise and correlate the schedules presented by the sub-committee, has so far failed to find sufficient time and opportunity to do so. It would, however, present the attached drafts of courses as somewhat briefly indicating its views as to the nature of the revision needed, relying upon the consensus of the Provincial Association either to sustain the position taken in the general and the sub-committee reports and to order a completion of the work, or else to put the completion into the hands of a small committee to be appointed by the Association.

## READING: GRADES I, II, III.

The initial effort of the teacher is to awaken an interest in stories hidden in books, and, through this interest, to command the child's attention to the process of recognizing words as wholes, of making words out of separate sounds or letters (phonic synthesis), and of finding out new words by phonic analysis.

Children often learn to read quite a little without knowing the letters of the alphabet: they learn whole sentences, or thought-units, from the book, and, incidentally, they perceive word-elements. This fact furnishes the teacher with a hint as to how to begin; i. e., with whole sentences learned as wholes; or, at least, with words learned as wholes. Most of the words that the child will learn during the first year will be acquired by the whole-sentence, or whole-word, or "Chinese" method. The whole-sentence method has a special value in its ensuring a measure of expression in reading, saving the exercise of primary reading from degenerating into a mere naming of words in their order without coherence or meaning.

Word-making should, later, accompany this exercise. The teacher may begin analytically, thus: Let her write or print short and regularly spelt words on the board, pronouncing each word slowly and repeatedly, so as to bring out the component sounds. For example, the words *net*, *pet*, *pen*, pronounced slowly; then pronounced *n-e-t*, *p-e-t*, *p-e-n*. The children should join in this exercise, which may be resorted to daily during the first half of the year.

In the course of five or six weeks a new step may be taken concurrently with the daily reading lesson: the words may be taken apart and their component sounds associated with the letters that represent them. The letter thus acquires a meaning.

The next step—anywhere during the second or third month—is word making, a constructive exercise. The teacher may begin by writing or printing slowly and repeatedly on the board a vowel such as *a*, giving its short sound only (and, if she so chooses, its name). Three or four consonants that will form words with this vowel should similarly be given; e. g., *r*, *t*, *c*, *p*, and their sounds (their names are of no assistance) uttered very distinctly by teacher and pupils. Words, such as *rat*, *cat*, *cap*, *tap*, *rap*, *pat*, may now be put together.

The entire process of word-making is thus illustrated. Step by step, during the first and second years this process should go on, three or four minutes of each reading lesson being devoted to word-analysis and word-making, until, in process of time the whole gamut of vowels and consonants shall have been practised. Excessive use of this exercise may produce a tendency to stammer. At first, only those words should be studied whose spelling perfectly agrees with their pronunciation.

No book is necessary during the first months, as the blackboard better serves the purpose of fixing the attention of the class. Later, when the First Book is taken up the child will be prepared to make good progress with the printed page.

No matter at what stage the pupil may be, the teacher should be unremitting in her effort to keep his imaging power active. He must visualize—that is, *mentally see*—what he reads. Reading is thus made the process not merely of recognizing and uttering letters and sounds but of associating mentally these sounds or words with the things they signify. Failure to make this effort will result in the easy and disastrous habit of 'saying things off' without imaging or understanding them—a condition fatal to the educative process.

In analyzing words and in sounding the consonants for word-making, the teacher should be careful to make the sounds of *f*, *k*, *h*, *p*, *s*, *t*, *x*, *ch*, *sh*, *th* (as in *think*) as mere friction-sounds with no aid or accompaniment from the throat. The safest way is for her to get a trained teacher to give her the correct sounds. She should learn, too, very carefully, the respective counterparts of *f*, *k*, *p*, *s*, *t*, *ch*, *sh*, *th* (as in *think*), *vis.*, *v.* *g*, *b*, *z*, *d*, *j*, *p* (as in *measure*) and *th* (as in *this*), and should produce the latter as the same friction-sounds accompanied by the throat or vocal chords.

The names of the letters of the alphabet in their regular order ought to be given at some time during the first or second year, it being remembered that these names do not greatly assist the child in learning new words. The letter-cards with pictures are useful; so are song-rimes and rhythmical divisions of the alphabet. Once the names of the letters are known, the teacher can resort to the exercise of spelling, keeping in mind that one learns to spell words only in order that he may be able to write words.

The literary faculty, it should be remembered, is capable of some development, even in the primary grades. The literary element is not wanting in the Second Reader. Thus, the little story on page 5 is a model of conciseness and of wholesome sentiment artfully concealed. There is humor in *Bell the Cat*, *The Dandelion*, *The Rainbow*; a pleasing moral in each of the several fables found in this book; a frank and charming imagery in *The Wind*, page 22, and *The Daisies*, page 55. In the jingles, pages 1 and 9, there are at least melody, rime and rhythm, so captivating to the juvenile ear and tongue. A *Pleasant Day*, page 40, expresses the child's delight in sunshine and play. These lessons are not mere pages to be monotonously spelled out and droned out. The teacher must in each one strive to catch the sentiment and to awaken in the child the proper response to her own feelings and, thus, to the feeling and melody of the piece. If she can find nothing in the reader but words, material for spellings, for grammar questions, or for dull queries as to Who said so and so? Who did that? How do you spell that word? etc., etc., the higher purpos of reading is unknown to her, and the emotional life of the child is left to starve.

#### READING: THE HIGHER GRADES.

During the first three or four years, so irregular and perplexing is the spelling of English, the efforts of the child are of necessity mainly directed toward finding out words—word-naming. Word-naming is, however, not reading; and the pupil must not be permitted to leave a passage until he has expressed the thought of it fluently and in the natural tone of one talking. As time goes on, the word-naming effort diminishes, and the pupil's effort becomes more and more that of uttering the thoughts of the text, and of seizing and conveying the emotional element that may inhere.

Subsequent grades of reading call for no new development in method. Nothing, however, that has been emphasized in the treatment of the lower-grade reading should be ignored in the higher grades. The easy and erect posture, the natural poise of the head, the distinct enunciation of consonants, the full and sonorous utterance of vowels, the frank but flexible tone of voice,—effort to maintain these should never be relaxed.

A word as to what is meant by good utterance. Of primary importance is the sounding of the vowels free from nasality and free from throatiness. Practise the vowels separately and as found in words, and one will find he has three voices, a nasal, a guttural or throaty, and a clear, bell-like one. (Cultivate this last one.) Next in importance is the preservation of the time-length of vowels. Ignorance or neglect of the time-value of vowels is largely responsible for the inaudibleness, the undue rapidity, and the general meanness of school-reading, recitation, and conversation. English vowels uttered in speech have each a time-value which can be measured by the watch. Neglect to sustain the vowel tone destroys its carrying power and obscures the accompanying consonant sounds. To illustrate: The careless, ill-spoken person says "I w's g'n' dow' th' street" or "I w's go'n' dow' th' street;" or, "He w's empt'ng th' water ou' 'v th' ol' boat," almost annihilating the vowels and consonants indicated by the apostrophes.

In the reading of poetry, capital opportunity is afforded for giving due value to vowels, as well as for distinct utterance of consonantal sounds and syllables. The power to sustain the voice at the end of a line or throughout the line is identical with the sustention of the long vowels. Take, for example, a stanza from the Sixth Reader:

*"O rivers, rolling to the sea  
From lands that bear the maple tree,  
How swell your voices with the strain  
Of loyalty and liberty."*

The very long vowels are in the italicized words. Shorter are, rivers, bear, maple, your, voices, loy. Very short and almost inaudible are the remaining vowels. The untaught pupil reads the passage so that all the vowels are about equally short, choppy

and contemptible. His rate of reading is, consequently, far too rapid; and the general effect is wretched. No wonder such pupils with such teaching never get to enjoy poetry.

If a pupil be practised to note the identity in sound and the great difference in length of the vowels in the following pairs, the lesson will come home to him; taste, tame; pot, pod; note, old; not, loll; yet, yell; pert, herd; eg, ell; it, ill; week, ring; folk, fold. Worth while will it be, too, to practise him on words containing very short, unaccented vowels; e. g., notice, spirit, immense, mountain, orange, obey, window, tomorrow, pudding, going. In careless speech all of these vowels are sounded alike obscure, the effect on the critical ear being that of illiteracy and vulgarity. Then there is the frequently mispronounced vowel in the first syllable of carriage, marriage, and the last syllable of prepare; in pass, glass, path, which should be the same as in mark; in food, foolish, which should be the same as in too; in again, which in conversation is often sounded like again; in mas, which too often sounds like muz; in get, forget, which are corrupted into git, fertit; in can go, often sounded kin go; scared, pronounced skeerd.

Teachers who consider themselves sticklers for pronunciation often slight these familiar and seemingly easy words, devoting their attention solely to the correct placing of the accent of unfamiliar words. Far better to begin by cultivating an ear for vowel values, accurate enunciation of consonants, and well-placed, sonorous speech. Once a speaker has learned to read slowly, to listen to his own voice, to criticize narrowly his own speech, he will not fail of effectiveness in improving his pupils and in developing in them an ambition to excel in purity of utterance. Besides, nothing will do more to heighten the self-respect of teacher or pupil than will the consciousness that his utterance is correct and refined. It is a most important fact that when a young person leaves the kindly and uncritical environment of his native village to go among strangers, the social position accorded him depends more upon his speech and manners than upon the academic or technical scholarship he may possess.

There are thus two main reasons why reading aloud holds so important a place in the school program; viz., its correcting and refining influence upon the speech, and its stimulus to emotional expression. The latter is even more important than the former. The reading period is the one, *par excellence*, where the teacher and pupils are oftenest lifted into the realm of emotion; where the purer passions are stirred by tales of kindness, heroism, sacrifice, and suffering, or by the genial touch of poetry. The human element in literature being the most powerful in its appeal to children, as to older persons, will require less effort to interpret than the nature element. Since, however, a large part of our literature, both prose and poetry, is concerned with the interpretation of nature in its emotional aspects, or, rather, as awaking emotion in mankind, there is an additional incentive to the teacher to stimulate in children an emotional attitude towards nature, towards sky and sea, mountain and stream, sun, moon and stars, night and day, plant and animal life, color, form and sound in nature. The nature lesson, the lesson in plant and animal life, in elementary astronomy or physical geography, the lesson in drawing,—each affords opportunity for this. And this emotional factor in nature-teaching should never be forgotten or neglected; so that, when in school a piece of natural description constitutes the reading-lesson, it may be interestingly and profitably dealt with as picturing aspects of nature by us only imperfectly observed, and as throbbing with a feeling native to all humankind. Let the teacher who has not yet developed this feeling for nature be not discouraged. Increased acquaintance with nature and with poetic interpretation of nature will supply the deficiency. Indeed, a few good pieces carefully and slowly read and carefully imaged will work a miracle with the spiritual vision. For this purpose the most familiar pieces may prove the most effective, even as by reason of this very familiarity they are likely to be the ones least regarded. The prescribed readers have excellent examples in Tennyson's "Brook" and Bryant's "Lines to a Waterfowl."

Once a teacher has come to take delight in emotional expression and well uttered English, she will easily be tempted to follow the practice of all judicious teachers in reading aloud from time to time to her pupils. This will occur not only on the occasion of the regular reading-lesson, where it may be desirable for the teacher to set the tone and sentiment of the prescribed passage, but at other times, and, indeed, whenever she may have come across something suitable or entertaining to the pupils. The further she can admit her pupils into her own intellectual life, the more pleasing and purposeful the relations established in school. The practice of reading to pupils has an economic value, too, in its presenting to the latter material which they may work over and reproduce either orally or in writing.

Lastly, let the teacher stimulate among her pupils all the private reading possible. Set the pupils reading. Aid them in their choice, letting interest be the chief ground of recommendation. Question them as to what they are reading, what book they like best, what the book deals with, who the characters, etc. Do not insist too much upon the child reading "to improve his mind." Be content that he reads, so long as what he reads is not unwholesome.

### ENGLISH IN THE COMMON SCHOOL GRADES.

It is with somewhat of diffidence that we address the teachers of Nova Scotia on the subject of "English in the Common School grades," because we believe that ninety per cent of the success depends on the intelligent industry and influential personnel of the teacher. An energetic instructor is able to do better with hardly any plan than a listless one with a flawless method. And, again, let a teacher be ever so energetic yet impatient with any of the little ones, and she will see these embryonic scholars show a shrinking reserve, that, like a wall will be hard to scale; a wall most baffling to an instructor. She needs a patience of an active nature, that sitteth not on monuments nor in the scorners' chair, but a kind that reaches out in that encouraging loving way to which little folks quickly respond.

Although we address you teachers diffidently, we can say that we are not putting before you anything carelessly thought out, we are giving you the result of careful thought on our part and, more important, the maturest opinions of advanced educationists.

But with all that, you must not expect to hear of, or afterwards yourselves to perform, miracles; for we must all admit that our English course can only aim at securing the ability to speak, read and write plain English with moderate fluency, intelligence and accuracy.

Before presenting to you, therefore, the curriculum on English, we think some foreword of an advisory nature may not be out of place here, as to the "how" and "how not" in the teaching of English to very young pupils. Therefore we would say:—

Let the children be encouraged to talk individually; collective answering and repetition will simply afford the timid beginner a chance to run to cover under the general reply, and will thus be a hindrance to genuine thought.

Remember that a talkative child, untrained, is the unpopular brat whose questions often embarrass; but the talkative child, intelligently trained, is the one whose questions we are delighted to answer. There is no doubt that the absence of free expression in many of our common schools accentuates that reserve aforementioned. Repression of free speech means repression of clear thinking.

To remedy this and to bring out the latent speech power in the individual pupil, teachers should have every aid and instruction possible. They should be confronted by printed instructions to the last possible detail, either in the register or in circulars supplied them, of all the branches dealt with in every grade, together with clear and held details of the order of procedure. They should be supplied with proper books from which they can obtain the proper subjects and stories, and the school library should be brought in as a part of the daily instruction and made a real force. Teachers in many cases cannot be left to themselves to supply the needed aids. They sometimes do not know what to procure nor where to procure, and finally they cannot afford to pay for the books themselves. The School Boards should supply them, or they can be raised by the usual way of a school concert. Lists suitable to every grade could be sent to every school. If the journals from time to time publish such, not half the teachers see them. This is not the fault perhaps of the JOURNAL. But if a list is mailed to them, prices and publishing houses plainly stated, they should have no excuse for not procuring them, which a vigilant inspector cannot argue aside. Libraries, it is true, are forming all over our provinces, and this is a most encouraging sign; but are they used? and if used, are the readers controlled and guided by the teacher? To encourage this idea, the introduction of silent reading for a part of the school desk work from Library books is recommended especially in Miscellaneous Schools; and it is further recommended that the teacher devote an hour or half an hour a week in questioning the readers on what they have read at school and later at home.

As to suitable reference books for teachers of the lower grades on the subject of English, we would recommend "*The Mother Tongue*" Books I and II by Arnold and Kittredge" Published by Ginn and Company., Boston Mass. Book I is splendidly adapted for the first three grades on the lines of the curriculum presented here.

Another good work is "*Steps in English*" Books One and Two, by Morrow McLean and Blaisdell. Published by the American Book Company, N. Y., prices between 25 and 50c. per volume.

Now as regards the introduction of the text book in Grammar, we will quote from "*Suggestions for the Consideration of Teachers of the Elementary Schools in England*," for 1905. Here we read:—

"Until a child has learnt to think consecutively and to express his thoughts clearly he has no basis for that more formal study of language which is called Grammar. It is impossible for a child to learn a language through its Grammar, and this is more true of English than of most languages, for in English the meaning is for the most part determined by the relation of words to each other in the sentence, not by any change in their forms. Not that grammatical distinctions are altogether beyond the comprehension of scholars in the lower classes, or that they may not be employed with some advantage even there by a skilful teacher. But the use of grammatical terms distracts the attention of teachers and pupils alike from what at this stage is all important, viz., practice in the "use" of good English, and the comparatively easy and mechanical character of a grammar lesson is a temptation to the weaker teacher.

"The aim of Grammar is to make evident the conditions of clear expression; but this end can never be reached by centering on the word. The attention must always be fixed upon the word, the phrase, or the clause, not in itself, but as it occurs in the sentence; in other words, it is the function of the word, the phrase, or the clause, which is grammatically important. When, therefore, a scholar uses ambiguous expressions in the composition lesson the fact should be pointed out and the conditions of clear expression should be explained."

Further on, analysis is encouraged in connection with the reading lessons in these words:—

"Analysis in fact supplies a new set of formulae under which the meaning of book language (and especially of the language of the higher poetry) can be concisely discussed." "The minuti of Parsing," it states, "should be completely omitted. When the relation of a chief word, or of a phrase, or of a whole clause, to the rest of the sentence has once been established, it is unnecessary to proceed further"

The above remarks can be severely applied to our present text, owing to the above reasons and the ambiguity arising from the wording of its definitions. Take for instance, the definitions of case and mood, where the pupil is told in explicit wording that they are changes in the form of words. But these rules are falsified by the similar forms used for the nominative and objective cases of nouns. These cases are not due to a change in form, but to a change in order. The form "drive" can be an infinitive and an imperative as well as a subjunctive or indicative. "Were" is both indicative and subjunctive, and "be" is subjunctive, infinitive and imperative. Ambiguities such as these tend to confound the beginner to such an extent, if he compares and thinks, as he should be taught to do, that he had better leave the book alone.

Speech conforms to natural laws which, when tabulated, comprise a Grammar. They are the mere signs of proper thought expressions and are noted as the common properties of speech. The laws of environment and necessity are the powerful factors of speech; hence we must begin at the bottom and work upward with the growing generations, guide and instruct them on the basis of natural grammatical laws, but we cannot dictate or command them to speak by rules in accordance with any laws.

Again, we need more practice in the clear enunciation of unaccented syllables and end letters such as "tion", "ment", "ing", "e", "y", and "s." Pupils who are allowed to develop a faculty for rapid speaking abound in these errors. The volume of the voice is also wanting with many, due to lack of training and timidity. Constant practice is also the remedy here. I was informed a few weeks ago by one of our most experienced kindergarten teachers that she had accomplished excellent results in the clear enunciation



tion of end syllables and letters by devoting a special time every week to this one feature. Teachers also should be instructed, in meeting with a dialect, to compromise as far as possible, because this is due to lack of some muscular throat development and not to any want of intelligence.

The instructions of the Education Department should be strictly carried out as to the memorizing of prose and poetical selections.

Poetry reveals the emotional side of life. In many cases it is the great vehicle of emotional and imaginative expression. There is a something in our spiritual or imaginative natures that responds immediately to the magic sound of metre and rhythm when it will respond to nothing else. Let not teachers therefore ever forgo exercises in poetic recitation on the ground that the child cannot or does not understand the poem; the very "not understanding" often means an added mystery and therefore an added attraction. Understanding will come later and with understanding a memory enriched with a store of beautiful thoughts.

## LANGUAGE WORK.

### GRADE I.

Talks on familiar objects between Teacher and Pupil. Picture stories orally. Teaching of alphabetical sounds by imitation and the introduction of the corresponding symbols with special emphasis on such letters as b, d, f, g, k, th and v. Practice in the pronunciation of syllables. Forming sentences from words in Reading lessons. Freedom of speech encouraged in all oral lessons by daily practice, not only on accented syllables but a clear enunciation of the unaccented syllables. This to be followed in all grades. Reader No. I. Spelling, oral and written.

### GRADE II.

Picture stories orally. Faulty pronunciation corrected by practice in free expression. Sentences to be carefully selected containing several examples of sounds often indistinctly or improperly pronounced. Teacher to practice reserved and timid pupils daily in free expression, accustoming them to the sound of their own voices before the class, before this habit of shrinking reserve becomes fixed. Introduction of unfamiliar subjects in a series of talks prepared by the teacher, who shall insist on its repetition by the class. Writing of longer sentences. Memorizing of simple passages of poetry suitable to the age of pupils. Reader No. II. Spelling, oral and written.

### GRADE III.

Picture stories more complex than in previous Grades. Sentences formed about familiar objects introducing the noun—not parsing—distinguish common and proper nouns. The use of the period and interrogation point. The same daily correction of indistinct and improper pronunciation. Memorizing of a few passages of poetry even when not fully understood—its mystery often lending an added charm.

### GRADE IV.

Written and oral stories. Short compositions on Nature work: as water, dew, snow and hail. Familiar letters, based first on models, in children's language, prepared by the teacher. Daily drill in voice culture, keeping in view the point of easy conversation, correct enunciation and voice volume. Nouns and verbs. Reader Grade IV. Spelling, written and oral.

Introduction of other books from the Library for silent reading, especially in miscellaneous schools, thus giving more practice in reading and encouraging a taste for self-culture and laying the foundations of correct taste. Such books as *Alice in Wonderland*, Roberts' *Animal Stories*.

## GRADE V.

Oral and written reproductions of narratives and descriptions, as, events of previous day, a holiday, a party or a concert. Nature stories of birds and animals. Stories filled in from outline prepared by teacher. Letters and bills. Noun, verb, subject, predicate, adverb and adjective pointed out, their uses explained simply as they occur in written work or in reading lessons,—parsing being thus a logical assistant to the understanding of the uses of the various parts of speech. Comma and quotation marks. Written work examined and corrected by the pupils under the supervision of the Teacher. As an aid to correcting of pronunciation and expression, the introduction of the reader in the hands of one pupil, the rest with books turned down; after the reading of each pupil, mistakes to be corrected by the listening pupils. Memorizing selections from prose and poetry. Select Reading as mentioned above; Robinson Crusoe, selections from Thompson-Seton. Reader Grade V. Spellings, oral and written.

## GRADE VI.

Model narrations and descriptions reproduced and imitated in original work and letters. Oral and written compositions based on outlines made by the pupils under the direction of the teacher. Nature composition on plants. Drill on the above work corrected. Rules for punctuation reviewed. Analysis and synthesis of simple sentences. Enlargements and extensions explained. Phrases and clauses studied. Transitive and intransitive verbs pointed out and their difference explained, followed by a selection of the same from Reader and suitable text as "Lessons on English." Reader No. VI. Spelling, oral and written.

Silent reading from appropriate Library books—Alcott: Little Women. Pyle: Some Merry Adventures of Robin Hood. Introduction of the Dictionary for reference. Memorizing passages of prose and poetry. Recitation of poetical passages. Correct and natural expression and manner encouraged. Declamation and posturing discouraged.

## GRADE VII.

Written, followed by oral, descriptions. Narrations and characterizations. Letters based on reading and experience. Written invitations and business applications. Special emphasis on correction of same. Nature composition on minerals. Parsing and analysis of simple sentences. Application of Rules of Syntax. Review of punctuation. Text book in Grammar introduced to aid review. Reader No. VII. Spelling, oral and written. Silent reading from books in Library.—Hawthorne's Grandfather's Chair; Dickens' Christmas Carol. Dictionary for reference encouraged. Memorizing of selected passages in prose and poetry.

## GRADE VIII.

Written and oral descriptions, narrations, characterizations and expositions. Written work to be examined by teacher and rewritten by pupil until correct. Paradigm of verb. Parsing and analysis of complex sentences. Parsing of words as they occur in sentences—simply showing their relation to other words in sentence. General review of parts of speech and punctuation and the encouragement of the text book for reference and practice of examples. Practice in writing business forms. Silent reading from Library books and the loaning of the same for home reading. Readings to be encouraged by leading questions on the same by teacher on an average of once a week, from books such as Stevenson's Treasure Island, Irving's Tales of a Traveller. Reader No. VIII. Spelling, oral and written, or from some prescribed text.

The predominance of written or practice work as submitted by the Subcommittee in this plan may satisfy to some extent that general and true complaint, that boys leave the Common and High Schools indifferent or poor writers. Writing is with most a matter of practice. We do not claim that anything very novel is recommended here, or anything not already mentioned by the Education Department, but that we have recommended the putting forth of more strenuous efforts to see that all subjects in the course are placed prominently before the eyes of the teacher, so that none may

have an excuse for ignorance of the same. That the practice of tongue and pen be as constant as time shall permit, and always under the guidance of the teacher; that the library be made a living force, not left to the whim or inclination of the young pupil. And we believe that such a course as outlined here, vigorously carried out by energetic teachers, will justify itself by a general improvement among our Nova Scotia pupils in this important part of our School curriculum.

W. A. CREELMAN,

Chairman Sub-Committee.

The Sub-Committee on Drawing and Constructive Exercises, begs to report as follows:—

The aims of the school course in drawing are, briefly:—

- (a) To develop accuracy and fullness of observation of material things.
- (b) To render the pupil capable of representing in the universal language of the draughtsman his images of material things, and his conceptions of form, color, and combination.
- (c) To develop capacity for enjoyment of what is beautiful in nature, art, and craftsmanship.

The fashioning of artists is no more the function of the school than is the making of poets. But failure in efficiency in the school that does nothing to enlarge the child's sense of beauty of form, color, and composition, is of the same kind as would result if the school made no effort to develop the child's sense of beauty in virtuous conduct, in literary form and substance, or in music.

There are considerations of pure utility, also. As an adult, the child will later have his work to do in the real world. It is, indeed, possible that the vocation he chooses may not call upon him for skill in drawing; but the chances are that either his vocation or his avocations will do so; and, whether or no, it is almost absolutely certain that at important junctures the ability to express himself through line, form, or color will prove of considerable value to him.

The school has, it must be acknowledged, a highly important duty in respect of teaching drawing; for neither the pictorial, decorative, or constructive power is likely to develop in the child without the stimulus and the instruction of the school. True, there may be the stimulus and assistance of a home in which forms of graphic and decorative or constructive art are practised; but, as a rule, the home, in its efforts at interior and exterior decoration, furnishing, dress, and capacity for enjoyment stands to profit both economically and esthetically by the modest but well-directed efforts of the common-school to develop simple, correct tastes.

From the first grades of the school it will be convenient for the teacher to recognize frankly three forms of activity in drawing:

- (1) Pictorial drawing,
- (2) Decorative drawing and designing,
- (3) Constructive work,

the last mentioned growing more and more conspicuous in utility as the child advances through the grades. Under pictorial drawing come all such exercises as are intended as a means of free expression for the child's imaginative and reproductive powers, comprising illustrative, imaginative, and memory drawing; drawing from the object, picture-study. The lessons in the reader, in geography, history and nature, prompt the pupil to depict scene, incident, weapons, buildings, costumes, flowers, plants, animals, natural features of the earth; and the interest of the moment may profitably be turned to account by having the pupils draw from memory, imagination, or from

the object that which has just passed under view. This form of drawing, too, associates itself with the environment and activities of the child; his games, sports, and recreations,—playing ball, snowballing, fishing,—the occupations of the home, of the farm, forest, mine and sea, all of which furnish subjects susceptible of pictorial treatment, varying from the amazingly crude efforts of the infant class, to the thoughtful drawings of the upper grades.

Under decorative come exercises in studying, copying, and fashioning units for harmonic repetition; designs for borders of pages, for book-covers, for Christmas and Easter cards, for blotters, for wall-papers, for print-cottons; combination of colors and tones for decorative purposes in mats, carpets, fabrics, dress.

Under constructive come the paper-cutting and folding, card-cutting, clay-modeling of the earlier grades, developing into the more purely mathematical drawing and construction-work of the upper four grades. It comprises plotting to scale, the solution of problems in constructive geometry, the drawing of plans of the school-house and school-district; plans and elevations of objects convenient, to be worked out in card, paper, or wood; the drawing of maps, designing of patterns, pattern-cutting in paper, in association with the sewing lessons for girls.

In no school should it be permitted to neglect exercises in the construction of objects appropriate to the interests and the ability of the pupil. To express form in terms of material substance such as paper, card, wood, is to bring the pupil into relation with material things, and with the transformation of raw material into useful and beautiful forms. No activity of the school will contribute more to his understanding that education comprises not merely a knowledge about materials but a power to manipulate them.

It is important for teachers to recognize that children's early efforts in drawing are excessively crude. Not only is the eye unpractised in determination of form and proportion, but the hand of the child is at first a mere fist, capable only of rudimentary whole-arm movements. Accuracy, neatness, correct proportion are out of the question; and the teacher must be content with maintaining the native interest of the child in depicting things, utilizing this interest to encourage him to observe with more and more accuracy. During this stage the pointed pencil is a discouraging medium, the brush or the blunt crayons—preferably colored ones—offering a much more direct and effective medium of expression. Later, after the child has acquired some readiness in mass-drawing, the pencil becomes useful as a means of acquiring exactness and accuracy. The flat color-washes and the colored crayons, moreover, permit experiment and instruction in colors, tones, and their relations.

So far as a revision of the course of study in drawing is concerned, your sub-committee would recommend that with some additional detail of exercises and of treatment, the "Alternative Common School Course" published in the "JOURNAL OF EDUCATION," be accepted as meeting the needs of the teacher and the school. Hitherto, drawing has been more extensively detailed in the printed program than have any of the other subjects. If it has failed in effectiveness this is largely due to the enforced neglect of the subject by teachers deficient in skill and lacking, until lately, the means of improving themselves through the aid of such a text-book as that at present recommended to them by the Education Department, (Augsburg's "Drawing-Course").

It remains for us to indicate the nature and extent of the additions we propose to the present course,—additions, not to the requirements of the various grades, but to the definiteness of these requirements and to the illustrative material suggested for the teacher's convenience. First, we would detail the constructive work of each of the grades, or for each group of two grades. To many teachers the practices recommended for the earlier grades—stick-laying, clay-modeling, paper folding and cutting—are mere names, no opportunity having ever been enjoyed of seeing these occupations practised. The Syllabus for the elementary schools of New York State devotes three pages (135 to 137) to a description of the materials and their manipulation in the first four years of school, and three pages to a description of appropriate manual tasks in card, wood and iron, for the four higher grades; also, a page of illustrations of hand-work, (see page 139). We would recommend similar treatment in our printed course, and would add a word to those teachers that find the time-table already pretty full, to the effect of procuring the execution of manual tasks at the pupil's home.

Constructive drawing, especially of the objects which are to be worked out in materials, should be illustrated by a few diagrams showing the nature of plan and elevation drawings, simple projections, and the uses of conventional lines; (compare N. Y. Syllabus, pp. 123, 126, 128, 130); and exercises in constructive drawing ought to be suggested, suitable to progressive stages of child life. Where sewing is taught in the higher grades, it may be made a sufficient manual exercise for girls, as outlined progressively in the English "Suggestions," pages 136-7.

In pictorial drawing, some explanation of "mass" drawing, of "flat" colors and tones, and their uses in the earlier grades, of the use of the brush and the making of ink or aniline washes, of the introduction and development of principles of perspective through the drawing of appropriate objects, should be given, unless, indeed, it is seen to that the teacher is provided with a proper instruction book. It might be beneficial to add a page or two of typical primary and intermediate grade drawings, as a standard of comparison, and as illustrating the use of pencil, brush and crayon. The best detailed course in pictorial and decorative drawing examined by us, is that of the Massachusetts's public schools, which divides the work into Primary, Intermediate, and Upper Grade, each schedule of work proceeding largely in the order of the seasons, their occupations, their flowers, fruits, birds, animals, and varying landscape.

Decorative drawing and simple designing ought to form a separate and additional category of exercise in the upper four grades, and, unless it is intended to have the teacher provided with a teacher's hand book in drawing, the printed course should contain suggested exercises in decoration and design as well as a few illustrations of units and repetitions, borders, conventionalized forms of leaves, flowers, fruits, etc.

In conclusion we have to say that everything reasonable should be done in the printed course to provide the untrained teacher with self-helps. It is to her lack of instruction rather than to disinclination that we ascribe the present neglect of drawing and construction; and there are teachers in every district who need only a few hints conveyed by letter-press or by illustration, to enable them to grasp the purpose of this work and to master its execution.

#### GEOGRAPHY.

In the first three grades the term geography need not be employed. During that time, however, the teacher should endeavor to bring the pupil into sensible contact with the most conspicuous phenomena of earth, sky, sea, plants, animals, and mankind, detailed treatment of many of which phenomena is indicated in the Nature-Study course. The sense-experiences obtained by the child in these contacts with nature; the elementary conceptions of position, form, size; of physical forces and changes; of man as an industrial and social element; of soil and of the products of nature and of cultivation; of color, landscape, clouds, hill, pond, brook, slope, forest, constitute a medium of interpretation of what he later will read in text-book and elsewhere. They form the apperceiving masses into which new experiences and new facts obtained from reading will seek to incorporate themselves.

In other words, during the first three years, the teacher's task is to provide experiences for the child's mind to work upon. No special effort need be made to relate these experiences to one another. It is enough that the child's sense-organs be kept active upon the simplest earth phenomena, and that from time to time his power of recalling things seen and heard be exercised. This first step in this latter exercise is made by the teacher's recalling nature-experiences that have been shared by the pupils as well as by her. The pupils may then be induced to join in the description, the net result of which will be the sharpening of the mental image which otherwise might have remained obscure or become obliterated.

This power of re-presenting mental images is a mental function of the highest importance. It is one of the forms of memory and is the basis of imagination. Without it neither geography nor history has mental content: they degenerate into a memorizing of mere words.

In the fourth year, some attempt may be made to relate earth-phenomena; and here, accordingly, the study of geography proper begins. Not that a text-book is to be used by the pupil. That is neither necessary nor desirable. What is intended is that merely the particular hills, brooks, slopes, riverbeds, etc., should come to be thought

of, first, as typical of hills, brooks, etc., in general, and, secondly, as related in position, direction, size, and causal function. The relation between brook and brooklet or ditch is to be thought of as typical of rivers and their tributaries. So of lakes and swamps and basins; of snow, rain, the clouds that discharge them; the slopes that shed them, the ditches and brooks that receive them.

The study of causal relations ought not to be carried too far, especially in the realm of natural phenomena. Much more interesting to the child, and, consequently, more educative, is the observation of human activities in relation to the earth and sea and their products. Home geography, indeed, may well begin with a view of the industries of the neighborhood. Everywhere in Nova Scotia either farming or gardening is practised. In it the teacher has available a type of human activity occasioned by the needs of mankind. Other industries are practised in the district, all of them directed to the end of supplying man's wants. Mankind must work, or perish. All men and women do not pursue the same calling. Diversity of industry necessitates exchange of products—trade or commerce. A detailed survey of the industrial activities of even the humblest school-section will provide material for many thought-provoking lessons of surpassing interest to children—lessons to which each child can contribute. No little measure of the value will accrue, in fact, from this very participation of the child in the radiant, unrestrained conversation upon the farming, dairying, gardening, orcharding, cider and vinegar-making, canning, preserving, fishing, curing, boat-building, mining, quarrying, lumbering, sawing, wood-working, tanning, shoe-making. Then there are the transportation facilities by road, river, sail, sea; the means of communication by post, telegraph, telephone; the churches, schools, societies, the country-town or nearest market-town and its relation to the surrounding country.

The mention of towns, etc., that lie immediately beyond the horizon suggests still another topic of the fourth year—the outer world and our relations to it, in trade, race, language, custom. The importance of such a method of approach as that indicated in the work of the first three grades will now be manifest. We have arrived at a point where we must deal with places, people, and processes that lie for the most part beyond the vision and the actual experience of the child. Facts are to be presented—facts relating to material things; not merely statements of fact, but images. And how?

The presentation of distant places, people, institutions, industries calls for mental pictures composed of simple elements—just such elements as those treated in the preceding grades. Through contact and experience and through the exercise of imagination and recall, the child has already obtained a body of geographical notions capable of combining to produce fairly definite and complete mental pictures of other places not unlike ours and even of far distant lands and peoples. To illustrate, the study of British Columbia calls for the visualizing of a large and varied panorama of lofty mountains, deep valleys, swift-flowing rivers; of forested slopes, and foot-hills overtopped by bare, rocky summits; of lumber and mining camps; of lakes, of valley and upland farms, ranches, orchards; of widely scattered towns and villages; of sea coast, bays, harbors, promontories and islands; of industries and activities similar to those of our own province; of people of our own race, language, customs and sentiments. Each view of this varied scene is capable of being constructed by the child out of fundamental ideas obtained either at first-hand, or through pictures, or through the medium of both when illumined by the imagination of the teacher.

No amount of text-book reading can be depended upon to effect this result. Reliance upon that agency is disappointing. From the book a child will easily enough learn to say, for example, that lumbering is one of the chief industries of a certain country, without his ever once considering what is implied by that statement. Probably he has seen logs floated down stream to the mill, or has witnessed some other part of the operation of lumbering. But that does not ensure his associating what he has seen with what is implied in the brief text-book statement. It is necessary that the teacher shall have bidden him inquire into the inception, the purpose, and the outcome of what he has seen, and in this way to put him in possession of the fundamental notions out of which to mentally picture the industry of lumbering and the people who practise it whether in Norway, Austria, or Quebec.

The discarded method of first teaching definitions of lake, river, island, and then proceeding to the committing of text-book statements bears no fruit in the power of mental imaging or in genuine interest of an intelligent kind. In permitting the child to recite what he reads without giving mental content to it is to establish mental habits

as fatal to intellectual growth as to true knowledge-getting. It is the office of good teaching to practise the child in associating word-symbols with the things signified; accordingly, it is imperative that the child should bring to the consideration of the text-book and of distant lands and peoples a mind stored with clear and definite geographical ideas developed, as far as possible, through actual contact with the phenomena of earth and man manifested in his own environment.

In the geography of the upper four grades the general method will remain the same. Innumerable are the teaching-devices to be resorted to; but, as the aim remains the same as in grade four,—that of extending the pupils' knowledge of the earth and of man's relations to it as an industrial and social factor,—it is only in details that the teacher can vary the procedure.

One more topic should be introduced in the fourth grade, or even earlier, viz., the map. Here, as elsewhere, the teacher must proceed through the avenues of the child's experiences and evolve the idea of the map as a pictorial representation of the ground upon which we stand. The floor of the schoolroom affords a first problem in map-making; then the location upon this plan, of the platform, the teacher's desk, and the front seats. Accurate drawing to scale ought not to be required at first, as this tends to complicate the problem. Next, the school grounds, the trees, fences, paths, gates, may form material for a new and larger map. Later, the public highway with its branchings, houses, buildings. The brook, the pond, the groves or forest, will find place in subsequent maps. So long as proportionate areas and distances are fairly well represented, there need be no worry about drawing to scale. Direction, in terms of the compass, is pertinent here. The first maps may be drawn with chalk upon the floor. They may be modeled in sand in a shallow box, buildings being represented by blocks, trees by tiny bits of evergreen, the brook or pond by a bit of mirror-glass, the railroad by two wires—the result being an approach to reality which appeals to the child's interest.

From this point to the regular wall-map is an easy step; and the map of Nova Scotia may be presented in its simpler implications of land, water, coastline, distances, directions, localities, towns, industries, before the end of the fourth year. No point is gained by proceeding from the map of the school district to the map of the county. The county is a political, not a geographical unit, and consequently means nothing to the child. One might safely, on the other hand, proceed at once to the globe and the hemispheres, coming back later to the Province. Of course, the earliest study of the globe is to be, not the political divisions, but the larger earth-forms, land and water, continent, ocean, islands, seas, gulfs, and a few great countries and cities.

The introduction of the text-book in the sixth grade necessitates care on the part of the teacher to prevent geography from becoming a merely literary study. The text should be relied on chiefly to provide statements of fact for interpretation by the pupil under the stimulus of the question, suggestion, or interpretation of the teacher, special effort being made to set forth the facts in their causal or other relations to one another or to facts coming within the experience of the pupil. The text-book may, for example, state in disconnected fashion the facts of the size, surface, soil, climate, mountains, cities, and products of Russia, without at all indicating the necessary connection between any or all of these. What is aimed at in good teaching is to develop out of these statements a picture of Russia as a large country of plains, forests, slow-flowing rivers, farms, grain-fields, villages and towns; of a climate and of seasons much like those of the same latitudes in America, and, therefore, with much the same vegetation and the same agricultural operations and industries; with villages and towns serving as markets and distributing-centers, as manufacturing centers and as seats of government; with rivers and lakes frozen in winter and closed to navigation, as with us; with a northern seaboard shut in by ice in winter like our own Northumberland Strait; with a population engaged chiefly in tilling the soil, raising cattle and horses, dairying, lumbering, and mining; with a christian population devoted to family, country and other ideals like our own.

This elaborate mental picture is derivable from the map and from the disconnected facts of the text; and it serves as a type of the mental imagery to be sought by the teacher in studying a country. Current events as recorded in the newspaper should always be utilized, and given their proper setting in place, politics, social or industrial conditions. Minor problems will continually present themselves, such as, for instance, the advantages of a certain location for a town, or the explanation of the rapid growth

of a community, either of which problems is best understood when paralleled by the study of similar problems in Nova Scotia. Thus, Halifax, Sydney, Springhill, Glace Bay and Yarmouth are illustrative of the conditions presented in the general problems of location and rapid growth.

Then there are the numerous physiographic problems which, out of place in the lower grades except in their most obvious aspects, are capable of being understood as they concern distant countries once they are revealed as the counterpart to natural forces near home. These must not be overlooked. Again, there are the simple astronomical phenomena. Further, the events of Canadian and British history, whose geographical setting may at times properly absorb the periods set apart for geographical study.

In the seventh and eighth grades, since the pupils bring to bear a developed moral-religious sense and an increasing knowledge of history, of natural phenomena, of physical forces, of trade, of society and government, of the races of mankind, of the world's events, it is fitting that the interpretation of home and foreign lands, of distant peoples, should be conducted with a view to developing in the pupils a human interest in the people of strange lands and alien races. The effort to appreciate what is worthy in men of other race and language and to promote a human sympathy between our people and those of other lands can hardly fail to bear fruit in temperance and tolerance at home, in a more intelligent Canadian patriotism, and in a saner and safer Imperialism. The annual recurrence of the festivals of July the First, Empire and Victoria Days, will afford in every grade occasion for Empire lessons, geographical and historical, appropriate to the age and intelligence of the pupils.

(Note on School Excursions. Plan beforehand and inform the children what you want them particularly to make observation upon. Don't overlook the fact that winter has much to teach us, and that the same place may well be visited in each season. While on the excursion, halt the class now and then and have them consider, in classroom fashion, anything worthy of observation or discussion. On the return to school, or on the following day, review the event and the things seen and discussed. In a miscellaneous school, the teacher might utilize as assistants in conducting the younger children older pupils or outsiders.)

#### GEOGRAPHY: GRADES I, II, III.

Talks with pupils about the seasons as they pass, with no attempt to explain these; the older people's occupations appropriate to each; the summer and winter pastimes and home-duties of the children; the low winter sun observed at noon, the early lamp-light; the high June sun at noon, and the long day; the trees, their changes; the weather day by day; color changes in forest, field, meadow, and sky, as days and seasons pass; changed condition of ground, brook, pond, plants; our summer and winter foods; housing and feeding of farm animals, and storing of winter supplies for man and animal; the arrival and the departure of birds; preparation for winter made by squirrels, bees, bears, caterpillars and other insects.

The country store or the town shops. The things the farmer, the fisherman, the artisan must buy. The things he sells.

The mill, the quarry, the mine, the coke-oven, the factory, the blacksmith's shop, the fishing-boat, and the catching and curing of fish, the shoemaker, the tanner, the post-office, the church, the school,—all and each will afford material for observation and explanation, the pupil taking the initiative in the conversation. The aim is to provide contacts and sense-experiences, to quicken a habit of inquiry and to develop language.

Visits should be made after school or at other times to some convenient hilltop, to the brook, brooklets, ditches, to a valley, a forest, river, harbor, beach, or whichever of these may be accessible, especial attention being paid to these as serviceable to man.

#### GEOGRAPHY: GRADE IV.

Home-geography, beginning preferably with a view of the industries of the neighborhood, the means of transportation, the institutions, elementary ideas of government, of trade and commerce, of postal and telegraph services. (In towns, the streets, sewers, water-supply, light, etc.)



Earth forms as related to one another; hill and valley; pond, lake, swamp, brook, and the surface contour determining each; soil and its formation by various agencies; the action of running water, of frost, of melting snow; mountain and valley; slope and watershed; (in maritime districts, coast, beach, bay, harbor, cape).

Man's direction of natural forces: draining swamps, clearing and tilling land building bridges, breakwaters, mill-dams for water power; navigating lakes, rivers, seas by wind, steam and other agencies, guided by light-houses, signals, weather-predictions, etc.

In all of the foregoing the aim is to quicken the pupil's power of observation and to deepen his insight.

Plans of schoolroom and grounds; plan or map of district showing roads and buildings, brook, pond, forest, etc. The sand-map as counterpart of the plan drawn on paper or blackboard.

The world that lies beyond our horizon: Nova Scotia; ideas of distance expressed in travel-periods by rail, on foot, etc. Map of Nova Scotia explained as the continuation of the plan of the district already made. Ideas of direction derived from the sun's position; the four points of the compass and their application to the map hung on the north wall or laid on the floor with the top to the north. Surface forms not found in the neighborhood comprehended through the medium of miniature forms in nature and on the sand-map. The surface and coastal features of Nova Scotia, its chief towns and the means of access to them, its rivers, mountains, means of communication and transportation. (County lines and names mean little to children and may be omitted. The province, on the contrary, as a geographical unit will easily be apprehended).

The world as a whole, from globe and hemispheres, merely to permit the general conception of its form, its great land and water surfaces and our position thereon.

#### GEOGRAPHY: GRADE V.

North America as a land form on the earth's surface. Its larger features, political, natural, climatic; its countries, cities, bays, gulfs, rivers, mountains, islands.

The Dominion of Canada in slight-detail; its greatest river, mountain range, islands; its provinces, chief cities, chief routes of travel and trade, distances measured in days' journeys, products of soil, forest, sea, mine.

Nova Scotia in considerable detail, not only its natural features but these in relation to its industries, its population, the location of its chief towns and to a few leading events in its history. Drawing of local maps, maps of Nova Scotia and Canada.

Day and night a turning of the globe or earth towards the never-moving sun; warmth and coldness as determined by sun and winds; the overhead sun and its long day-journey in summer, the low noon-sun in winter and the short day, as affecting climate and vegetation. The polar and the equatorial regions contrasted, with their low and high suns, and their differences of climate and products.

The equator on map and globe; parallels north and south.

#### GEOGRAPHY: GRADE VI.

The continents, oceans; European countries and their capitals, their great rivers, mountains, seas, gulfs; the chief countries of the British Empire. The peopling of Canada from various countries. Approximate latitudes of various countries, with inferences as to their climate and vegetable and animal products.

Canada, completed, with the aid of the text-book, the purpose having been to conceive of our country not as a place on a map divided into colored portions called provinces, but as a continuation of the school district in which the child lives. Its extent as conceived in terms of miles, of days' journeys, and of greater units of distance; its fairly uniform climate and products throughout the economically important area. The northern and unsettled regions. The coastal, mountain, and valley districts of

British Columbia; their people, villages, towns, industries; the rapidly peopling provinces of the Middle West, their inducements to settlers; the immense prairie, its fertility, its loneliness and its monotony; the advantages of life in our Maritime Provinces with their varied scenery, milder seasons, invigorating sea-air, productive soil, abundance of fuel, fish and fruits, variety of occupation and of outdoor pastimes. The Saint Lawrence provinces and their place in the agricultural, lumbering and mining activities of Canada; their great size and population; their chief cities as manufacturing and distributing centers. The Maritime Provinces similarly studied.

The great rivers and lakes of Canada as avenues of communication,—the canals fed by them; the great railroads built and building; the postal, telegraph and telephone services; the location of towns as determined by trade advantages; the various means of transportation and travel.

The nature of trade, foreign and domestic; our imports and exports; items of food, clothing, house-furnishings, where they come from; the several shops and where their several articles of merchandize comes from.

Federal and provincial government; taxation and revenue; public works and public services. County and town government.

The people of Canada, the races represented, the languages spoken; the religions, the great moral and philanthropic agencies and activities. The duties of a citizen, civic, social, moral and religious.

Map-drawing, not so much as a drawing lesson, as to clarify and fix ideas of area, distance, latitude, and means of communication. Longitude, meridians and parallels. The seasons and unequal day and night presented in an elementary fashion through medium of globe and diagram.

Map-interpretation: the map as showing elevation of land, coast line, courses of rivers and consequently the slopes and drainage basins of a country; as showing elevation, latitude, maritime or inland position and therefore permitting inferences as to temperature, rainfall, prevailing winds, approximate length of day in summer and winter, vegetable and animal products; as showing location of towns and cities and therefore the general distribution of population and the trade routes.

#### GEOGRAPHY: GRADE VII.

Whatever physical features the particular district presents, to be studied by direct observation. For example, the natural and artificial drainage. The brook may be mapped in detail, not only its course, tributaries, levels, widths and depths, but the plants and trees along its margin, its aquatic plants and animal life. Then there are to be noticed the wearing-down and building-up processes carried on by it; the movement of stones by ice; the effects of rain and melting snows; its source and tributaries and the springs that feed it. So, in maritime districts, the effects of wind, frost, waves, and tides upon the edge of the land.

The map of Europe studied for great drainage slopes, highlands, lowlands, great plains, coastal indentations, natural highways of commerce like the Mediterranean, the Rhine, the Danube, the Elbe; great ocean ports and ocean routes; the chief commodities for export and import and their destination, especially those sent to our country; imports, and especially those from Canada; names of countries and their position on the map; great cities; languages and races, especially those that have been prominent in civilization, colonization and commerce; latitude, longitude and elevation as determining climate and vegetable products; the chief colonies of Britain and France; the religions of Europe; Europe as the chief seat of Christian culture.

The British Isles in some detail, attention centering chiefly on area, latitude, climate, surface, soil, natural products; the dense population; the great manufacturing centres, ocean-ports, river-ports; universities and schools; colonial enterprise, and nature of colonial and foreign trade. The English-speaking peoples of the world, their similar ideals of religious tolerance, self-government, personal liberty, civic duty, family relations, frankness, courage, individual resourcefulness.

France, studied as the land of origin of many of our Canadian people; its latitude, climate, products, great cities, its trade with Canada and with Britain.

## GEOGRAPHY: GRADE VIII.

The seasons, long days and short nights, etc., observed and recorded. The direction and length of shadow of an upright stick at noon each day, recorded at least monthly throughout year. Latitude of a place as determined by the sun's height or the length of stick's shadow at noon. Our longitude as shown by the difference in time between a watch keeping London time and the school clock.

The United States, studied in accordance with the prescription for the British Isles, in grade vii, with names and chief cities of the most important states.

Mexico, the West Indies, South America, studied first, from the map, as Canada was studied in grade vi, with special attention to Brazil, Argentina, Peru, Chili.

Asia, especially Palestine, Japan, China, India.

Africa, especially the South African Republic, Egypt, Morocco.

Australasia, and the various island colonies and minor possessions of Britain.

Commercial geography: great trade routes, by rail, steamer, caravan; the world's great shipping ports, London, Antwerp, Liverpool, New York, Hong Kong, Hamburg, Montevideo, Marseilles, Singapore, Cardiff, Kobe, Genoa, Buenos Ayres; their position relative to great ocean routes.

Classification of commodities as vegetable products, comprizing products of the forest, such as timbers of various kinds, rubber, cork, bamboo, turpentine; products of the farm, as wheat, rice, roots, fruits, sugar; products of wild and cultivated shrubs, as tea, coffee, indigo, spices; textile materials, as cotton, flax, hemp, jute, wood-pulp; products of animals, as meats, wool, hair, hides, fats, horn, ivory, furs, feathers, eggs, dairy produce; fish products, comprizing food fish, oils, fertilizers; products of insects, comprizing cochineal, lac, silk, honey, wax. Most of these the teacher will be able to trace to their sources in various parts of the world.

Facilities and restrictions to trade; *v. g.*, commercial treaties, customs duties, excise, paper money, coinage, posts, telegraphs, and means of transport.

(Handbook of commercial geography recommended to teachers: Mill's Elementary Commercial Geography, pub. by Cambridge University Press, England; price one shilling.)

Government, as despotic, democratic, or as partaking of each; the nature of representative government; its universality among highly civilized peoples.

## HISTORY.

The Sub-Committee on History Study begs to report as follows:—

That the object of History Study should not be so much an attempt to store the mind with past human events, as to train the Student to reflect on the changes and vicissitudes of human life as exemplified in the deeds of the past and to enable him to cast a discerning eye upon the acts and motives of his fellow men. And that it is therefore the duty of our Educators and should be the plan of Education, that History should be so presented as to accomplish this result as far as our circumstances may permit.

There has been a revolt of late years against the history of crowned heads and a desire that history deal more with the common people and less with a nation's dignitaries. It is our opinion that we should make haste slowly in this direction or we may err in another direction. A history wholly of the common people would be little more than a text on sociology. It is the uncommon man who makes history.

The first kings were leaders from force of merit and stamped their character upon their age. Their immediate successors and their nobility were almost the only makers of history in their day and generation. True it is that they may have suppressed nobler leaders, immersed in the ignorance of the common people, but until these became active, history could take little account of them until they in time became leaders, growing in strength, struggling against kings, growing in many instances weaker.

But the king being the centre of these struggles, could not be ignored by any wise historian until his figure no longer dominated the stage.

History, therefore, is an account of the deeds and the results of the deeds of a Nation's great men, its true kings. Of little significance is it whether they wear a crown like an English Henry or an Edward, or a workman's cap like a Stephenson, or an Edison.

Again people do not rise *en masse* and struggle for liberty or great principles. These struggles were conceived in and guided by the minds of single men who sometimes paid forfeit with their lives for arousing an indifferent or hostile commonality, joined to their idols and desiring but to be let alone. History, therefore, as a study to interest and benefit should in our estimation, be biographical. History that will be a living influence to the rising generation cannot be too much centred on the central characters and not on their contemporaries.

The educational leaders of the United States have of late been giving more attention than formerly to this important subject. We quote the following from the Report of the Committee of Eight on History, of the National Educational Association, held at Los Angeles, California, July 8-12, 1907. The general conclusions of this Committee have been stated as follows:—

"It is believed that a leading aim in history teaching is to help the child to appreciate what his fellows are doing, and to help him to "INTELLIGENT VOLUNTARY ACTION" in agreement or disagreement with them. To accomplish these results there must be continuous attention in each of the grades to CONTEMPORARY PROBLEMS suitable to his intelligence, and also attention to events in the past he can understand. In the first four grades, while the teaching must be incidental it will serve to give a correct attitude toward later history. History and civics also should be presented as allied subjects, emphasis being placed now on the history, and now on present civics.

"The Committee believes that the subject-matter for a course in the Elementary Schools should be selected from American history. But this is not to be interpreted in a restricted sense. The pupil must be led to understand that American civilization and institutions have their beginnings under European surroundings, and that the problems of our National life, even to the close of the first quarter of the nineteenth century, were in a large measure clearly connected with European problems."

Then the Report states that this committee has under consideration for fourth and fifth grades a series of well selected American biographies. In these grades there is no attempt to do more than give vivid pictures of men and their times but the pictures or stories are arranged IN SEQUENCE, so that the children may unconsciously gain a feeling of the close connection of each story with those preceding and those following. Pupils in these early grades are not prepared to take up causes and effects in any logical way. The considerations which guide in the presentation of the material for the sixth grade are stated in the report as follows:—

"First, a desire to emphasize geographical facts, not alone those which form a part of the history of the discoveries of the fifteenth and sixteenth centuries, but also the simpler incidents of previous geographical discoveries. Second, the desire to put the facts of emigration to America in connection with earlier movements of peoples. Third, the effort to show in a very simple way the civilizations which form the heritage of those who were to go to America, that is, to explain what America started with.

"Lastly, to associate the three or four peoples of Europe which were to have a share in American civilization, with enough of their characteristic incidents to give the child some feeling for the names, England, France, Spain and Holland. The period of the discoveries should also be included in the work of this grade.

"In the seventh grade should be considered the exploration and settlement of North America and growth of the colonies, with accompanying European background, through the period of the Revolution. To the eighth grade would be assigned the formation and inauguration of the new government; the industrial and political development of the United States; westward expansion and the growth of rival European nations.

"The plan of the ENTIRE COURSE is based on the proposition that the history teaching in the elementary schools shall be focused around American history; but that American history shall be regarded as distinctly related and developed out of the history of the surrounding world; and that if we would maintain interest throughout the course we must AVOID THE RECURRENCE IN SUCCESSIVE YEARS of the same subject matter.

"The method that should prevail is the method that characterizes the good story teller. Our history teaching in the past has failed largely because it has not been picturesque enough. There has been so much repetition in successive years that the charm of novelty was absent. Interest has been forestalled. The Committee has steadily kept in mind the demands of the hour, the capacity of the teachers as they are now. The grouping of the work is so flexible that, while it affords scope for the most talented teacher, yet the teacher of lesser attainments, of restricted information, can make it the basis of a measurably satisfactory presentation.

"The grade teachers need and desire just such pedagogical 'apparatus' as they find in our newer text books (our Nova Scotia texts are yet to come), and just such DETAILED syllabi as this. From time to time they have heard discourses, and read treatises (so have our teachers) on the principles and methods of teaching this subject, but these are comparatively MEANINGLESS to them unless supplemented by LISTS OF TOPICS WITH REFERENCES AND SPECIFIC SUGGESTIONS, like those included in this report. We are dependent in this country, if we would gradually emerge from the hopeless diversity that characterizes our history teaching, upon CONCENTRATED efforts like the present one."

Does not this apply most aptly to Nova Scotia?

We see by this American Report of 1908 that history teaching in that country has been allowed to run in the old groove as it has in this country. As their history is similar and contemporaneous with our own, as we are sprung from the same peoples and have the common mother tongue, it appears to the committee that we could go to no nation and learn, if they have made more progress than we in the teaching of this subject, to a greater advantage than across the line for the reasons just cited. The very labours of their educationists were on this committee. They availed themselves of the labours of former historical committees in various parts of the union. The chaotic condition of former history teaching was shown by a study made by Professor Munroe of Columbia University under the auspices of the Association of the Middle States and Maryland, embracing the curricula of fifty cities, among which no agreement existed as to method, material, or allotted time. We, in Nova Scotia, should not hesitate to learn from our neighbors. Truth in educational methods has no nationality. This Committee of Eight spent two years before handing in this report, therefore it should have the greatest weight with Nova Scotians whose history, as related, runs parallel with their own.

We had our history schedule about complete for presentation to the Committee when we met with the above report and therefore we feel the more boldness in presenting our own, as it agrees with that report in the main outlines. We would therefore recommend that the teaching of History begin with Grade III, including the history of the section. Assign to Grade IV, the history of the County, including the stories, if they are procurable, of how the rivers, coast waters, villages and towns were named; and the biographical sketches of its chief men and the history of some contemporary event within the memory of the class. The building of any well known structure within the memory of the class may aid the teacher to inculcate the idea of time and lay an intelligent foundation for the proper comprehension of dates. In the next grade the teacher can deal with some past or present phases of the history of the Province and so on in widening circles to Grade IX.

History, like charity, should begin at home, and its lessons should take the shape of stories from the lips of the teachers. History about their own home section will arouse the interest of the pupil at the beginning and if carried on and broadened from one grade to another will produce a class of people who really know the history of their own section, town, city and country. How much better to put into the hands, for example, of Halifax pupils, a biographical history of many of the old pioneer city fathers, their struggles, adventures and successes: men whose names are borne by families today all over the city and province. How interesting and how practical it would be! Every old street in Halifax has its history. The statesmen of George the

Third have their names stamped on many of the thoroughfares of our Capital, giving us at once a clue to their opening dates. How many of the school pupils are aware of any of it? What is true of Halifax is equally true of the smaller towns of the Province. If the history of these things were taught and foreign history relegated to a later day it might be a strong factor in inculcating a pride of country and race. And it would raise us in the estimation of our neighbors as well as in the estimation of ourselves. An intelligent respect is always felt for those who are thoroughly conversant with their local and provincial history. How easy it is for a neighboring nation like the United States to gain the allegiance of many Nova Scotians who go there, whose knowledge of their own country is of the most meagre character and whose memory of history study is some vague recollection of a few old French names. In many places in Howe's speeches and letters that statesman pointed out that this very want of a home pride in things Nova Scotian and British gave the Americans a great advantage. Every bit of local history is now being gathered there and taught in their schools, but our historic dead can sleep under nameless mounds as at Grand Pre and Louisburg, until the American sets us the example in our own land as he did in 1894, by raising the monument at Louisburg. If we care absolutely nothing about these things how can we expect our children to care? But would there not be some change if every bit of local history was preserved for us, if we were thoroughly trained in our home history? Is it not better, therefore, if we cannot take up both home and foreign history to leave the foreign for a more convenient season except such portions as touch upon our colonization?

And of home history none of it will cling to the memory of the young or be a greater incentive than the stories of our great men or the history of some important event just transpired in our midst, thus creating an interest in the past and in the present all focusing on our own land.

From De Monts to Joseph Howe and from Howe to William S. Fielding we can collect a grand array of historic names. If these be presented to the pupils in proper sequence there can be little doubt in the minds of any history committee that better results would be produced than at present and that order would arise out of chaos.

In making a program on the lines laid down in these introductory remarks, a difficulty at once presents itself; the difference between town and country schools; the manifold chances for advancement possessed by the one and denied to the other. The same difficulty crops up in every part of the curriculum; but it seemed to the sub-Committee that it was best for all concerned that the curriculum outlined should be as extensive and detailed as the highest graded schools could overtake in one school year, and let the country school overtake as much of it as their circumstances of time and number of teachers would permit. This detail could be worked out by the country teachers and their inspectors. New text books will be required of a biographic character. These should not be difficult of compilation, nor need we call for foreign assistance.

To present a faultless curriculum is impossible even by a body of experts, which we are not, for a series of grades all possessing equal facilities for study; but with our differing conditions of city, town and country, even to fairly satisfy is difficult. The schedule here presented is not meant to defy criticism, except to a certain extent on its underlying principles, and in these we confidently believe lies the only rescue of this important subject from the chaotic condition in which it exists to-day.

Finally we must take into consideration the conditions as they exist to-day. Have we in Nova Scotia a body of common school teachers who are possessed of that energy, ability and training necessary to carry on these history stories, draw these maps and collect and prepare this biographical material, without the assistance of a detailed program? The answer must be in the negative. It would be a miracle if we had such a body of teachers. Where could they learn such a system? Not in Nova Scotia. How many of them, think you, on a mere suggestion in the journal, would try this plan? Probably very few. It is human nature to cling with the most stubborn tenacity to the skirts of the past and if a custom, good or bad, have the sanction of a few generations there is no hope for a change in the adults, who will view with alarm any novel course taken by their progeny and shake their heads ominously about the good old times, "Illa antiquitas." How then are we to proceed? We would respectfully suggest to the committee that the proper course would be by educating the teachers along these lines at the Normal College; and also from the Education Office, by furnishing them with lists of helps, that is, the title and publishing houses of the needed books, or by publishing a detailed course of study and selling it as they do elsewhere. Since starting this

we came across the course of study for the Common Schools of Illinois, 1907, for sale to all sections and teachers at 35 cents per copy. Some of you may have seen it. To those who have not, we may state, that it does not go beyond Grade VIII., yet it is a book of nearly 300 pages. It has the work of every grade marked out to the last possible detail, not only for the year's work, but month by month for every subject in every grade; and so skilfully is it drawn up that it still leaves ample scope for the individuality of the teacher to have full play. It not only maps out the manner and course of procedure in each subject, but furnishes a time table for every grade for every day and for every hour of every school day throughout the school year; so that no time or effort is wasted in unsystematised methods of work at the hands of the new and oft times helpless beginner; and it is especially meant to aid not the city teacher but the rural. Take an illustration from their history schedule for sixth year, for just one month.

"FIRST MONTH."

COLUMBUS.—Birth; time and place. Boyhood; education, occupation. Manhood; travels, trials, theories, patrons, adventures, voyages, discoveries, honors and sufferings. Death. Reflections.

DE SOTO.—Ditto.

JOHN SMITH.—Ditto.

Then follows recommendations that teacher and pupil agree on the important features of the life studied; that they arrange these in proper order; and that each pupil write a short biographical sketch, using his own expression and power of illustration. AFTER CORRECTION these to be copied into a "composition book."

Then follows a suggestion as to Columbus, so that no teacher can give an excuse for not knowing just what to do. It is as follows:—

- |                      |                         |
|----------------------|-------------------------|
|                      | Place                   |
|                      | Date                    |
| 1. Birth . . . . .   | Education               |
|                      | Opportunities           |
| 2. Boyhood . . . . . | Occupations             |
|                      | Theory of Earth         |
|                      | Search for assistance   |
| COLUMBUS             | Patrons                 |
| 3. Manhood . . . . . | Voyages and discoveries |
|                      | Honors and sufferings   |
| 4. Death             |                         |
| 5. Reflections       |                         |

Compare this with the monotonous drill of our schools, forcing upon the minds of inquisitive, imitative and receptive youth, dry details of old kings and queens, long lists of drier dates, and driest of all, the thick sprinkling of centuries of parliamentary and legislative rubbish. And then we wonder that they choke and gag at history, as we beat about their heads this dust of the ages.

We need not refer further to the above mentioned course of study than quote it as an example of what is being done by our greatest rivals—the people who are decimating our population. It would be absolute folly to state that history study alone will keep people in Nova Scotia, if they can make more money elsewhere; but history study of our own sections, counties, towns, and cities, as viewed through the lives of the men who most advanced them, will surely arouse an interest in our own land that many of our young men today have not. The name of every Western State has a romantic halo about it to our youth, owing to the adventures of its pioneers, and the fact of its being away from home. But our pioneers had their adventures; let our youth hear of them and from the men who made the country, a larger knowledge of our own province, may lead many to look more closely into its possibilities, and cause many more to decide that Nova Scotia is not a land to forsake, but to build up. There is not a doubt that to-day such an awakening is taking place in Agriculture in Nova Scotia simply and purely through progressive Education. So may it be in other things. It is also folly to pretend that school methods, even of the wisest character, can accomplish great things in a little time. It is little the greatest can do, but our schools need our best efforts and

we should have them so directed that nothing be wasted. Now, even to risk a reprimand from the members of the Committee for the undue length of this introduction, we will again refer to the question of our ability to carry on successfully such a program as is being carried on to-day in progressive centres. The difficulty may be to get our teachers as a body to adopt the biographical method of teaching history and not to save hours of labor, drop into the old method of text book recitations. We should note, however, that the first year will be the hard year, as the stories, once prepared, can be used for the incoming classes, and biographical text books will ease and guide the teacher. But if we have no such teachers, or if we have them in rare numbers, a beginning may be difficult and success for some years be doubtful. As previously stated, such a system as here laid down means a new set of text books—it means the supplying of Grade helps to teachers in all our sections.

Perhaps it would be better at the start to compromise somewhat, and, if the system as here presented, the system followed by the American schools, is found to be beyond the reach of many of our sections, we submit it to the Committee if it would not be wise to insert the thin edge of this biographical wedge in such sections as can afford the change and have teachers of sufficient skill to carry it on after it has been introduced. We must start somehow and somewhere.

If you consider this system the correct system of history teaching, but cannot see your way to adopt it in any sense, we may as well veil our position in silence. But if it can be begun, even in the smallest way, would it not be wise to make a beginning, however small. This curriculum submitted by the sub-committee, we are painfully aware, needs much overhauling and correcting. Its main purpose, however, is suggestive. Neither are we in despair but that teachers can be procured who will make this method a reality. Our Normal School can train our teachers well to conduct story history lessons. They probably do so now, as we are not so conceited as to imagine we are introducing any method of which every member of the Committee has not heard as well as ourselves. The Normal School can also, as well as the Education Office, furnish their out-going teachers, before they get the fever of "Westward Ho," with the titles and publishing houses of all the needed helps. Whether or no you agree to the suggestions here submitted we believe that after a discussion, the adoption of some needed changes will result, that may breathe life into this important branch of our School curriculum.

#### HISTORY. GRADES I. TO VIII. INCLUSIVE.

GRADE.	MATERIAL.	METHODS.
Grade III.	History of Section.	Stories by teacher, oral reproductions; question by teacher about the oldest houses—who lived in them? Are there any descendants among the pupils? etc.  Gathering of other information by the pupils and teacher;  Construction of a map of section; the use of dates impressed in Grades III. or IV. by calculating back from the present time elapsed since the happening of some noteworthy event in section with- in the memory of the class.
Grade IV.	History of the County.  Biographies of leading county men of the past with pictures if procurable.  Reference book for teachers: The County History.	Stories by teacher; oral reproductions. Government, illustrated by School Board and its Executive Officer—the teacher: thus enabling the pupil to take in intelligently the idea of county or town governments and taxes.  Draw a county map illustrating the history, and have pupils copy the same until they have it in memory.



Grade V.

Biographies of leading discoverers or men prominent in early Nova Scotia and North American history beginning with Lief Ericson, Columbus and ending with Wolfe and Treaty of Paris, 1763.

References for teacher: Histories of England and France; Higginson's American Explorer; the first three English books on America by Richard Eden; and the History of Acadie (Hannay). or similar books.

Stories by teacher on the makers of early American and Nova Scotian history, taking in as many biographies as time will permit, including anecdotes of birthplace, boyhood, etc., giving any adventurous or romantic feature full play. Many an unimportant anecdote as viewed historically may however, be most interesting to the pupil; use pictures of these men; pictures often being the best modes of beginning a story.

Assign short lessons for reading aloud in School or to be learned at home, from biographical text-book, on occasions of review.

Introduce Indian stories in connection with European settlers, as in Order of Good Times.

Grade VI.

Biographies of chief men of Early Canadian History (not already touched upon) such as Cartier, Champlain, etc., to 1763.

Biographies of men instrumental in forming the various Nova Scotian Counties (not already mentioned), or lacking biographical information, the stories of the County Town Settlements.

Cape Breton's fisheries and coal mines.

Some leading feature in history of Nova Scotia from 1758, to Howe's time.

Teacher's References: County Histories and Journals of early explorers; Browne's History of Cape Breton.

Selected portions of English History from Henry VII. to Queen Ann, and France under Louis XIV., showing conditions in Europe leading to interest in America.

Prepared stories or readings by teacher and pupils about Nova Scotia colonizations not touched upon in Grade V. For example:

About settlement of Cape Breton from Western Scotland

About threefold division of Cape Breton, among English, French and Spanish for fishing purposes, the respective harbors being St. Ann's, Louisburg and Baie Des Espagnols (Sydney); Early Mining. Stories and Adventures of Denys and others.

About Settlement of the vacated Acadian lands after 1775.

About The French at Digby.

About Germans at Lunenburg.

About English at Queens.

About Loyalists at Shelburne.

About Scotch at Pictou, and so on, subject to time at disposal of teacher, leaving time for oral and written reviews at end of term; successive reviewing during term to be avoided as much as possible by introduction of anecdotes in connection with men which can be easily remembered.

Foreign history presented in prepared stories by teacher.

Changes suggested at teachers' convention 1908 Drop out all political History.

Suggestions that early History of England be introduced

Grade VII.

Biographies of Howe, Johnson and others, comprising the group for and against Responsible Government, and those for and against the Union of 1867.

The Beginnings of Railways in Nova Scotia, Feb 8, 1855, etc.

Biographical Canadian History from 1763-1867.

Stories and readings by pupils and teacher; assignments and recitations of home lessons from Nova Scotia and Canadian history texts (Biographical mostly).

Maps used as in previous grades.

Prepared lessons on English History as showing how the War of 1812 grew out of the Napoleonic wars, and its effect on Nova Scotia.

<p>Introduce some early portions of History of England with some selected portions of English and European History touching directly or indirectly on Canada during the time of the Georges.</p>	<p>Text-book assignments and recitations, oral and written.</p>
<p>Grade VIII. Recent events of Nova Scotian History from 1867—1910 gathered as far as possible from biographies of such leading men as Dawson, Forrester, Tupper, Thompson, Fielding Murray and others prominent in Political, Industrial and Educational life.</p>	<p>Readings of selected portions of History, by teacher and pupils to be followed by talks.</p>
<p>Canadian History, touching on several leading Canadians, from 1867—1910 as Sir J. A. Macdonald, George Brown, Alexander Mackenzie and others.</p>	<p>Selected lessons, bringing out the social, industrial and political condition of England and showing the lines of struggle over the Reform Bills and Repeal of the Corn Laws; from biographies of Sir John Russell, Richard Cobden and John Bright.</p>
<p>English History, touching on the various reforms and wars of the times of William IV., Victoria and Edward VII., especially the History of the Boer War and Canada's connection therewith.</p>	<p>One or more lessons on Settlement of South Africa by English and Dutch, thus paving the way for an intelligent understanding of the Boer War and its probable results on Imperial Federation.</p>
<p>History of Railways in Canada and a continuation of Nova Scotia's Railway history.</p>	<p>Show that federations and combination of nations must lie in community of interests and not on sentiment.</p>
<p>Laurier, Chamberlain and Imperial Federation.</p>	

The above Schedule is, as we remarked in the body of the Introduction, mainly suggestive. The ground, for instance, gone over in Grade VIII should perhaps overlap into the first year with the introduction of more British History. That could be settled by some Committee. We are well aware that Educational matters cannot be set right by a torrent of words or the sounding of brassy paragraphs in the public ear. We hope we have not erred in this direction. We have presented to you, as faithfully as lay in our power, what is being done in progressive centres; and as some of the changes suggested are of a very radical character and mean the expenditure of considerable money, we thought that nothing that could possibly be said in reasonable space should be omitted.

#### ARITHMETIC.

Notes on the first four grades;—Teachers will observe from the work prescribed, that the object of the first four grades is to give a complete and thorough knowledge of the fundamental rules of Arithmetic, Addition, Subtraction, Multiplication and Division. *Accuracy* is the first and great essential and should be insisted upon from the beginning. The correct answer should be required at the first attempt—no second trial or guessing. Give the pupil sufficient time but insist upon an absolutely correct answer. When accuracy has been obtained, *rapidity* of work will come from continued and well directed practise.

Unless accuracy and rapidity in the fundamental rules are developed in these grades, the pupil will be handicapped throughout the whole course. No text-book should be used by the pupil in these grades.

## PROPOSED COURSE IN ARITHMETIC.

## GRADE I.

All fundamental operations with small numbers, giving particular attention to the addition table as far as  $9 \div 9$ , in both concrete and abstract numbers; accuracy to be insisted upon from the start.

## GRADE II.

As in Grade I. with further drill in Addition and Subtraction Tables. Multiplication Table as far as six times twelve. Concrete examples as well as *daily* drill in abstract numbers should be given to secure rapidity. Accuracy must *always* be insisted upon in *all* work.

## GRADE III.

Complete the Multiplication Table and apply it to multiplication and *Short* Division with practical exercises. Notation and numeration exercises to thousands.

Continued *daily* drill in Addition and Subtraction.

## GRADE IV.

Long Division and the practical application of the fundamental rules as found in the first sixty pages of Part I. of prescribed Arithmetic. Further examples should be given by the teacher based on problems likely to be met by the pupil in his home life.

Avoirdupois Table and measures of capacity learned. Idea of simple fractions developed. Notation and numeration continued.

Notes on first four grades. The chief aim of the work in these grades is to develop accuracy and rapidity in the four fundamental rules. As stated above *Accuracy* should be the first consideration, and possibly, in the first two grades the only one. In these grades the pupil should get his examples from the teacher, or, at any rate, if a book be given him it should not contain answers.

## GRADE V.

Part I. Arithmetic completed with further examples of a similar kind given by the teacher, simple oral lessons on fractions and decimals, especially in the latter examples in Canadian Money. Linear Table learned. *Short daily* drill in addition and other fundamental rules.

The statements of the Unitary Method are explanatory and should be thus used, that is, when the pupil once understands the problem the lengthy statement should not *always* be asked for.

## GRADE VI.

Factors, Multiples, Fractions (Vulgar and Decimal) as in Part II. Arithmetic to page 60. Further examples on Tables already learned. Continued drill on fundamental rules.

## GRADE VII.

Common weights and measures as in Part II. Arithmetic pages 73 to 84, omitting Metric System problems. Square root and mensuration as in Part III. Arithmetic omitting cone, pyramid, cylinder and sphere.

First two chapters of Morton's Mechanical Drawing.

## GRADE VIII.

Part III. Arithmetic completed (omitting Ex I to VII. and XLVIII). Simple problems on metric system.

Commercial forms:—Receipts, Notes of Hand, Cheques, Drafts, etc., simple business definitions, simple business correspondence, making out and receipting of bills, modes of remitting money, keeping of a cash book, keeping of a simple account in Day Book-Ledger form.

Morton's Mechanical Drawing, Chapters III and IV.

Algebra:—Evaluation of formulæ, and easy simple equations with application of the same to Arithmetical problems.

G. K. BUTLER.

### PROVISIONAL NATURE STUDY COURSE.

This course of study is meant to be suggestive, not prescriptive. It probably contains more than can be done in any school in the time allowed for Nature-Study. It is expected that the teacher will attempt only that part of the course which can be done with profit in his, or her school. Some teachers may know of better topics for their schools than those suggested here. If so, they are advised to use such topics. In any case, in the lower grades at least, the interest of the children and the availability of the material should chiefly determine the choice of the topics. The teacher should make a study of those things in nature with which the children are surrounded, and should be continually on the watch for those objects and changes in nature which can most profitably be used for educational purposes in the school work. He, or she, should also be well acquainted with the children of the school, to know what they are interested in as shown by their conversations and by what they do, and also what they are capable of being interested in as shown by the way they respond to suggestions by the teacher. This knowledge of the child and its surroundings will suggest the best topics and order of topics for nature-study.

The aim of nature-study is to give an interest in, and an acquaintance with the common things and processes of nature; to develop the habit of investigation, and incidentally to give useful information. The imparting of information being incidental to awakening an interest and developing the habit of investigation, it follows that the child's attitude toward the work should be always sympathetic. Nature study should never be a task, and the work should be stopped before there is any fatigue. The inquiring mind, so essential to any work of investigation, can be greatly encouraged by the setting and solving of simple problems on the nature-study work. It is better if these are the children's own problems, not the teacher's. The first and most common problem with reference to a natural object is: What is it? From the solution of this the child often goes, or can be led to the problem: What is it for? or, what does it do? and how does it do it? As these problems are solved new ones will arise or may be suggested by the teacher. It is a sign that good nature-study work is being done as long as the pupils are solving problems with reference to the materials before them, or, in other words, investigating.

"Whenever the comparative method can be employed, its use is strongly recommended. Comparison includes contrast,—that is, the observation of differences as well as of similarities. In objects that are alike, interest is excited by points of difference; and conversely in unlike objects by the points of similarity.\* \* \* \* The dog is suggested as an object of study, but it is easier and more effective to make a nature-study lesson of the dog in comparison with the cat than of either alone. \* \* \* Observing the differences in the ways in which the horse and the cow eat grass in the pasture means more than twice as much training to the child as observing how either one eats alone. One reason for this is that paying attention to the differences is pretty sure to cause the observer to wonder about their causes." DEARNESS.

Teachers who have difficulty in finding time for nature-study can overcome this in a measure by having some of the work incidental and informal, and by making correlations with the other school work. Suggestions may be made to the pupils for observations out of school hours, or problems (not tasks) set for solution at home. In and around the school there should always be objects of interest for observation, such as plants in flower pots, window boxes or gardens; insects in breeding cages,

living things in aquariums, etc. Collections of natural objects may be made by the children, and informal talks given on these by the teacher with a view to awakening an interest in nature and starting the children looking for things in their surroundings. In teaching language, written or oral, drawing, number work, etc., correlations with nature-study will add to the value of the teaching in these subjects and time will be gained for nature-study.

Nature-study is always from objects, never from books, notes, or telling. "It is natural study, that is, studying by natural methods." The method of nature-study may be, and often is, used in teaching the other subjects, and it is then that the best teaching is done, for the nature-study method is the one pre-eminently suited to the Common school.

GRADE I.

**PLANTS.**—Flowering plants such as golden rod, aster, burdock, dandelion, tulip, and pansy. Recognition and names of flowers. The whole plant—root, stem, leaves, color, odor. Planting a seed, as a nasturtium. Watching and caring for the plant. Structure of such seeds as dandelion, maple and burdock observed. Coloration and falling of leaves.

**BUDS.**—Watching the unfolding of buds in the schoolroom, as horsechestnut, beech, lilac and willow.

**FRUITS.**—Apple, pear, plum, etc. Color, odor, taste, parts and uses.

**VEGETABLES.**—Potato, onion, carrot, turnip. Color, parts and uses.

**ANIMALS.**—Pet animals. Simple observations on such pets as cat and dog.

**INSECTS.**—Watch development of caterpillars in breeding cages. (A cage may be made of a pasteboard box covered with glass or netting.)

**BIRDS.**—Learn to see and hear them.

**NATURAL PHENOMENA.**—Daily observation of the weather recorded by the teacher in the class calendar.

GRADE II

**PLANTS.**—Learn to know the wild flowers found. Note the color, odor and home of the plant. Learn to know the trees, cones and leaves of evergreen. Planting a seed as a pansy, or starting a slip as a geranium. Watching and caring for the plant.

A few simple experiments in germination. The different ways in which seedlings come out of the ground. Parts of the seedlings—root, stem, leaves. Seed leaves: their behavior and uses. Watch development of buds in schoolroom. Planting a bulb as tulip, hyacinth, narcissus, onion, etc., in the garden or flower pot. Watching development of plant. Structure of such seeds as bidens, agrimony, ash, thistle, ragwort, with reference to means of dispersal.

**FRUITS AND VEGETABLES.**—As strawberry, raspberry, currant, grape, orange, etc., pea, bean, corn, tomato, etc.

**ANIMALS.**—Domestic animals of the farm. Simple observations on the cow, horse, sheep, etc.

**INSECTS.**—Watch development of caterpillars in cages. Collect cocoons and galls. Metamorphoses of a few large butterflies and moths.

**BIRDS.**—Watch for birds as they come and learn to know a few of them.

**NATURAL PHENOMENA.**—Steam, clouds, rain, dew, frost and snow. Weather chart

GRADE III.

**PLANTS.**—Learn to know wild flowers found. Learn to know the trees. Comparison of the forms of evergreen and deciduous trees. Parts of the flower as in tiger

lily. Use of pistil to bear seed. Stamen to bear pollen. Growing of plant from seed or slip, as sweet pea and fuchsia. Seed dispersal, by wind, by water and by animals. Study of one or two evergreens. Experiments in germination and planting of seeds. Opening of buds.

**ANIMALS.**—Common wild animals, as squirrel and rabbit.

**INSECTS.**—Insects in breeding cages. Aquarium life. Life history of cabbage butterfly, or a beetle.

**BIRDS.**—Watch for and identify birds as they come. Learn to know their songs and habits.

**NATURAL PHENOMENA.**—Steam, clouds, rain, dew, frost, snow. Weather chart.

#### GRADE IV.

**PLANTS.**—Learn to know the wild flowers found. Learn to know the trees, as spruce, fir, pines, ash, etc. Parts of flower, uses of the parts. Growing of plants. Experiments in germination and planting. Development of buds in schoolroom. Comparison of bulb with bud.

**ANIMALS.**—Comparative study of pet and domestic animals, as for example, the difference between the teeth of a dog and a cow, with the reasons therefor.

**INSECTS.** Insects in breeding cages. Collect cocoons and galls. Watch metamorphoses of conspicuous butterflies and moths. Life history of some common insects, as currant worm.

**BIRDS.**—Identification of birds by plumage and song. Learn their food, nests, and habits.

**NATURAL PHENOMENA.**—Evaporation, condensation. Simple lessons on soils. Learn to recognize the most common rocks and minerals of section. Learn a few conspicuous constellations and note their motion, as the Dipper, Orion and Taurus.

#### GRADE V.

**PLANTS.**—Learn to know the wild flowers, continued. Trees, their forms and uses. Begin a collection of different kinds of wood. Learn to know the weeds, as ragwort, sow thistle, wild carrot, etc. Parts of the flower and uses of the parts. Study of an easy family, as cruciferæ. Seed dispersal continued.

**ANIMALS.**—Toads, frogs, snakes, etc., habits and uses. Fish, forms, and uses of different parts of their bodies.

**INSECTS.**—Injurious and beneficial insects developed in breeding cages, as potato beetle and lady-bugs.

**BIRDS.**—Identification of birds by plumage and song. Learn habits of a few, as the common sparrows and note their use to man as weed destroyers.

**INORGANIC WORK.**—Keeping of weather chart. Experiments with the magnet. Compass. Learn a few constellations and planets, and note motions of the heavenly bodies. Common minerals. Study of candle flame. Experiments with oxygen and carbon-dioxide. Ventilation.

#### GRADE VI.

**PLANTS.**—Wild flowers, continued. Trees, their forms and uses. Collection of various kinds of woods. Collection of tree seeds. Starting a nursery of native trees from seed. Study of weeds continued, as knapweed, rattle box, and cadlock. Study of two or three easy families, as cruciferæ, leguminosæ, and rosace. Seed dispersal continued. Pot experiments in drainage and growth of plants. Work of roots and stems.

**ANIMALS.**—Adaptation of structure of different kinds of animals to their respective habits, as for example, the teeth of rodents, claws of climbing animals. Protective coloration of animals.

**INSECTS.**—Injurious and beneficial insects, as cutworm, tent caterpillar, brown-tailed moth, tussock moth, dragon fly, bee.

**BIRDS.**—Identification and life. Usefulness to man as companions. As weed and insect destroyers.

**INORGANIC.**—Movements of sun, moon, planets and constellations. Minerals and rocks. Experiments with soil. Osmosis.

GRADE VII.

**PLANTS.**—Study of wild flowers, continued. Further study of weeds, annual, biennial and perennial. Methods of eradication. Study of easy plant families, as leguminosae, rosaceae, cucurbitaceae and ranunculaceae. Pollination. Structure of flower with reference to insect pollination. Work of bees observed. An acquaintance with mushrooms, bracket fungi, puffballs, horsetails, and ferns to extend the meaning of plant life. Plant store houses of food with starch test. Work of leaves. Grafting and budding.

**ANIMALS.**—Study of animals in relation to man. Animals useful to man, as cow, horse, sheep, toad, etc. Animals harmful to man, as rat, mouse, mink, weasel, skunk, fox, etc. Visits to stock barns. Observation of leading types of farm animals.

**INSECTS.**—Life histories of injurious and beneficial insects, as orchard pests, insects injurious to field crops, insect parasites. Aquarium life, mosquito and caddice worm.

**BIRDS.**—Identification and life. Use to man of such birds as robin, crow, hawk, owl, etc.

**INORGANIC WORK.**—Such study of physical geography as can be carried on by the nature study method. Minerals and rocks of the section. Soil experiments. Osmosis. Chemistry of the air. Study of flame. Experiments with oxygen and carbon dioxide. Experiments with air and water.

GRADE VIII.

**PLANTS.**—Identification of wild flowers to complete phenological observation. Study of cross and longitudinal sections of a piece of wood. Pith, bark, medullary rays. Cross sections of stems of bean and corn. Noxious weeds; their characters and eradication. Study of families, as heath, violet, pink, figwort, evening primrose and thistle families. Flowers in relation to insect pollination, as Mayflower, snapdragon, pansy, etc. Experiments to show the effects of seed selection and action of different fertilizers.

**ANIMALS.**—As in grade VII., continued.

**INSECTS.**—Life histories of injurious and beneficial insects of section. Methods of treatment.

**BIRDS.**—Knowledge of the lives and uses of birds to man.

**INORGANIC WORK.**—Work of grade VII., continued. The making and use of the thermometer, barometer and rain gauge. Simple experiments in electricity and magnetism.

USEFUL BOOKS FOR THE TEACHER.

- First Studies in Plant Life, by Atkinson. Ginn & Co. 60 cents.  
 Stories of Insect Life, by Weed. Ginn & Co. First and second series. 30 cents each.

Bird Neighbors, Neltje Blanchan. Doubleday, Page & Co. \$2.00

The Nature Study Course, Dearness. Copp, Clark & Co. 60 cents.

### HYGIENE AND TEMPERANCE.

In view of the omission from the High School Program of the course in physiology and hygiene, it is important that, in the common school, instruction in the care of the body, the laws of health, and the evil effects of using alcohol and tobacco, be made as effective as possible. To accomplish the best results it is necessary that, besides formal instruction,

- (a) The school should at all times exemplify in the person of the teacher habits of scrupulous cleanliness, of tidiness of hair and apparel, of easy movement posture, and manner.
- (b) The school authorities should provide for the regular and frequent cleaning of the rooms.
- (c) The teacher should manifest a constant concern for the personal comfort of the pupils, the proper heating and ventilation of the school-room, the supply of fresh water, the cleanly habits of the pupils, their frequent refreshment by means of recesses and physical exercises, their games, their gait and posture.

In the first four grades no formal instruction is needed. Some knowledge of the human body may be incidental to the "nature" work of those grades; but the teacher whose personal habits and management of the school are properly influenced by an acquaintance with hygienic principles, is measurably safe in omitting in those grades everything of the nature of laws of health, trusting entirely to a few rules of health pertaining to cleanliness, fresh air, sleep, the use and care of the teeth, posture and movement.

The teacher should know that restlessness and changefulness of interest are the normal condition of the child in waking hours, and should, in accordance with this fact, limit the duration of periods devoted to sitting still, or to any one task. She should in all classes endeavour to note the approach of fatigue, which is, in general, indicated by the falling interest of the average pupil. She should be conversant, with devices for restoring interest and banishing fatigue through change of occupation, through free and vigorous physical exercises, and through short intervals of unsupervised freedom. In general, it is expedient for her to have the pupils understand each new procedure adopted for their comfort, interest, and contentment. In no long time, what was merely a rule will come to be understood as a law; and, by the recognition of law as the basis of rules of health and of life, the pupil will profit not only physically but morally. A great point is, indeed, made when the teacher has thus convinced her pupils of her genuine and intelligent interest in their physical well-being; for, having once gained their confidence and good-will, she need have little fear of committing them to any reasonable task.

The requirements of our Provincial Statutes make it necessary to put "The Health Reader" into the hands of the pupils of the upper four grades. There is, we regret to note, ample evidence of the unintelligent use of this book, which, great as are its merits as a reader, lends itself to mindless repetition, and to the worst forms of abuse of the question-and-answer method. A partial corrective may be obtained, we believe, by setting out in detail a list of topics for each of the upper grades, these topics to follow a different order and treatment from that given in the Health Reader; and by using the latter as a book of reference and a reader,—the use for which its title would seem to intend it.

The true purpose of lessons in hygiene and temperance is to "enforce" upon the individual the facts and principles involved. It is difficult to believe that the time of the pupils is well spent in learning book facts about the teeth and the skin, unless the teacher uses her best endeavors to promote the use of tooth-brush and tub. And so with every principle and practice dealt with in the text-book. Right conduct in the essentials of hygiene is the real end; and the method of instruction, wherever possible, should be identical with that in nature-study.



For example, the phenomena of heart-beats, artery-pulsations, increased rapidity of pulse after vigorous exercise, flushed face, bleeding and bandaging, are easily observable by children, and should form the data for a first-hand study of the heart and the circulatory system. Similar treatment is easily applicable to the study of the teeth, the lungs, the stomach, the phenomena of fatigue, sleep, colds; of the effects of sunshine, bad air, tobacco (especially if the school itself provides a "horrible example:") Rudimentary and common-place as the child's observation of these phenomena may be, it is of the highest importance for promoting his interest, and cultivating an inquiring attitude; and we have little faith in instruction that proceeds by any other course. The place of the Health Reader in each lesson is posterior, not anterior to the study we have above indicated, and its usefulness will prove to be commensurate with the effectiveness of the preceding lessons. Such lessons are "nature-lessons," and they should, as indicated in the present course of study, be permitted to supplant from time to time the usual "nature-lesson."

We would point out here that the Health Readers omit to explain the nature of germ-action, of disease, and of simple preventive measures. Lessons on these topics ought to be comprised in the outline of work for the upper grades, germ-action being easily illustrated in the lessons on plant life. A few suggestions for lessons in first aids to the injured we would also recommend adding to the outline.

To recapitulate we would recommend

- (1) The setting out of topics for study in each grade,
- (2) Outlining two or three lessons or lesson-plans to illustrate method,
- (3) Including in the topics those of disease and prevention with special reference to tuberculosis and first aids to injured and to drowned.
- (4) Recommended more stress be laid upon the teaching of (a) effects of alcohol and narcotics contained in patent medicines, (b) the moral and economic aspects of temperance.

### PHYSICAL EXERCISES.

A system of physical exercises for children is at present being introduced into the public schools. The exercises are fully described in the text and illustrated by diagrams. No exception can be taken to the exercises, as they are the ones recommended by the English Board of Education. It will remain for the Education Department, by a few brief notes, to instruct the teacher in the choice of exercises best suited to young children, and to explain the peculiar effects and value of certain classes of exercise.

### MUSIC.

Some purposeful treatment of musical instruction and singing we would recommend as needful. Owing to the continual changing of teachers, the unmusical alternating with the musical, the development of musical knowledge, and of the ability to sing at sight is discouragingly slow. The ubiquity of the reed-organ and the piano rendered sight-singing less essential than formerly, and has obscured its value to the eyes of those who cannot play some instrument. Teachers who cannot sing at sight cannot teach either tonic sol-fa or staff, and a mistaken notion prevails that such teachers are justified in giving only a perfunctory attention to the singing of the school. Means should be taken to correct this fallacy. Well conducted expressive singing "by ear" may exceed in value the musical exercises of some schools where sight-singing is taught. Singing, it should be made plain to the teacher, is one of the few avenues for the child's emotional expression in school, (the teacher has others); and, for the well-balanced development of the child, emotional, no less than intellectual experiences should be provided. "These conditions are satisfied in a high degree by national or folk songs, which are the expression in the idiom of the people, of their joys and sorrows, their unaffected patriotism, their zest for sport, and the simple pleasures of a country life. Such music is the early and spontaneous uprising of artistic power in a nation, and the ground on which all national music is built up; folk-songs are the true classics of a people, and their survival, so often by tradition alone, proves that their appeal is direct and lasting."

The important source of supply of teachers competent to give instruction in sight-singing is the Provincial Normal School. For these no detailed instruction ought to be necessary; but there is a fair proportion of untrained teachers who have musical feeling and who are competent to teach songs by rote, and these should be encouraged and aided by a few brief instructions. Two matters appear to us as especially worthy of treatment;

- (a) The proper use of the voice in singing.
- (b) The choice of suitable and worthy songs.

In dealing with the use of the voice, instructions should be emphatic, to see to it first that children use their singing-voice or "head" register, (the use of the "head" register is easily ensured by the child's singing up the scale in the "chest" register until the voice breaks, and continuing his singing in the "head" notes which ascend from there); secondly that pupils learn each year a half-dozen or more good songs. Our recommendations in respect of these two matters spring from the well known facts that the use of the "chest" register in singing leads to shouting and to straining of the voice, to the permanent injury of the vocal organs; and that the school songs of to-day are distinctly meaner both in music and in words than they ought to be.

Besides having a little sheaf of songs of Canadian origin, we Canadians have a proper inheritance in the ancient hymns of the Church, in the Christmas Carols, in the national and folk songs of England, Ireland, Scotland, and France; and it is a thousand pities that our children should not be learning and singing these in school and out, instead of contenting themselves with characterless songs from American so-called "School Song" books, and scraps of contemptible ballads gleaned from vaudeville. For the upper five grades of the common school there should be no great difficulty in selecting good songs, and such songs, as well as being precious in melody and in literary quality, will often associate themselves with our common religious and moral experiences, or with historical and geographical incident. Consider, for example, such Christmas songs as "It Came Upon a Midnight Clear," "We Three Kings of Orient Are," ancient hymns like "Conquering Kings their Titles Take," "The Strife is O'er, the Battle Won," "O Come, all ye Faithful;" songs associated with our past and the countries of our forefathers, such as "Flowers of the Forest," "Caller Herrin'," "Tara's Hall," "She is Far from the Land," "Rule Britannia," national hymns, as those of France, Germany, Russia, Denmark; Canadian songs, such as the stately "O Canada," which was sung with effect at the Quebec Tercentenary, and "A Canadian Boat Song." The English "Suggestions to Teachers" lists some two hundred national songs suitable for the common school, and most of them are accessible in music books universally available or are printed in penny sheets.

In the lower departments of fully graded schools there is need of songs within the musical capacity of infants, and a little book of such songs, comprising a few "action-songs," it would, we think, be well to select for recommendation to primary teachers.

#### WRITING.

Children will in time learn to write somehow, no matter how poor the instruction, and some may even learn to write well with a minimum of teaching. Undoubtedly, all normal children can learn and will learn to be good penmen if their instruction is of that sort that begins right and continues right. The pedagogy of writing is an easy subject to master, and it is inexcusable in a teacher to be content with the penmanship of her pupils unless it is at all times neat and legible, and unless the progress of her an increase of fluency.

Neatness in writing proceeds from uniformity, chiefly uniformity of height and slant; from a well-kept margin, and from cleanliness.

Legibility, while partly due to the distinct fashioning of the letters, is dependant also upon uniformity of height and slope.

Fluency comes from well-directed practice (which is an easy thing to say), and it is just how and when to accomplish this that the teacher is often ignorant. Uniformity and legibility are qualities which persistent watchfulness will secure; but fluency will be secured only at the expense of some intelligent effort on the part of the teacher. Any teacher who will study a little penman's manual like McIntyre's "Guide" will easily learn to administer the exercises calculated to render penmanship fluent. The most

conspicuous omission on the part of our teachers is that of requiring frequent writing-exercises on loose practice-paper—exercises in tracing scrolls, spirals, m's, circles, loops, parallel lines, etc., by wrist and whole-arm as well as by finger movement.

To do the work properly, the teacher must not trust to distributing copy-books and allowing pupils to write at will and without instruction, suggestion, correction. Instruction, too, must be individual as well as to the whole class, for in the same grade there may be pupils of various degrees of proficiency.

Specific and systematic instruction in the teaching of writing is, we think, especially needed by teachers of the first four grades. Learning to make a letter is a somewhat complex feat. First, the form of the letter must be conceived, and to aid in visualizing it various devices are practised: for example, the teacher traces and retraces it on the board; or the pupil traces it on dotted lines. Direction of path in forming the letter must be noted. Then the muscular coordinations required to trace or to write the letter must be practised until they are automatic. In the meanwhile the position of pupil, of arm, of book, of pencil, must be gradually brought to conform with correct method, and reduced to a fixed habit. To secure this a short formal lesson must be given each day. Method and watchfulness in the first four years will leave no essentials to be dealt with later, but for a teacher to set out with the comfortable doctrine that things will come right of themselves, is intolerable. Things may come right, but in the meantime the child may have expended undue time and energy upon this merely mechanical task; or he may have left school, and, through deficient penmanship, may have forfeited golden opportunities.

As soon as convenient the child should be shown how to make use of his powers of penmanship. Writing is not an end but a means, and this the child realizes to his great delight when he has been taught to write a note to parent, to Santa Claus, etc. A motive is now provided for doing his best, and this motive should be kept operative in subsequent exercises in correspondence, business forms, themes, etc., throughout the grades; for the execution of the written task presents a field for skill not only in composition, but in margining and spacing, and in the tricks of penmanship, and the pupil should grow to regard as discreditably a written production lacking in form.

In this brief study we have indicated the progressive stages of instruction in penmanship according to which a course for the eight grades must proceed.

#### HYGIENE AND TEMPERANCE.

SUGGESTED COURSES OF TEACHING IN HYGIENE AND TEMPERANCE FOR BOYS AND GIRLS IN THE PUBLIC ELEMENTARY SCHOOLS OF THE UNITED KINGDOM OF GREAT BRITAIN AND IRELAND. ISSUED BY THE COMMITTEE OF THE MEDICAL PROFESSION IN THE UNITED KINGDOM, CONSTITUTED TO PROMOTE THE TEACHING OF HYGIENE AND TEMPERANCE. CHAIRMAN SIR WILLIAM BROADBENT.

NOTE.—IT IS PROPOSED THAT ONE LESSON PER WEEK BE GIVEN.

(Slightly modified by Committee of Sixteen).

TOPICS SUITABLE FOR CHILDREN UP TO SEVEN YEARS OF AGE (GRADES I AND II., NOVA SCOTIA).

To be gradually introduced in Sections according to age. (Oral instruction with observation. Book for Teachers' use adapted to such Instruction.)

POSITION.—Sitting erect and standing erect. Chest position. Drilling, marching and orderly self-controlled movements. Injuriousness of crooked or cramped posture in sitting or standing.

PLAYING.—Play necessary for children. Teach games and train to be fair, to avoid anger, selfishness and rudeness. Motion-songs and dances (open-air).

**SLEEPING.**—Sleep needed by animals, children, and everybody. Children need far more sleep than adults because their bodies have to grow very fast. Going to bed early.

**EATING.**—What animals eat. What children should and should not eat. Why not between meals. The teeth and their care detail.

**DRINKING.**—Water and milk good drinks. Tea and coffee not good for children. The juice of ripe fruits healthful in the fruit, but not after being pressed out and allowed to stand. Beer, wine, and cider unwholesome and injurious drinks. Beer renders people drowsy and less fit for work. The waterpail and cup and rinser; the fountain-top; fresh water and covered pail.

**CLOTHING.**—Of birds and other animals; of children. Summer and winter, damp and dry clothing.

**CLEANLINESS.**—Soap, water and individual towels. Care of hair, teeth, nails, nose, feet, clothing, and desk. Use of door mat.

**GROWTH.**—Helps to growth; wholesome food, work, play, sleep, fresh air and sunshine. Hindrances to growth such as alcoholic drinks and tobacco.

Sweeping of schoolrooms; dust-banes, oils, etc.

Specify some cheap and effective home-made tooth-wash or paste and encourage its use.

**THE BODY AS A WHOLE.**—Trunk, limbs, and head. Relation of correct position to a well-formed body.

**THE NOSE.**—Use of handkerchiefs. Colds from breathing impure air.

**THE ARMS AND HANDS.**—Parts of the arm. Parts, uses, and care of the hand.

**LEGS AND FEET.**—Uses and parts of the leg. Parts of the feet. Proper dress and care of the feet. Strong, swift feet.

**THE SENSES.**—Sight: use, guard against close work and poor light. Hearing: training in quick and accurate hearing; how injured. Also, exercises in quick and accurate seeing, tested by showing objects, arrangements, etc., by visualizing diagrams on black-board, etc.

**TOUCH.**—Where the sense of touch is located. Distinguish between objects that are hard, soft, rough, smooth, etc.

**TABLE MANNERS.**—As in American Syllabus, Second year.

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TOPICS SUITABLE FOR CHILDREN OF ABOUT EIGHT YEARS OF AGE (GRADE III, NOVA SCOTIA).

(Oral Instructions, Diagrams and Simple Experiments. Book for Teachers' use adapted to such Instruction.)

1. **PURE AIR AND BREATHING.**—How air gets to the lungs. Why air of rooms needs to be changed often. Importance of fresh air in the bedroom during the night. The airing of bedrooms in the morning.

2. **FOOD.** Need of food for growth, strength, warmth. Effects of eating too much or too often. Rules for eating. Proper choice of food. Effect of too much meat. Nature's foods for the young. Materials which furnish these.

3.—**THE TEETH AND STOMACH.** Trace mouthful of food from plate to stomach. Importance of good teeth; of chewing food. Loss of saliva in chewing or smoking to-

bacco. Evils of spitting. The stomach and gastric juice. Work and rest for the stomach. Irritating effect of alcohol. Danger of giving alcohol to infants and children.

4. **DRINKS.** Water needed in considerable amount by the tissues. Proper choice of drinks; harmful drinks; drinks that injure the stomach; injurious effect of strong and stewed tea; danger that cider, beer, or wine drinking may create the desire for more. Self-control in eating and drinking.

5. **THE BONES.**—Explain care of bones. Why sit and stand erect. Difference between framework of the young and the old. Tobacco and alcoholic drinks liable to stunt growth of bones.

6. **THE MUSCLES.**—How the body moves. Difference between muscle and fat. Exercise and proper food strengthen, alcoholic drinks weaken muscle. Soldiers march better and navies work better without alcohol.

7. **TOBACCO AND CIGARETTE SMOKING IN YOUTH** hinder growth and healthy physical and mental development: contain nicotine and sometimes other harmful poisons.

TOPICS SUITABLE FOR CHILDREN ABOUT NINE YEARS OF AGE (GRADE IV, NOVA SCOTIA).

(Text-Books, adapted to grade, in hands of Pupils as additional source of information, Diagrams, Simple Experiments, and Oral Instruction as before.)

1. **THE FRAMEWORK.**—Why many pieces in human skeleton. *Different shapes of bones.* Animal and mineral matter in bones. Location of principal large bones. Joints; how held together. Effect of tight clothing or ill-fitting shoes.

2. **MUSCLES.**—How made up. How they move bones. Sizes and shapes. Tendency of beer to cause the storing of fat instead of the formation of muscle. Relation of muscle and fat to strength.

3. **EXERCISE.**—Good forms of indoor and outdoor exercise; why the latter is preferable; proper dress.

4. **RESPIRATION.**—Air as a purifier. The air passages. Air sacs of the lungs. Full, deep breathing. The advantages of well-developed lungs. How air is polluted. Airing living-rooms.

5. **CIRCULATION.**—Right and left sides of heart. Veins and arteries. Veins that can be seen. How the blood feeds the body. Need of good food to make good blood. The blood as an air carrier and a food carrier.

6. **THE BRAIN AND NERVES.**—Work of brain. How made strong and how rested. Spinal cord. Connection with legs, arms, etc. Alcohol benumbs brain and nerves, making them act more slowly and less accurately, and therefore preventing study. Self-control needed in life, power of alcohol to weaken self-control. Effects of tobacco on the growth of the body, on the moral habits of children.

7. **THE SENSES.**—Show that sense organs do not see, hear, taste, touch, or smell, but are only avenues to or instruments of the mind. Continue training of senses.

8. **THE SKIN.**—The skin a garment; why it does not wear out. Work of the skin. Oil and sweat glands. Danger of cooling off too quickly. Bathing as a preventive of taking cold. Clothing: proper fit, disposal of weight, protection for legs and feet. Injurious effect of alcohol in dilating the vessels of the skin, thus lowering bodily temperature and rendering the person more prone to disease.

TOPICS SUITABLE FOR CHILDREN OF TEN AND ELEVEN YEARS OF AGE (GRADES V AND VI NOVA SCOTIA.)

(Text-Books, adapted to age, in hands of Pupils, supplemented by Diagrams, Simple Experiments, and Oral Instruction.)

**FOOD.**—Milk and eggs the most complete food. Need of cereal foods. The part of meat which makes muscle. Good value of cheap cuts of meat; of vegetables and fruit. Sources of common foods. *Best ways of preparing foods.* Why food should be attractively served. Danger from contaminated water and bad milk. How tea should be made. The cause of decay; Detail work of moulds and alcoholic ferments. Fermentation changes character of substances; use of yeast in bread-making. Sugar a food; alcohol a member of a group of poisonous substances. The nature of disease, especially germ-action; sterilization; antiseptics and sepsis. Bacteria, as illustrated by plant-diseases, yeast, etc. *Tuberculosis.* This repeated in VII and VIII.

**DIGESTION.**—The two sets of teeth. The cutting and grinding teeth. Bone-making food necessary for preserving the teeth. Tooth picks and tooth brushes. Dentist's care. Forming taste for healthful foods in childhood. The epiglottis and choking. The gullet. Changes in food in the stomach. The intestines and their blood vessels. How food is used by the muscles and other organs. Action of alcohol in retarding digestion.

**THE BLOOD.**—Appearances of blood under microscope. Work of its corpuscles. Clotting. Healthy blood necessary for strength of body and power of mind. Blood vessels. Capillaries. Meaning of circulation. Relation of good food, pure air, and exercise to healthy blood.

**THE HEART.**—Number of beats per minute. Heart like other muscles strengthened by regular exercise. Note effects of violent exercise on heart; Effects of fear; of sickness, especially of fever, where temperature rises. Effect on the heart of alcoholic drinks and tobacco. Alcohol produces irregularity of action, weakens heart.

**RESPIRATION.**—Need of air in the blood. Where the blood comes in contact with the air. Importance of breathing through the nose. "Adam's apple." Structure of windpipe and lungs. Elasticity of lungs. Change of air in air-sacs. Why air once breathed is unfit to be re-breathed. Development of the lungs by deep breathing, by "forced respiration," by exercise. Avoidance of constriction of chest by tight lacing and waist-bands. Simple methods of ventilation in the home and schoolroom. Why and how dust should be avoided.

**BODY HEAT.**—Source of body heat. Oxygen and burning. Fuel foods. Regulations of heat by skin. Relation of clothing to body heat. Effect of exercise on warmth. Effects of alcohol in dissipating heat which is valuable to the body.

**Excretion.** Skin a protection. Cause of corns. Skin as an aid in removal of waste. Sweat glands. Deposits left on skin in perspiration; consequent need of bathing. Alcohol enlarges capillaries of skin. Alcohol avoided by Arctic explorers—such as Dr. Nansen. Formation of hair and nails; use and care. Why the hair needs frequent washing. Proper time for washing and bathing. Importance of cleanliness of underclothing, and of bedding. Need of waste matter being properly expelled from the body and not retained. Cultivation of good habits in this respect.

**THE SENSES.**

1. **SIGHT.**—Pleasures derived from it. The eye: shape, bony socket and cushion of fat; muscles; tear-gland; lashes; lids; pupils. Danger in reading in too strong a light or by twilight, when lying down, or when the eyes smart. Avoidance of small type and poor paper. *Uncleanliness and "sore eyes," touching eyes with dirty fingers.* Danger from public wash-basins and public towels.

2. **HEARING.**—Outer parts of ears. Danger from blows or pulls. Protection from draughts and strong wind. Danger of picking ear.

3. **SMELL.**—Where the sense is located. Nerves of smell. Dependence of animals upon smell. Connection with taste. How affected by colds. Use in detection of foul air, gas, etc.

4. **TASTE.**—Importance to digestion of *savoriness* of foods. Note, especially the value of young vegetables, as contrasted with full-grown ones; of salad plants such as lettuce, cress, nasturtium; of young peas and young beets, green beans, etc. (In Nova Scotia, the taste for the really nice things that are so easily available in summer needs to be educated. In many parts, people know only potatoes and turnips. This topic can best be developed in the school and home gardening efforts). Use. Papillæ of tongue. Nerves of taste. By what affected. How dulled.

5. **TOUCH.**—Nerves in skin. Where touch is most delicate. Why delicacy of touch is desirable and necessary for work. Such delicacy impaired by alcohol.

**THE NERVOUS SYSTEM.**—The brain as a receiver and director of messages. Cerebellum and motion. Cerebrum, the organ of thought. Relation of attention and clear thinking to brain power. Importance of rest and sleep. Alcohol weakens power to think, to recognize warnings of the senses, and to take proper precautions against danger. Alcohol the cause of many accidents on land and sea.

TOPICS SUITABLE FOR CHILDREN OF TWELVE TO FOURTEEN YEARS OF AGE (GRADES VII AND VIII, NOVA SCOTIA).

(Text-Books, adapted to grade, in the hands of Pupils supplemented by Lectures, Diagrams, Models, and Experiments).

1. **PLANT PHYSIOLOGY.**—Sprouting and growth of plants; necessary conditions. Food stored in seed. Plant respiration, oxidation, and work. Parts, structure, organs of the seed. Plant digestion. *Plant and human physiology compared.* Cells. Tissues. This is already down in the Nature Study Course. Explain Organs. Systems. Health of the cells. Effect of alcohol on plant life.

2. **FRAMEWORK.**—Vertebral column the axis of the body. Relative position of axis in man and animals. Correspondence of leg and arm bones. Purpose of elastic cartilage in spine. *The shaft, cancellous tissue, red and yellow marrow of bones;* soft bones of children. Joints; hinge, ball and socket joints.

3. **MUSCLES.**—Voluntary and involuntary. The stronger the muscles, the more work accomplished. Alcohol decreases muscular power and consequent working ability. Beer, wine, and cider tend to lessen precision of muscular movements. How this has been proved by experience and laboratory experiments.

4. **RESPIRATION.**—Breathing organs of land and water animals. Nasal passages, pharynx, vocal cords, trachea, lung structure. Pulmonary circulation. Respiratory movements of diaphragm and chest walls. Chest and abdominal breathing. Voice: how produced; its training. Results of insufficient ventilation of rooms. Causes contributing to disease of air-passages and lungs; over-crowded, poorly-ventilated houses, damp or sunless rooms, insufficient food and clothing, lack of out-door exercise. Effect of alcoholic drinks, depressing vitality and causing proneness to lung disease.

5. **CIRCULATION.**—Valves and structure of right and left side of heart. Valves in veins. Wounds. Methods of checking bleeding. Nose-bleeding also, how checked. Change in heart structure caused by beer and other alcoholic drinks. "Tobacco heart."

6. **THE DIGESTIVE SYSTEM.**—The alimentary canal: parts, structure, and processes; glands, and digestive properties of their secretions.

**HYGIENE OF DIGESTION.**—Amount of food: as affected by age, activity, occupation, climate, etc. Preparation of food; reasons for cooking. Importance of regularity and moderation in eating; of careful mastication.

**ABSORPTION.**—Of fat, albumen, sugar. Storing of sugar, of fat. Use made of proteid matter.

**NUTRITION.**—What it includes; composition, digestion, and assimilation of foods. Definition of a food. Classes of foods: nitrogenous, or albuminous, starchy, fat, and mineral; what each supplies to the body. Food material in cereals, vegetables, fruit, meat, milk, and eggs. Unwholesome foods: indigestible food; unripe, over-ripe, or decayed fruit, stale vegetables and meats; adulterated foods; injurious drinks. Principles of selection of food.

**BEVERAGES.**—*Water*: forms found in Nature; necessity for water in the body; kinds: spring, well, rain, river, salt, mineral, hard, soft, impure; principal sources of supply; and dangers of drainage, especially in gravelly soils with clay bottom, where wells are very easily contaminated; rain, wells, springs, rivers, lakes; importance of pure water and pure ice supplies. *Tea and Coffee*: sources, properties. *Nourishing drinks*: milk, chocolate, cocoa, and cereal drinks; when most useful. *Non-alcoholic refreshing drinks*: lemonade, orangeade, these acid drinks, it should be noted, should not be drunk as accompaniments to starchy foods, unfermented fruit juices, fruit syrups. *Alcoholic drinks*: why not classed as foods; effect upon digestion; upon other functions of the body.

**EXCRETION.**—How waste materials are formed in the body. Organs that remove waste; skin, lungs, kidneys, liver, and large intestine. Importance, size and location of the kidneys; connection with circulation; separation of waste. How the liver removes waste. Hygiene of liver and kidneys: how affected by alcoholic drinks.

7. **THE NERVOUS SYSTEM.**—Harmonious action of organs. Brain the central controlling organ. Co-operation of nerves, spinal cord, and ganglia. The sympathetic nervous system. Reflex action. Habit. Narcotics; alcoholic drinks, tobacco, opium, effects upon the nervous system; dangers of moderate use. The selfishness and expense of the tobacco habit. Thirst induced by tobacco may lead to the habit of drinking

First aids to injured, to drowned, to fainting persons.

Nature of disease, especially germ-disease, preventives; symptoms.

#### ADDITIONAL SUGGESTIONS.

*Writing.* From the second or third grades insist on arm-movements (i. e. the movement upon the pad of muscle on the forearm). During the period in which the child is learning to fix the shapes of the letters, no care need be taken as to what movement he uses in so doing. There is no good reason why the copy-book should not be used; it is of considerable value in providing model forms for the letters, and more height. There its value ends. Fluency or freedom of movement will not be acquired through copy-book use. The eye must be with the pen if the writing is to be rapid and free, so, practice-paper, loose scraps, wrapping paper and lead-pencils, are the materials for practice for fluency.

The arm-movements will achieve quicker results by following some system. At least, there are about ten units of form out of which to construct our small letters, and these units ought to be practised, especially in rhythmic fashion.

In the arm movement the radius of activity of the pen-point is not great, and the teacher should not ask for big letters. Shading and flourishing should be discouraged, and the whole stress should be thrown upon three essentials:

- (a) good, legible forms of letters.
- (b) uniformity of height.
- (c) uniformity of slope.

The vertical is undoubtedly the hygienic form: but teachers should not interfere too much with the pupils' individuality in this respect, providing there is uniformity in his style.

*Drawing.* The Augsburg books have done a good deal to make Drawing an attractive task. The new Prang books are even more taking than Augsburg's series: the objection to either series is their considerable cost.

*Hygiene.* In hygiene it would be best to follow the general plan given on pp. 201 ff of the October, 1909, JOURNAL. Some omissions might be made of matters of technical physiology, and some valuable additions likewise. The syllabus of hygiene should encourage the teacher to prepare lessons instead of inclining her to prescribe pages for pupils to recite. Whenever possible she should follow the nature-study method, i. e. the appeal to the observing faculty of the pupil.



## HEALTH ORDERS AND INFORMATION FOR PUBLIC SCHOOLS.

### TO SCHOOL TRUSTEES.

#### (DUST AND DIRT IN THE SCHOOLROOM.)

Physicians and scientific men have for years been studying dust, and its effect in causing disease. They have gathered it in schools, public buildings and dwellings houses, have examined it under the microscope, added it to substances in which germs will grow, have compared these germs with those known to cause different diseases, and have found it to be one of the great disease carriers.

The finest and lightest dust which cannot be seen by the naked eye, or can only be seen as motes when a beam of sunshine passes through the room, is by far the most dangerous.

Many scores of times the dust collected in various places has been administered to animals (fed to them, injected into the lungs or under the skin), with the result that sickness or death followed—according to the germs present.

It is well-known that consumption of the lungs (tuberculosis), that great scourge of the human race, is spread by means of dust, and in hardly any other way. The dust of a room in which a consumptive has been spitting about the floor is more deadly than arsenic or strychnine, and injected under the skin of an animal causes it to die of tuberculosis in a few weeks. If the dust is breathed by a human being, he is very likely to contract the disease and die.

Other disease germs are carried in the same way, and it has very often happened that dust carried to a child's mouth by his fingers or breathed in from the air has formed the starting point to a case of fatal illness without the parents, or perhaps even the physician, suspecting the true origin.

Nor is this all. Dust in any form, breathed in day after day for years, irritates and inflames the delicate tissues of the child's lungs, until like a well-ploughed, well-manured field, they become a favorable growing ground, so that when germs are inhaled, instead of being starved out as they often are in healthy tissues, they flourish exceedingly and the child sickens, suffers and dies.

These are not dreams but facts, proved many times over by men whose whole lives are given to studying and fighting disease and I would earnestly ask your sympathy and help in seeing that the following rules are observed, and if we succeed in preventing even a little sickness, and in saving even one life, we shall have had our reward.

#### DIRECTIONS FOR THE CLEANLINESS OF THE SCHOOLROOM.

I. *Have the Schoolroom, Halls and Entries swept every day.*

NOTE.—Every good housekeeper sweeps her house every day. How much more necessary is it in a building where many children are crowded together for six hours a day, and into which dirt and germs are dragged from every part of the section.

II. *Raise the windows while sweeping, and keep them raised for some time afterward.*

NOTE.—By keeping the windows open much of the dust will blow out.

III. *Before sweeping sprinkle the floor with damp sawdust; don't use water.*

NOTE.—Sawdust is the best substance, and can generally be easily obtained and kept in barrels. It keeps the dust from rising and settling again after the room is swept. Sprinkling with water simply binds the dust to the floor, ready to rise again as soon as dry.

IV. *At least an hour before school opens the schoolroom should be carefully dusted, especially the tops of desks, seats, window ledges, etc.*

V. *The schoolroom should be thoroughly scrubbed at least every month.*

NOTE.—If scrubbing, perhaps every week, is necessary in our homes, how much more so in our school-rooms, where there are so many to drag in dirt. Besides, dust is even more dangerous to children than to grown persons.

VI. *Once a year the walls, floors, desks, etc., should, after being scrubbed, be wetted over with a mixture of carbolic acid and water, four teaspoonfuls of the acid to a pint of water.*

NOTE.—Such a cleansing of the schoolroom would kill all germs, and if this could be done at the Christmas vacation (germs are more virulent in winter) it would go far toward the health of the school.

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#### TO TEACHERS.

Post a copy of the "Health Rules" for Pupils where it can be easily read.

Give a series of short lessons on these rules and the reasons for them.

Check the practices therein condemned. Make frequent reference to them and, as far as possible, see that they are observed.

Read carefully the "Circular to Trustees"—talk it over with them and assist in carrying it out.

Try and persuade the physician of the section to impress upon the ratepayers the connection of dust and dirt with disease, and to advocate the more frequent scrubbing and sweeping of the schoolroom.

See that the water bucket is thoroughly scrubbed every week. Get a cover for it in order to keep out the dust.

The carrying out of the directions for the cleanliness of the schoolroom and the health of the pupils depends almost entirely on you. Let your own desk be a model of cleanliness and neatness. Put into practice yourself the rules given for pupils. Your example in these respects will carry more weight with the pupils than anything else.

Should your schoolroom become dirty, or the outbuildings and premises be in an unsanitary condition, through the neglect of the trustees or those in charge, do not fail to report to your Inspector at once.

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#### NOTES ON "HEALTH RULES FOR PUPILS."

The following brief notes are given so that the teacher can explain and apply the rules more intelligently.

The germs which cause tuberculosis (consumption), pneumonia, la grippe, diphtheria and many other diseases, are found in the saliva, especially when mixed with secretions or discharges from the nose, throat or lungs. It is not uncommon for these diseases to exist in so mild a form that the child is hardly sick and yet such cases are capable of spreading the disease. The spit mixes with the dust on the floor, becomes dry, the germs are set free, rise in the air, enter the lungs and cause the disease.

Children are not careful as to what they handle and their chances of acquiring disease are much increased by putting their fingers into their mouths.

The long passage from the nose to the lungs gives off and is constantly wet with a sticky secretion, the object of which is to strain the dust, disease germs and other foreign substances from the air before it reaches the lungs. It will be readily understood that this secretion, even from a healthy person, might contain disease germs.

Both paper money and coins are capable of carrying dangerous germs. Remembering that money is frequently handled by persons affected with the most loathsome diseases, the necessity of this rule will be at once understood.

The intelligent teacher will be able to apply the 'principles given above to all the rules, and show the pupils the great necessity of observing them.

#### CHILDREN SHOULD BE TAUGHT

to wash the hands and face often, and keep their persons and clothing clean; for if one should then be taken down with a communicable disease there will be less danger of infecting other pupils or things.

They should also be taught the reasons of the following rules, and carefully watched and directed until all objectionable habits are lost and replaced by good habits. This duty is really the most important work of the teacher, and should be done even should the teaching of the book lessons be delayed.

#### HEALTH RULES.

TO BE PLACED IN EVERY CLASS ROOM AND GIVEN TO EVERY PUPIL.

Remember These Things.

Do not spit if you can help it. Never spit on a slate, floor, or sidewalk.

Do not put the fingers into the mouth.

- Do not pick or wipe the nose on the hand or sleeve.
- Do not wet the finger in the mouth when turning the leaves of books.
- Do not put pencils into the mouth or wet them with the lips.
- Do not put money into the mouth.
- Do not put pins into the mouth.
- Do not put anything into the mouth except food and drink.
- Do not swap apple cores, candy, chewing gum, half eaten food, whistles or bean blowers, or anything that is put in the mouth.
- Do not drink out of the common drinking cup before allowing some of the water to run over the edge of the cup that is to be applied to the lips.
- Never cough or sneeze in a person's face. Turn your face aside.
- Keep your face and hands clean; wash the hands with soap and water before each meal.

A. P. REID, M. D.,

Provincial Health Officer.

FROM THE PROVINCIAL HEALTH OFFICER'S REPORT 1909.

SMALL POX.

The public are loath to recognize the fact that small pox has prevailed for several years past in different sections of the Province, and is likely to remain until all are protected by vaccination or otherwise; and the sooner that protection becomes general the sooner will the disease be eradicated, and this is specially needful with children—the earlier the vaccination the more protection will be conferred.

No child should be allowed to attend school unless protected, for many reasons; and the efforts of the City Board of Health of Halifax have encountered much unreasonable opposition, particularly from the anti-vaccinationists. These people may be sincere, but they are ignorant of the experience of the world on this subject, or at least misinformed.

To the end that all objections should be definitely and correctly answered the following letter was sent to the Chronicle, Herald and Recorder, which was duly printed and distributed. Prejudice is too often quite uninfluenced by argument, and even by demonstration; and to combat it continuous effort is needed on the principle that "the steady drop will pierce a stone."

## LETTER TO THE PRESS.

MIDDLETON, N. S., May 8th.

DEAR SIR:

I have been an interested though *unconsulted* observer of the discussion on this subject, and it appears to me that there are some facts that were not prominently enough brought forward, and with your permission I will summarize a few.

1st. In the unprotected, small pox is the most painful, loathsome and fatal disease that affects humanity.

2nd. Of late years it has been mild in character, presumably due to inherited protection not yet dissipated, but liable at any time to break out fiercely.

3rd. An attack of the disease confers immunity in some for life, but this protection diminishes in time.

4th. The Arabians discovered that inoculated small pox was much less fatal and conferred immunity, and this practice at one time was in vogue, and so continued until—

5th. Vaccination was discovered by the immortal Dr. Jenner, which confers equal protection with small and harmless constitutional disturbances, and is only propagated by direct inoculation.

6th. Over 100 years of experience of this procedure in every clime, with all classes of people, has demonstrated its reliability.

7th. After 50 years of personal experience, I cannot recall a case in which injury resulted, and such has been the result with my confreres—as far as I can find out.

8th. If it did not produce some constitutional disturbance it would be useless, and it has no effect on those who are protected.

9th. Deaths have occurred after vaccination as it may after any scratch or injury. Clear proof of its having been the cause is disputed. *Post hoc ergo propter hoc* is not always a reliable conclusion.

10th. Small pox is the only disease over which we have control.

11th. Why not control it?

12th. A protected community can ignore small pox, and as well a protected individual can travel or expose himself with impunity.

13th. Vaccination of infants gives protection for life and an immunity for a more lengthened period than in the case of adults, and why should a parent refuse this boon to his child?

14th. Leaving science *pro tem* for society, a red rag may fail to arouse a combative bull, but *compulsion* rarely fails to arouse the Briton to combative energy.

15th. But like the mettled steed when broken to harness, he can most efficiently place his weight in the collar, so our average Briton can carry out effective citizenship. *Inter alia*. Confederation aroused most intense opposition, conscientious scruples, &c., &c. But to-day are there more ardent or effective upholders of the B. N. A. Act than our whilom anti-confederates?

16th. Their response: the thing was wrongly done.

17th. But again there was no other way to get it done.

18th. If a thing be *right*, let it be done.

19th. That vaccination is right we have the experience of the world to confirm; also that of the medical profession who strenuously opposed it for years. Again the health officers over the province for years past always report to me that vaccination protects from the form of disease now prevalent, and a similar report comes from the other provinces, the United States and other countries.

20th. A child in ordinary health, able to run about, will not be injured by vaccination—it may for a short time “be under the weather,” while the virus is producing within its constitution a something which will give it protection from small pox.

21st. With the care now used there is no fear of any disease being conveyed by the vaccine—and but little in any case.

22nd. Were the risks ten times as great there is no comparison between it and an attack of virulent small pox. I have had the experience, modified to some extent by a long antecedent vaccination.

23rd. An unprotected person is a menace to a community when small pox is rife. He may carry disease within himself that no disinfection can eliminate and, *pro tem*, should be ostracized.

24th. The duty of the Board of Health is to protect the community from disease, and special attention must be given to schools and assemblages, and a *conscientious scruple* is no bar to conveyance of disease.

25th. We must recognize the right of a person to contract small pox or any other *disease* if he so wills it, but he has no right to impose it on another or to cause another to run any risk, and the duty of the Board of Health is to minimize this risk.

26th. Their effort to have all children vaccinated was dictated as much in the interest of the child as of the community, and as well to have the schools kept open and courses not interfered with during the recurrent small pox visitations that we are going to have intermittently until all are protected, when, and when only, it will die out.

27th. The present disease in many cases produces less constitutional disturbance than vaccination. Why not have it instead? There are two conclusive reasons against it:—it does not protect to the same extent as does vaccination, and it keeps up disease and illness in a community and makes that community a menace to others which vaccination does not.

28th. A *conscience scruple clause* is impracticable, however desirable it may be, and a Board of Health must carry out clauses 22, 23, 24, 25, &c., of the Public Health Act, as to them on due consideration seems best to meet the situation.

A. P. REID,

*Chief Health Officer.*

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### THE VACCINATION LAWS.

[COPY.]

DEAR SIR:

HALIFAX, 5th August, 1909.

Referring to your letter of 12th ult. to the Provincial Secretary, in which you ask the following questions, viz:

1st. How far does the Public Health Act go in preventing unprotected children from attending school?

2nd. How far does the Public Health Act go in effectively carrying out general vaccination?



3rd. How far does the Public Health Act go to prevent entry of unprotected immigrants?

I am directed to inform you as follows:

1st. The Public Health Act, Section 22, provides in effect that if any infectious plague, disease or distemper *has been introduced or there is immediate danger of its introduction* into any place, the local Board shall assemble immediately and may make regulations *as occasion requires, etc.* Section 45 provides in effect that a local Board may direct a general vaccination in any district or part of a district, etc. I think these clauses give each local Board sufficient powers to direct and carry out a general vaccination.

2nd. Section 22 of the Public Health Act, above referred to, I think enables a local Board to pass a regulation to prevent unprotected children from attending school.

3rd. That section also, I think, enables a local Board to pass a regulation providing for the quarantine after landing of unprotected immigrants until they are vaccinated.

Yours truly,

FRED. F. MATHERS,

*Deputy Provincial Secretary.*

DR. A. P. REID,

*Prov. Health Officer, Middleton.*

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[FROM THE EDUCATION REPORT, 1909.]

From Table;XIV it appears that not one-half of the children attending school are vaccinated against smallpox. And we find public health officers closing schools on account of threatened epidemics; and public money is drawn for the school time thus lost. I called attention to this conduct last year; and recommend that as so well proven a preventive as vaccination is being so generally neglected, no allowance henceforward be granted to schools on account of the time they may be closed for fear of small pox. It is an unfair imposition on the intelligent minority, who protect themselves for the public good at some personal sacrifice, to see the public funds utilized in encouraging the neglect of the same precaution on the part of others.

### MEDICAL INSPECTION IN THE HALIFAX CITY SCHOOLS, 1909.

Dr. Allan R. Cunningham, Medical Inspector, reported as follows:—

In addition to the regular inspections, in September and October we have had to cope with an epidemic of diphtheria, and during these two months I personally examined the throats of over six hundred school children of the primary grades; excluding from school attendance any showing the slightest abnormality. Several of these cases subsequently developed diphtheria, at a safe distance from school, however. In all the schools instruction was given as to the best methods of prophylaxis, &c.

As we use the card catalogue system the first issue of ten thousand cards was exhausted during this year and ten thousand more have been printed on a somewhat improved pattern.

The low percentage of deformities and pulmonary tuberculosis is evident, but the latter disease usually does not develop till puberty, and the way has been prepared by adenoids, enlarged tonsils, carious teeth, etc.

We have observed that poor illumination of a school room has a decidedly injurious effect on the eyesight of the pupils, sometimes over 15% being unable to pass the test.

Like every other advance in civilization, the school inspector at first met with considerable opposition. This is now past and the majority of citizens are anxious to have their children examined—being at no expense. At least 60% take action when the delicate information is conveyed that the child is abnormal in some respect. Unfortunately many are absolutely indifferent to the welfare of their offspring. They are notified time and again but each examination shows the child gradually becoming more deficient physically and mentally. Expense is no excuse, as such cases can be treated free of charge, at the Dispensary or Victoria General Hospital.

I remain, Sir,

Yours respectfully,

ALLAN R. CUNNINGHAM.

#### HALIFAX SCHOOLS—PHYSICAL RECORD.

Number examined 3182.

Anæmia.....	33
Enlarged Glands.....	217
Chorea.....	11
Card. Dis.....	3
Pulm. Dis.....	5
Skin Disease.....	13
Deform.....	8
Defective Vision.....	208

Inflamed Eyes.....	205
Defect. Hearing.....	69
Discharging Ears.....	21
Def. Nas. Breathing.....	136
Deformed Palate.....	1
Hyp. Tons.....	210
P. Nasal Growths.....	85
Treatment Recommended	325

Dr. F. V. Woodbury, Medical Inspector, reported as follows:—

Aside from the regular inspection of the year, it was found necessary to take special measures for the control of epidemic diseases. This consisted in the individual examination of hundreds of healthy pupils and suspected cases, preparation of circular letters, and special instruction to teachers and pupils for preventing the spread of infection. This work is not shown on the table given below.

During part of the session it was necessary to suspend work on the regular examination because of the absence of a large proportion of the pupils, on account of disease or fear of vaccination, frequently the very ones we wished to reach.

The work of the regular inspection covered 2158 pupils in seven schools only three having been omitted. The examination has been more searching and the figures are therefore a little higher on some diseases.

The results in tabulated form are as follows:—

Pupils found suffering from:—		
Anæmia.....	138	Defective Hearing..... 31
Enlarged Glands.....	70	Discharging Ears..... 12
Chorea.....	3	Defective Nasal Breathi'g. 103
Cardiac Diseases.....	42	Deformed Palate..... 2
Pulm. & Bronch. Dis.....	83	Hypertrophied Tonsils... 291
Skin Diseases.....	61	Post Nasal Growth..... 97
Deformities.....	42	Defective Vision..... 298

It will of course be understood that several of these conditions very frequently recur in one child. The great majority of cases do not require attention and many are already under treatment.

Eighty-two pupils were under treatment at the time of the examination. One hundred and thirty eight parents were recommended to consult their family physician about their children.

Treatment adopted as a result of previous work 71.

The advertising work of the anti-tuberculosis League has done much to make the parents understand and appreciate the work of the Medical Examiners. Opposition to the inspection having practically ceased, and expressions of gratitude from the parents who have had their attention directed to abnormal conditions in their children are not uncommon. This is encouraging. Improved methods will make the examination in the coming year even more effective.

## THE ANTI-TUBERCULOSIS CAMPAIGN.

Instead of publishing further information in this JOURNAL which is already excessively full, teachers and others are directed to send a card to "The King's Printer, Halifax, N. S." asking for a copy of the "Public Health Circular No. 27" and it will be sent promptly and free. It contains about thirty pages of the latest information respecting the treatment of Tuberculosis.

## THE WHITE DEMON.

*And How to Fight it*

is the title of an interesting "fairy story" which can be read and understood by children, showing how "Consumption" is being treated in Ireland, where it is hoped to become extinct as leprosy became in 1767 after a fight of about a thousand years. Typhus fever is a later disease which has just been exterminated. This 5 by 7 inch book of 112 pages was written by F. E. Eaton, with a "foreward" by the Countess of Aberdeen; and is published by Maunsel & Co., of Dublin, -/4 net to pupils in National Schools (Ireland, 1/- in cloth.

## SCHOOL GRANTS AND HEALTH.

Education Act, Chapter 52, R. S., Nova Scotia, 1900, Section 108.

"The Superintendent may, with the sanction of the Council, withhold in whole or in part the provincial grant from teachers who are *remiss* or *inefficient* in the discharge of their duties, and the grant from the Municipal School fund from *sections failing* to make reasonable provision for the *health, comfort* and progress of the children attending school."

Both teachers and trustees are therefore held by the law responsible for good health conditions to the extent of the loss of a part or the whole of the public funds provided for them under regular conditions.

It is the teacher's duty specially, to watch not only the health conditions of the school, but of the school section and the country in so far as they may tend ultimately to effect the school.

## MEDICAL AND DENTAL INSPECTION OF PUPILS IN RURAL SCHOOLS.

The extracts made above from the reports of the medical and dental inspectors of the pupils in the Halifax Schools, are for the

purpose of aiding teachers, trustees and parents throughout the country, to think of the great importance and the little cost of arranging, as the law now allows school boards to do, to have the children in the school examined once or twice each year by the best medical man in their neighborhood.

The small cost for which this can be done all over the country is nothing compared with the amount of lifelong suffering which may be obviated in the case of a few in every school, and the added years of healthy life which are likely to be secured for many of the pupils. This is really more necessary in the country than in the towns where doctors and dentists are always within easy reach. But even in Halifax, with all these advantages at a maximum, there have already been hundreds of boys and girls saved, who unknown to their parents were undergoing physical degeneration which would soon have made life a burden, or cut it short. And still a greater number not knowing what was wrong with them, or not knowing that a serious menace to health, vigor and future success, had already set in, had their attention, and their parents' attention, called to their condition in good time. When we are spending so much money in bringing foreigners to fill up our country, how much more should we be willing to spend the small amount necessary to keep our own sons and daughters alive, in good health and vigor.

Parents! discuss this at your next annual meeting. Don't let the month of June pass without considering it. Authorize your trustees to arrange with the best local medical man to inspect and report upon the health of each pupil at school. At the following annual meeting pay close attention to the medical officer's report, and see, even if you have been so fortunate as to have received no benefit on account of the perfect health of your own children, if there will not be several cases in which candidates for a broken-down or weakened life have gained a chance for a vigorous and useful life. Each such saved boy or girl is of more value than a foreign immigrant—very much more, for they are our own people. Instead of being invalids on our hands, they will be helpers. The cost of these precautionary measures, will be a mere bagatelle compared with the life, light and labor saved in the school section.

Our Act is merely permissive, assuming as it were that our people are intelligent, and have been simply waiting for an Act which would give them the legal power to arrange for the inspection. If school sections are so inert, or so blind to their common interests, as to neglect such a provision; it may become the duty of the Legislature to make such inspection imperative.

The legislature of British Columbia has just taken this step, and is therefore considerably in advance of Nova Scotia in the matter of tolerating inaction in so important a matter as the conservation of the public health in the schools. For the full information of all concerned the British Columbia law, passed only two months ago, is given below.

CHAPTER 45, (BRITISH COLUMBIA).

AN ACT TO PROVIDE FOR THE MEDICAL INSPECTION OF SCHOOLS.

[25th February, 1910.]

HIS MAJESTY, by and with the advice and consent of the Legislative Assembly of the Province of British Columbia, enacts as follows:—

1. This Act may be cited as the "Schools Health Inspection Act, 1910."

2. The School Trustees of every City and of every Rural Municipality School District in the Province of British Columbia shall appoint one or more School Health Inspectors, shall assign to each Inspector the schools to be inspected, and shall provide them with proper facilities for the performance of their duties as Health Inspectors of Schools and School Children.

3. The Provincial Board of Health shall appoint, in districts outside cities or municipalities, one or more School Health Inspectors, shall assign to each Inspector the schools to be inspected, and shall provide them with proper facilities for the performance of their duties as Health Inspectors of Schools and School Children.

4. School Health Inspectors shall be duly qualified medical practitioners: Provided, however, that the Provincial Board of Health may from time to time appoint persons other than School Health Inspectors to perform such duties as the said Board of Health may deem necessary or expedient.

5. (1.) Every School Health Inspector shall forthwith upon his appointment, and thereafter at least once in every school-year, or oftener if required by the School Trustees, make a thorough examination as to the general health of all children attending school in the District in which he is such Inspector, and of all teachers and janitors in such District. He shall also carefully examine all school buildings and school surroundings in his District, and shall report to the Board of School Trustees, fully and in detail, the result of such examinations. In such report he shall state whether or not he considers that the condition of health of any child, children, teacher or janitor (naming them) is such as to endanger the health of the children at such school, and shall set forth its recommendations as to the school buildings and school surroundings.

(2.) The Board of School Trustees for the District shall forthwith act upon such report, and shall remove from the school any child or children, teacher or janitor whose health is so reported by the School Health Inspector as being dangerous to children in such school, and such child, children, teacher or janitor shall not be permitted to return to school in such District unless and until he or they deliver to the Board of School Trustees a certificate in writing, signed by the School Health Inspector for the District, permitting such return.

6. The School Trustees of every School District in the Province shall cause every child in the Public Schools to be separately and carefully tested and examined at least once in every school-year as to the condition of sight and hearing, of throat and teeth, and as to any other physical disability or defect liable to prevent his receiving the full benefit of his school work, or as to whether he requires a modification of the school work in order to secure the best educational results. The tests of sight and hearing may be made by teachers having authority from the Provincial Board of Health. The School Trustees shall cause notice of any such defect or disability requiring treatment to be sent to the parent or guardian of the child, and shall require a physical record of each child to be kept in such form as the Provincial Board of Health shall prescribe.

7. (1.) The School Trustees, or teacher in charge, shall cause to be referred to a School Health Inspector (who in such case must be a duly qualified physician) for examination and diagnosis, as follows:—

(a.) Every child returning to school without a certificate recognised by the local health authorities after suffering from or being exposed to any contagious or infectious disease:

(b.) Every child who has been absent on account of illness or from unknown cause:

(c.) Every child who shows signs of being in ill-health or suffering from contagious or infectious disease; unless he is at once excluded from school by the teacher:

(d.) No child so referred to the School Health Inspector shall be permitted to return to school unless and until he delivers to the teacher in charge of the school a written certificate, signed by the School Inspector, permitting such return.

(2.) In the case of schools in remote and isolated situations the School Trustees or Teacher may make such other arrangements as may best carry out the purposes of this Act.

8. Whenever a child shows symptoms of smallpox, scarlet fever, measles, chickenpox, tuberculosis, diphtheria or influenza, tonsillitis, whooping cough, mumps, scabies, ringworm, trachoma, or any other contagious or infectious disease, he shall be sent home immediately by the teacher in charge of the school, or as soon as a safe and proper conveyance can be found, if such is necessary, and the Local Board of Health and School Trustees shall at once be notified by such teacher.

9. The Provincial Board of Health shall prescribe the directions for tests of sight and hearing and shall prescribe and furnish forms for test cards, blanks, record books and other useful appliances for carrying out the purposes of this Act.

10. The School Health Inspector shall have supervision over all physical exercises of pupils attending school and in special cases may modify or prohibit such exercises.

11. The School Health Inspectors appointed under this Act in cities and municipalities shall receive such remuneration for their services, by salaries or fees, as may be agreed upon by the authority appointing them, and such remuneration shall be deemed to be part of the general expenses of the School District, and shall be raised and collected in the usual method of raising school funds.

12. It shall be the duty of the School Trustees of each School District to see that the provisions of the "Health Act" are carried out as regards the pupils attending school in their District.

13. School Boards of City and Municipal School Districts may pass by-laws and regulations for the better carrying out of the provisions of this Act, but the approval of the Provincial Board of Health shall be procured to such by-laws and regulations before they become operative.

14. All appointments made under the provisions of this Act by School Trustees must be made subject to the approval of the Provincial Board of Health; and the dismissal of officers appointed by School Trustees hereunder must be subject to confirmation by the Provincial Board of Health.

15. An annual report shall be made at the termination of every school-year by the School Health Inspector to the Provincial Board of Health; such report to be in such form as the Provincial Board of Health may require.

16. The Provincial Board of Health may demand at any time a report from any School Health Inspector on the health conditions of the children attending any particular school or schools, or on any other condition in or around the school which might influence the health of the children.

17. An annual report on School Health Inspection shall be prepared by the Secretary of the Provincial Board of Health and submitted to the Honourable the Provincial Secretary for presentation to the Legislature every year.



## THE STRATHCONA TRUST.

### For the Encouragement of Physical and Military Training in Public Schools.

1. This Trust is administered by an *Executive Council* for the Dominion which meets at Ottawa, and by a *local committee* constituted by the Dominion Executive for each Province.

2. The local committee for Nova Scotia has been constituted as follows:—

*Chairman*:—Brigadier-General C. W. Drury, C. B., A. D. C., Officer Commanding Maritime Provinces Command.

*Members*:—Rev. John Forrest, D. D., LL. D., President of Dalhousie University.

Joseph A. Chisholm, Esq., M. A., LL. B., Mayor of Halifax.

Graham Creighton, Esq., B. A., Inspector of Schools.

Lieutenant-Colonel W. E. Roscoe, 68th Regiment, Kentville.

Captain R. H. Graham, 78th Regiment, New Glasgow.

Captain A. H. Borden, The Royal Canadian Regiment, Halifax.

*Secretary*:—Captain A. H. Borden, Headquarters, Halifax.

3. Subject to the conditions of the donation, and the decisions and general direction of the Dominion Executive, the duties of this local committee have been defined as follows:—

(a) Ensuring that the means of instruction in physical and military training are available for both teachers and pupils, where required.

(b) Division of the Province into convenient districts for purposes of supervision and competition.

(c) Arranging details of the training to be given, so as to suit local conditions.

4. The following are the general principles in accordance with which the Trust shall be administered:

(a) His object being not only to improve the physical and intellectual capabilities of the children, by inculcating habits of alertness, orderliness and prompt obedience, but also to bring up the boys to patriotism, and to a realization that the first duty of a free citizen is to be prepared to defend his country, the intention of the Founder is that, while physical training and elementary drill should be encouraged for all children of both sexes attending public schools, especial importance is to be attached to the teaching of military drill generally to all boys, including rifle shooting for boys capable of using rifles. All boys should, so far as possible, be made to acquire a fair acquaintance, while at school, with military drill and rifle shooting.

(b) The administration of the Trust shall be such as to enable both sexes, whether teachers or pupils, to share in the rewards, and the allotments of money should be so made as to afford an inducement both to the teachers to instruct and to the pupils to perfect themselves in the training specified above.

(c) The whole of the money grant, in the preliminary stages at least, is to be devoted to encouraging the training referred to in those schools and other educational establishments which are maintained out of public funds.

(d) The allotment of the funds available for rewards between the several Provinces shall, broadly speaking, be in proportion to their population of school age.

(e) Service, whether on the Executive Council or the local committees, shall be gratuitous. There shall be no fees chargeable against the Trust.

In the application of these principles, the Executive Council shall be the sole judge of the intentions of the Founder, and its decision shall be final.

##### 5. PHYSICAL DRILL AND MILITARY TRAINING IN THE PUBLIC SCHOOLS OF NOVA SCOTIA.

(1) The Nova Scotia Educational authorities will enforce more generally their existing regulations which prescribe the practice of Physical Training and Military Drill in all public schools, and will further adopt a system uniform with that of the other provinces of Canada, and of Great Britain, suitable to the age and sex of the pupils, and will encourage the formation of cadet corps, and rifle practice, among the boys of high school age, on the understanding that the Militia Department, on its part, will:—

(a) Provide competent instructors, at convenient places and seasons, in order to enable teachers, both those now employed in Nova Scotia, and those under training for such employment, to qualify themselves to carry out physical training and military drill; and will also

(b) Grant an annual bonus to such qualified teachers as actually impart this instruction, provided that they make themselves eligible for this bonus by becoming members of the Militia Force.

(2) As regards the instruction of the teachers already employed, there appear to be four centres, at or near which a sufficient number of teachers are employed to enable classes to be formed and carried on in the evenings, without interference with the ordinary day's work, viz:—Halifax, Sydney, Truro, Yarmouth, and possibly a fifth at Pictou or New Glasgow or Antigonish, may be added. Each course would be followed by an examination.

(3) For the benefit of the large number of teachers working out of reach of these centres, it was agreed that such instruction might best be provided during the summer vacation, either at the Vacation School held at Truro, or at the Summer Science School of the Atlantic Provinces, wherever held. It is proposed in these cases to hold two courses of three weeks each, at each place, followed by an examination.

(4) The Militia Department will provide the Instructors required, dates and places being settled by agreement with the Education Department of Nova Scotia.

(5) In order to provide for the instruction of those students who are qualifying to become teachers, the Militia Department will also provide a competent instructor to conduct a course of Physical Training and Military Drill at the Normal School, Truro, dates to be hereafter arranged, with the Education Department.

(6) In future the Education Department will, before granting a teacher's license higher than third-class, require a certificate of competency to instruct in Physical Training and Elementary Military Drill. This certificate, Grade B (Military), will, if desired, be issued after examination by the Department of Militia and Defence.

(7) The Education Department will within three years from the close of the present school year, give an opportunity (as in 2 and 3 above) for all teachers above the third class who have been licensed without the certificate of Grade B (Military) to obtain this lower certificate, so that no school of higher grade than third class need be without a teacher competent to give the prescribed physical drill effectively in all the departments of the school.

(8) The certificates issued will be of two grades:—

Grade A (Military) will represent competency to instruct both in Physical Training and advanced Military Drill, including rifle shooting, and will be issuable to male teachers only, upon their passing a satisfactory examination after a course of instruction carried out at, or under the supervision of a Military School of Instruction.

Grade B (Military) will represent competency to instruct in Physical Training and Elementary Drill and will be issued to teachers of both sexes.

(9) The Militia Department will pay the annual bonuses referred to in paragraph 4 to those teachers only who hold Grade A (Military) certificates and actually instruct the pupils, and are in addition officers of the School Cadet Corps or members of the Militia.

Under the existing regulations for Cadet Corps, the Department of Militia grants to instructors of Cadet Corps who are on the instructional staff of the school or college concerned, and who attend and obtain a qualifying certificate at any of the Infantry Schools of Instruction, the same transport and allowances as are paid to officers of the Militia for similar attendance.

The annual bonuses will be paid upon the certificate of an Inspecting Officer of the Militia that the instruction imparted is satisfactory.

(10) The Militia Department will draft a syllabus of the work required to be done by a School or College Cadet Corps in order to entitle a teacher to the annual bonus, and will conduct the necessary examinations. Until Cadet Corps possess in their officers qualified instructors, this work of instruction will be carried out by instructors detailed by the Militia Department, so far as practicable.

(11) The new system will, so far as possible, be brought into force on 1st August, 1908.

(12) The system of Physical Training adopted, should be such as to lead on naturally, without change, to the system of drill in force for the Canadian Militia. With this object the Syllabus of Physical Exercises in use in British Elementary Schools will be retained, for the present at any rate. It will be supplemented, for more advanced training and rifle practice, by the official "Infantry Training" in use by the Canadian Militia.

The instruction given in the schools will be such as is suitable to the age and physical condition of the pupils.

(13) The Department of Militia will be prepared to supply for the use of Cadet Corps—belts, caps (if desired), a proportion of arms and ammunition, and, in addition, drill books for the more advanced training. Uniforms, if worn, must be supplied by the schools themselves.

(14) The amount of the bonuses to be paid by the Department of Militia and the minimum number of boy members necessary to enable a Cadet Corps to be formed (upon the instruction of which the grant of the annual bonus depends) will be fixed after discussion between the Department of Militia and the Education Department of the Province.

6. Among the decisions of the Dominion Executive on the 26th of November, 1909, were the following, which were duly transmitted for the guidance of the local committee for the Province.

(1) The grant in each Province shall be divided between (a) Physical Training, (b) Military Drill, and (c) Rifle Shooting in the ratio respectively of 50, 35 and 15 per cent.

(2) The rewards to teachers for excellent physical training should be only large enough to arouse interest, the details to be left to the local committee as defined in formal minutes.

(3) Cadet Corps, should as far as possible, be inspected in Company drill; Battalion Drill; Outpost and Advance Guards; Manœuvre (attack and defence);

and Scouting. The percentage of marks to be allotted under the modifications recommended by the local Committee should be as follows

- 40% to Company Drill.
- 30% Extended Order.
- 20% Discipline, Cleanliness, Care of Arms and Accoutrements.
- 10% to Scouting.

Fifty per cent. to be allotted while the Cadet Corps is under the command of the Cadet Instructor, and fifty per cent. while under the command of the Cadet officers or non-commissioned officers.

(4) The allotment of the prizes for Rifle Shooting and their division between "Service" and "Miniature" Shooting should be left to the Local Committee.

(5) The total grant to Nova Scotia for the school year 1908-9 was fixed at \$800. The same amount was authorized for the school year 1909-1910. \$400 for Cadet prizes, and \$400 for Physical Training in the common schools.

7. Among the more important decisions of the local Committee made at its first meeting, on the 29th December, 1909, are the following:—

(1) The Physical Training system shall be that of "The Syllabus of Physical Exercises for Public Elementary Schools, 1909" (Great Britain), with such modifications of a few commands and movements (to articulate better with the Canadian Militia Drill) as may be decided upon and be published in the *Journal of Education*.

(2) The present twelve inspectorial divisions of the Province shall be the Provincial subdivisions for supervision of, and competition in, Physical Training for the Strathcona prizes, the four hundred dollars under the clauses 6 (1) and (5) preceding shall be apportioned for 1909-1910 to each inspectorate in proportion to the annual school enrolment. This gives the following totals for the Strathcona Physical Training prizes for each Inspector for the past school year:

PHYSICAL TRAINING PRIZES.

Division No.	1	Inspector	Creighton	\$ 59 23
"	2	"	Mackintosh	38 33
"	3	"	Bruce	31 92
"	4	"	Morse	34 14
"	5	"	Roscoe	36 26
"	6	"	Macdonald	24 84
"	7	"	Maeneil	20 58
"	8	"	MacKinnon	20 00
"	9	"	Armstrong	25 59
"	10	"	Craig	35 97
"	11	"	Phelan	51 46
"	12	"	Campbell	21 68
				\$400 00

(3) The Inspector of Schools shall award the prizes for physical training within his own inspectorial Division. The total amount of each prize shall be paid to the teacher who shall apply *one-third* of it, with the approval of the Inspector and trustees, to some appropriate object to be permanently displayed in the school room as a memento. The following competition subdivisions of each Inspectorial Division are provisionally intimated, for the present year.

No. 1. Three prizes in the ratio of \$7, \$5 and \$3 to be competed for in each of the four subdivisions of the inspectorate as follows: (a) Halifax City, (b) Halifax West, (c) Halifax East, (d) Halifax Rural. Twelve prizes amounting to \$59.23.

No. 2. One prize to each of the following three subdivisions of the inspectorate, sections having an organized Cadet Corps being excluded from the competition, as they have an equal prize fund for the cadets. (a) Lunenburg East of the Lahave, (b) Lunenburg West of the Lahave and (c) Queens county. Three prizes amounting to \$38.33.

- No. 3. One prize to each of the following four subdivisions, (a) Yarmouth, (b) Argyle, (c) Barrington, and (d) Shellburne. Sections with cadet corps excluded. Four prizes amounting to \$31.92.
- No. 4. One prize of \$6 to each of the following four subdivisions of the inspectorate (a) Annapolis East, (b) Annapolis West, (c) Digby and (d) Clare; the balance to be divided equally between the next best in (e) Annapolis County and (f) Digby county. Sections having Cadet Corps to be excluded from the competition. Six prizes amounting to \$34.14.
- No. 5. One prize in each of the four following subdivisions of the inspectorate (a) Hants East, (b) Hants West, (c) Kings East (including Kentville, Blue Mt., Lake Mills, Alton, Pine Woods, Steam Mill, Centreville and East Halls Harbor), and (d) Kings West. Sections with Cadet Corps excluded. Four prizes amounting to \$36.26.
- No. 6. A first and second prize in (a) Antigonish county (b) Guysboro municipality and (c) one prize in the municipality of St. Mary's. Sections with cadet corps excluded. Five prizes amounting to \$24.84.
- No. 7. A first and second prize (in the proportion of \$6 to \$4) to (a) Inverness South and (b) Richmond county. Four prizes amounting to \$20.58.
- No. 8. One prize each for (a) Inverness North, south of the Margaree river, and (b) Inverness North, north of the Maragree. Sections with cadet corps excluded. A first and second prize for Victoria county. Four prizes amounting to \$20.00.
- No. 9. A first and second prize for (a) Pictou North, and (b) for Pictou South. Four prizes amounting to \$35.97.
- No. 10. One prize for each of the following subdivisions (a) ungraded schools east of the I. C. R. and its branch, the "Short Line," (b) ungraded schools to the west of the I. C. R. and south of the "Short Line", (c) Graded schools not in the incorporated towns. (d) A first and second prize for the schools in the incorporated towns. Five prizes amounting to \$35.97.
- No. 11. A first, second and third prize in (a) Cape Breton North, and (b) Cape Breton South—the dividing line from the head waters of Sydney Harbor to the head of East Bay. Six prizes amounting to \$51.46.
- No. 12. One prize each for (a) Colchester West, (b) Colchester North, and (c) a first and second prize to Colchester South. Sections with Cadet Corps excluded. Four prizes amounting to \$21.68.

(4) It is recommended that inspectors should allot marks when inspecting physical training in the Public Schools on the following plan:—

20% to be allotted for discipline, orderliness and cleanliness. The discipline and orderliness to be judged during the ordinary school work as well as during the exercises.

35% for the performance of Physical Exercises.

45% for the general physique and health of the school. The manner in which the children sit at the desks, and carry themselves when standing still or walking should be carefully noted.

8. The following extract from the Minutes of the Local Committee of the Strathcona Trust, for the Province of Nova Scotia, is published for the information of Cadet Corps connected with public schools.

[14]. Resolved that the two hundred and eighty dollars for Military Drill for 1909-1910 be allotted as follows:—

(a) One hundred dollars to be divided equally per cadet amongst the rank and file of cadet corps which pass a satisfactory inspection, the cadets under the supervision of the Cadet Instructor to decide how this money shall be expended.

(b) One hundred and eighty dollars in prizes to the best five Cadet Corps as follows:—first prize, sixty dollars; second, fifty dollars; third, thirty-five dollars; fourth, twenty-five dollars; fifth, ten dollars. Each prize to be allotted as follows:—Cadet Instructor, one half; Cadet Captain, one-sixth; each of two Lieutenants, one-twelfth; each of four Cadet sergeants, one twenty-fourth.

[15.] Resolved that the percentage of marks to be allotted at inspection should be as follows, a slight modification in the scale as suggested by the Executive Council being made to meet the particular conditions of Nova Scotia:—

Company Drill .....	40%
Extended Order .....	30%
Discipline, Cleanliness, Care of Arms and Accoutrements .....	20%
Scouting .....	10%

Fifty per cent to be allotted while the Cadet Corps is under the command of the Cadet Instructor and fifty per cent while under command of the Cadet Officers or non-commissioned officers.

[16.] Resolved that where a Cadet Corps is a Battalion and the companies were each trained by a separate cadet instructor, that these companies should be inspected on their own merits and not as a battalion, that is, an instructor should be eligible for a prize for that body of cadets which he actually instructed. That unit of cadets competing for a prize shall be composed of all those cadets for which the instructor claims a bonus from the Militia Department.

9. The manner in which the one hundred and twenty dollars will be allotted for Rifle Shooting will be decided at the next meeting of the Local Committee.

### PHYSICAL TRAINING TEXT BOOKS.

In all the schools of the province the Physical Training will follow "The Syllabus of Physical Exercises for Public Elementary Schools, 1909," authorized officially by the British Board of Education, London. It is recommended by the Local Committee of the Strathcona Trust that a few of the words of command be changed so as to correspond with military commands to be used subsequently in the cadet corps and the militia. This simplification will call for the following changes.

Page 27. For last two sentences of paragraph entitled "Standing at Ease" substitute: The left foot is carried about a foot-length to the side, and the weight of the body should be divided equally between both feet. The hands to be lightly clasped behind the back at the full extent of the arms. After this motion has been completed the pupils are allowed to move their limbs, but without quitting their ground, so that on coming to *attention* there will be no loss of dressing.

The title of above paragraph should read "Standing Easy."

At the bottom of page 27 add the following: If it is desired to move the right foot to the side instead of the left, the command will be "With the Right Foot Stand—easy."

When a class is standing easy and the caution "Class" is given the pupils will at once place the feet one foot-length apart, clasp the hands behind the back, look to the front and remain still until a command is given. If "Atten—tion" is given, the left foot will be brought in to the right and the hands brought to the sides. The whole body assuming the position as previously described.

Page 50. The command "Quick—march" will be used not "Forward—march."

The paragraph "Turning about on the march" will read as follows:— On the command "About—turn," pupils will be taught to turn about to the right, which must be done by the pupils on their own ground, in three paces, without losing the time. Having completed the turn about, the pupils will at once move forward, the fourth pace being a full pace forward in the new direction. The word "turn" should be given when the left foot is on the ground, the first pace forward in the new direction will then be made with the left foot. With young children this pace may be slightly marked.

Page 51. The command "With change of step, forward—march" to read "With change of step, quick—march."

The command "Forward—march" after "Heels—raise" to read "quick—march."

Page 52. The command "With knee raising, mark-time" to read, "With knee raising, quick mark-time."

"With knee raising, forward-march" to read "With knee raising quick-march."

Page 53. The command "Forward—run" to read "Double—march."

Page 54. The command "Change-march" to read "Quick--march."

"With knee raising, forward--run" to read "With knee raising double--march."

"Change--run" to read "Double-march".

"Running on the spot, left (right) foot--begin" is read "Double mark--time." All movements to begin with the left foot unless otherwise directed.

Page 59. In paragraph 2 read that the second line should be formed "two paces" behind the first instead of "two feet" behind.

Paragraph 4 should read as follows:—To straighten the lines, the children, of the first line with the exception of the pupil on the extreme right will turn their heads to the right and move by short steps until they are in line with the pupil at the right and at regular intervals from each other (about one hand's breadth at the elbow). The pupils of the second line will get two paces away from and directly behind the pupil in front. When this has been done the heads are again turned to the front.

The command "Eyes right and lines--straight" to read "Right--dress."

Add after the command "Eyes--front" the following: When children have reached the age of ten years they should be taught to turn the head to the front as soon as he or she is in line. The command "Eyes--front" will then become unnecessary.

Page 60. The command "Mark--time" to read "Quick mark--time."

Page 61. The command "Right (or left) about--turn" to read "About--turn." The turn to be made to the right about.

The command "Mark--time" to read "Quick mark--time."

The command "One step forward--march" to read "One pace forward--march".

"One step backward--march" to read "One pace backward--march."

"One step to the left--march" to read "One pace to the left--march."

Pages 62 and 63. In the commands where the word "step" is used substitute the word "pace" and for "backward" the words "step back."

Under the title "Dismissing a class" substitute "On the word Dismiss, the class will first turn to the right, then after a momentary pause disperse quietly."



Page 87. For command "Slow march left (right) foot—begin" read "Slow—march."

The commands altered above occur throughout the tables and should there be amended accordingly.

### THE MILITARY SUMMER SCHOOL AT HALIFAX.

This course is provided for teachers who desire to obtain the Grade A (Military) Certificate to qualify themselves for the organization and instruction of Cadet Corps. They will be admitted only on the recommendation of the Superintendent of Education who must vouch for their professional standing; and as on account of the expense the number of candidates is limited, those standing highest in the profession with the best prospect of being able to organize and instruct a Cadet Corps, will have the preference.

#### APPLICATIONS

for admission should be made to the Superintendent of Education not later than the first week of June, quoting the class of license held, or better still, (a) the school in which he is employed (b) his class and length of service, (c) the railway station from which he will require a requisition for free transportation, and (d) his address which should be sure to find him promptly at any time from the middle of June to the date on which he must start for the school which opens on the 12th July.

Those authorized to take the course will be promptly informed by the middle of Jun, and communications from the Military school authorities will follow later to the address given.

#### OFFICIAL INFORMATION.

The following official information has been obtained from headquarter respecting this Course which is given at the Wellington Barrack, Halifax, Nova Scotia.

(a) The Course will begin on the 12th of July and will last six weeks.

(b) It consists of Scouting, Musketry, Military Drill, Tactics and other military subjects which will qualify a teacher as a Cadet Corps instructor, or for what is sometimes called "a military 'A' certificate." Physical Training as now authorized for the schools will be taught.

(c) A transport requisition will be forwarded to those authorized to take the course. This when tendered to a ticket agent will procure a first class railway ticket.

(d) The actual expenses, such as cab fare, meals, etc., incurred in proceeding to and returning from Halifax will be refunded by the Government to those who obtain a certificate.

(e) So far as accomodation will allow, teachers will live in the Officers' Quarters at Wellington Barracks. The remainder will have to live in the City. Those who live in barracks will receive about \$1.25 a day. The cost of living in the officers' Mess and other expenses will practically use up this amount. Those who live in the City will receive about \$2.00 per day and will themselves arrange for their board and lodging.

(f) The rooms in the barracks are furnished with bed, bedding electric light or lamps, bureau, commode, chamber set, table and chairs. Any other furnishings must be supplied by those occupying them.

(g) Those who do not now belong to a military unit will be required to wear uniforms as for Corps of School Cadet Instruction, but without rank badges, (see paragraph (1)).

(h) A sword and belt should be provided.

(i) Teachers who pass this course and become officers in a Regiment of the Militia, or officers of the Corps of School Cadet Instructors, and train a cadet corps which passes inspection and is connected with a public school will receive a yearly bonus as follows:—

“For the training of a cadet corps during the school year subject to the certificate of a military inspecting officer that the cadet corps has been well instructed in the course of military training laid down for them, allowance will be paid to Lieutenants, calculated as follows,—

When the corps has less than 20 cadets, no allowance will be made.

From 20 to a maximum of 50 cadets, \$1 per cadet.

For each additional cadet up to 100, 75 cents per cadet.

For each cadet in excess of 100 up to 125, 50 cents per cadet.

With no additional allowance for any cadet in excess of 125 in any one corps under one Lieutenant instructor.

G. O 58, 1909.

(j) Application to take the course at Wellington Barracks, Halifax, should be made as early as possible to the Superintendent of Education for Nova Scotia. The railway station from which transport will be required should be mentioned.

(k) Those authorized to undergo the course are to report to the Adjutant the Royal Canadian Regiment, at Wellington Barracks, Halifax, N. S., by 10 o'clock A. M., the 12th of July.

(l) A uniform is authorized for Corps of School Cadet Instructors as follows: Jacket—Reefer or double-breasted pattern of blue black cloth or serge of ordinary civilian sackcoat length, fastened in front by two rows of four buttons each, of Canadian Militia pattern. Shoulder straps, blue crash with gilt metal rank badges. Trousers—Of serge to match colour of jacket, no stripe at seams. Cap—Field service, infantry, blue. Uniform and equipment will be provided by the officers of the corps as is done by other officers.''

(m) The Minister in Militia Council has decided that only those School Teachers who have qualified by attendance at a course of military instruction, and who are actually instructing *bona fide* organized and gazetted Cadet Corps, will be appointed to the Corps of School Cadet Instructors, with the rank of Lieutenant in the Militia. The mere fact of qualifying as a Cadet Instructor will not be considered sufficient for according militia rank.

#### SUB-TARGET GUN MACHINES.

(1) It is the desire of the Militia Department to place sub-target gun machines in those educational institutions which may have a teacher qualified as a military instructor.

(2) The space required in which to set up a sub-target rifle machine is  $61\frac{1}{2}$  feet from the centre of the base of the target, plus 5 or 10 feet for the recruits and instructor.

In many cases this accommodation is not available and it is suggested that these machines might be usefully employed in smaller space by,

(a) placing the target at the prescribed distance outside the building and aiming through a window.

(b) by placing the target beside or behind the machine and aiming at the reflection of the target in a mirror placed on the wall at half the prescribed distance.

(3) Forms for application for these machines may be contained from the D. A. A. G., M. P.

(4) When sub-target gun machines are out of working order, and the instructor is not able to make the repairs, a report to this effect should be made to the Senior Ordnance Officer, Halifax, N. S., so that an expert may be sent to place the machine in working order.

## CERTIFICATES, 1909.

Certificates awarded by the Department of Militia and Defence to teachers, and sent to the Education Office for distribution, since the publication of the last October JOURNAL OF EDUCATION.

## GRADE A.

No. 17483 L. A. d'Entremont, West Pubnico, N. S.

## GRADE B.

1292	Miss Evelyn Finn	} Mount St. Vincent, Halifax.
1293	" Teresa Nahrings	
1294	" Ellen Wood	
1295	" Eva Mary Murray	
1296	" Helen Hagan	
1297	" Katherine McManus	
1298	" Flora McDonell	
1299	" Sadie Fitzgerald	
1300	" Eleanor Sullivan	
1301	" Margaret Kelly	

Some of the Certificates announced in the last October JOURNAL have not yet been distributed, owing to the absence of the teacher's present address. The certificate would be lost in many cases, if sent out to the address given at the time of mailing. Hence they are retained until asked for.

COUNTY ACADEMY ENTRANCE EXAMINATION.

Regulations 61 of the C. P. I., (page 81), Manual of School Law) is repealed and the following substituted in its place:

The regular mode of admission into county academies shall be by an entrance examination in the last week of the school term in June, mainly on the subjects of Grade VIII. There shall be six subjects of examination, as follows, the questions being sent out from the education office:—(1) *Reading*—to be tested by the examiners on the Grade VIII reading, (*Second series* for 1910). [*Music*: Candidates known from individual or class exercises, or from reliable certificates, to be able to sing, especially when they have a practical acquaintance with any system of musical notation, may receive an extra mark as a bonus under this head at the option of the examiner, providing the *Reading* is passable. See also Reg. 99]. (2) *Language*. (3) *Drawing and Bookkeeping*. (4) *Geography and History*—Geography of Asia, Africa, Oceania, in detail, with a review of Canada. *History of Canada* (Hay or Calkin). (5) *General Knowledge*: (a) The five families, Crowfoot, Rose, Health, Violet and Lily; with the important native trees and the common weeds injurious to agriculture. (b) The common rocks and minerals of Nova Scotia. (c) A few of the common birds. (d) *Health Reader*, No. 2. (*Mechanic or Domestic or Rural Science*, or *Music* as in Regulation 99). 6. *Mathematics*.

COUNTY ACADEMY ENTRANCE EXAMINATION, TIME TABLE, JUNE, 1910.

DATE.	TIME.	SUBJECT.
Wednesday 29th June.	9 to 11 a. m.	2. English Language.
	2 to 3.30 p. m.	3. Drawing and Book-keeping.
	3.30 to 5 p. m.	4. Geography and History.
Thursday 30th June.	9 to 11 a. m.	6. Mathematics.
	2 to 3.30	5. General Knowledge.

1. READING to be examined at the end of each session, or whenever found most convenient by the Principal.

## PUBLIC SCHOOL PROGRAM.

FROM THE REPORT OF THE COMMITTEE ON COLLEGE ENTRANCE  
REQUIREMENTS, NATIONAL EDUCATION ASSOCIATION,  
U. S. A. 1899.

Three distinct terms seem to be needed:

(1) *Program of studies*, which includes all the studies offered in a given school;

(2) *Curriculum*, which means the group of studies schematically arranged for any pupil or set of pupils;

(3) *Course of study*, which means the quantity, quality and method of the work in any given subject of instruction.

Thus the *program* of studies includes the *curriculum*, and may indeed furnish the material for the construction of an indefinite number of curriculums. The *course of study* is the unit, or element, from which both the program and the curriculum are constructed.

## 154. HIGH SCHOOL PROGRAM FOR 1910-11.

(1) Description by drawing as well as by writing may be required in any question, and should always be used when brevity or clearness may be gained.

(2) The "High School Pass" in all grades shall be an average of 50% with no mark below 30% on a group of six subjects for Grades IX, X and XI; and a group of nine papers for Grade XII.

(3) The "Teachers' Pass" shall be an average of 60% on a group of six subjects in Grades IX, X, and XI, and on a group of nine papers for Grade XII with no mark below 40%. 50% however must be made on *English* in each grade for a "Teachers' Pass."

(4) Candidates may write on more than the six subjects or nine papers indicated in (2) and (3). In such cases the "pass" shall be determined by the group including the highest six subjects or the highest nine papers, as the case may be, providing *English* is one of the group.

(5) Two hours shall be given at examination for each paper which shall contain eight questions.

(6) When a candidate wishes to raise a "High School Pass" to a "Teachers' Pass," he shall be required to make a mark of at least 60 on each subject not previously up to this standard. That is, a "Teachers' Pass" by partial examinations will require at least sixty per cent. on every subject. This can be necessary only when a candidate is not writing for a higher grade, and therefore all such supplementaries can be taken on the papers of the regular examination.

(7) The "High School Pass" admits to the corresponding class in the Provincial Normal College, whose faculty can raise it to the "Teachers' Pass" on evidence of improved scholarship, without which the Normal diploma cannot be awarded.

(8) Candidates for Grade XII certificates (High School Pass) who fail on account of being too low in Foreign Languages but who have made the High School average pass on the other subjects, shall have the privilege of completing the pass at a subsequent examination by making at least 50% on each of the nine papers not previously up to this standard.

(9) Candidates for Grade XII certificates (Teachers' Pass) who fail on account of being too low in Foreign languages, but who have made a Teachers' average pass on the other subjects, shall have the privilege of completing the pass at a subsequent examination by making at least 60% on each of the nine papers not previously up to this standard.

(10) From one to three points may be added by the examiner for specially good writing. Bad writers have no right to be admitted to an examination except on certificate of physical defects, and if examined, the papers are subject to a deduction of marks. One point shall be deducted for every word misspelled.

(11) The High school subjects to be taught in a rural, or incompletely graded high school, shall be determined by the school board in agreement with the principal, with an appeal to the Inspector, and from him to the Council, in case of disagreement or dissatisfaction.

(12) Any subject deemed to be of importance in any community, may be put on the program of a school by the school board with the consent of the Education Department.

(13) No school is advised to undertake the work of Grade XII with less than a staff of four regularly employed high school teachers.

(14) A candidate who has taken Latin in Grade IX, may take the IX French paper instead of the regular one in Grade X, and the X French paper in Grade XI, provided a 60 or 50 per cent. mark is made respectively for a Teacher's or a High School Pass in each case.

### GRADE IX.

(English and any other *five* subjects imperative).

#### 1. ENGLISH:—

(a) LITERATURE—George Eliot's *Silas Marner* (edited by Herrick, Longmans, New York, \$0.25), and Scott's *Lay of the Last Minstrel* (Edited by Saul, Morang, Toronto, \$0.15), with critical study, word analysis, prosody and recitations. English Composition as in *Sykes*, to page 101, or an equivalent in the hands of the teacher, with essays, abstracts and general correspondence so as to develop the power of fluent and correct expression in writing.

(b) As in GRAMMAR—(except notes and appendix) with easy exercises in parsing and analysis.

2. LATIN:—As in *Collar and Daniell's First Latin Book*, to end of chapter L., or any equivalent grammar, with easy translation and composition exercises. [The *Roman* (phonetic) pronunciation of Latin to be used in all grades.]

3. FRENCH:—Bertenshaw's Grammar, Part I. and First Reader to page 56.

4. GEOGRAPHY:—Physical and Astronomical, General Geography of continents and British Empire in detail as in Calkin.

5. ARITHMETIC:—As in the *Academic* to page 63.

6. ALGEBRA:—As in Hall and Knight's *Elementary* to end of Chapter XVI.

#### 7. DRAWING:—

(a) As in Morton's *Mechanical Drawing*, with the construction of the figures in Euclid, Book I.

(b) High School Drawing Course, No. I, with model and object drawing and *Manual Training* No. 2.



8. SCIENCE: Botany—(5 Q.). Spotton (except Chap, XIX) and the study of the Wild Plants of the Phenological Observations, with Pteris, Aspidium, Asplenium, Onoclea, Osmunda.

Physics—(3 Q.). As in Primer or equivalent (winter months). Text to be used only as an aid to the study of the subject.

### GRADE X.

(English and any other *five* subjects imperative.)

#### 1. ENGLISH:—

(a) Same subjects as in previous grade, but more advanced scholarship required. Composition as in *Sykes*, or an equivalent in the hands of the teacher, with special attention to the development of readiness and accuracy in written narrative, description, exposition and general correspondence. For outside reading and theme writing: Dickens' *Tale of Two Cities* (edited by Buehler, MacMillans, Toronto, \$0.25).

(b) As in GRAMMAR:—Text book complete.

2. LATIN:—As in *Collar and Daniell's First Latin Book* complete, and "*Cæsar's Invasion of Britain*," by Welch and Duffield.

3. GREEK:—As in *White's First Greek Book*, lessons I to end of XLV.

Or FRENCH:—*Bertenshaw's Grammar*, Part II, and *Souvestre's "Le Chevrier de Lorraine."*

Or GERMAN:—As in *Joynes Meissner's Grammar*, first 25 exercises, with *Buchheim's Modern German Reader*, Part I., first division only.

4. HISTORY:—Review of British History as in "Outlines" or *Calkin's*; and oral lessons by teacher based on *Bourinot's "How Canada is Governed"* (three questions).

5. CHEMISTRY:—Inorganic, as in *Waddell* or *Williams*.

6. ARITHMETIC:—Text book complete.

7. ALGEBRA:—As in *Hall & Knight's Elementary* to end of Chapter XXVII.

8. GEOMETRY:—*Hall & Stevens' Euclid*, Book I, with all included exercises to the end of Proposition 48.

## GRADE XI.

(English and any other *five* subjects imperative.)

1. ENGLISH:—Shakespeare's *Julius Caesar* (edited by Odell, Longmans, \$0.25), Macaulay's *Addison* (edited by French, MacMillans, Toronto, \$0.25). History of English literature as in *Meiklejohn*. For outside reading and theme writing: Kingsley's *Hereward the Wake* (unabridged, "Everyman's Library").

2. LATIN:—Grammar and easy composition partly based on prose author read.

(a) *Cæsar's De Bell. Gall.*, Book I, (b) *Vergil's Æneid*, Book I, with grammatical and critical questions, (c) *First Exercise in Latin Prose Composition* by F. A. Wells (Geo. Bell & Sons London).

3. GREEK:—Grammar and easy composition based partly on author read and *White's First Greek Book* completed. *Xenophon's Anabasis*, Book I, with grammatical and critical questions.

or FRENCH:—*Berthon's Specimens of Modern French Prose* omitting IV, VI and X, and *A Travers le Canada* (Quatrième Livre de Lecture—Nelson & Son, or Mackinlay).

*Fraser and Squair's Grammar*, sections 227 to 344, with the corresponding exercises, pages 343 to 371; or a thorough review of *Bertenshaw's Grammar*, parts I and II, with exercises complete.

or GERMAN:—As in *Joynes-Meissner* to lesson 44, with *Buchheim's Modern German Reader*, Part I, complete. Review of Grade X German.

4. HISTORY:—General History, as in *Swinton*.

5. PHYSICS:—The Chapters on either (a) *Light and Sound*, or (b) *Electricity*, to be taken with the rest of the text, alternative questions to be given on (a) and (b).

6. PRACTICAL MATHEMATICS:—To be known as *Trigonometry and Mensuration*. As in *Murray's Essentials of Trigonometry and Mensuration*, excepting Chapter XI.

7. ALGEBRA:—As in *Hall & Knight's Elementary Algebra* to end of Chapter XL, except Chapter XXIX to end of XXIXd.

8. GEOMETRY:—*Hall & Stevens' Euclid*, Books II, III and IV, with all included exercises and the "theorems and examples" italicized following each Book from I to IV.

## GRADE XII.

(Leaving Examination).

[Nine papers out of fifteen on the following twelve subjects constitute a full course. The following subjects are imperative:—English, two foreign languages, one mathematical and one scientific subject; except that those who take both Latin and Greek may omit the scientific subject, and those who make an average of 70 (Teacher's pass) or 60 (H. S. pass) on English, with 5 more on each of the marks and averages determining the respective regular passes, may omit foreign languages].

1. ENGLISH (Two Papers): (a) Lounsbury's *English Language*, OR Bradley's *The Making of English*. History of English Literature as in Gwynn's *Masters of English Literature* (Macmillan Company, Toronto).

(b) Shakespeare's *As You Like It* (Edited by Phelps, Longmans, \$0.25); Palgrave's *Golden Treasury*, Book II (complete, edited by Bates, Longmans \$0.25), and Emerson's *Essays* (selected, edited by Holmes, MacMillan, \$0.25).

With the following books for outside reading and theme writing:—*Longer Narrative Poems* (edited by Jeffries, Morang, \$0.15), Holmes' *Autocrat of the Breakfast Table* (Everyman's Library), and Thackeray's *English Humorists* (edited by Bennett, Longmans, paper 0/3, cloth 0/6).

2. LATIN. (Two Papers): (a) Bennett's *Latin Grammar* or equivalent; Bradley's *Arnold's Latin Prose Composition* to end of exercise XXII; Sight Translation.

(b) Cæsar's *De Bell, Gall* II, III and IV; Virgil's *Æneid*, Books II and III.

3. GREEK (Two Papers): (a) A thorough review of *White's "First Greek Book,"* Sight Translation; *Easy Composition* partly based on the prose author read.

(b) Xenophon's *Anabasis*, Books II, III and IV.

4. FRENCH:—Sandeau's *Sacs et Parchemins* (edited by Pellissier, MacMillans Toronto, \$0.90); Corneille's *Polyeucte* (Edited Braunholtz, Pitt Press Series 2/-; Angier & Sandeau's *Le Gendre de M. Poirier* (edited by Preston, Blackie & Son, -/8); with questions upon grammar and composition as in Fraser and Squair's *Grammar*, sections 345 to 461, with the *Composition* exercises from page 371 to page 394.

5. GERMAN:—Buchheim's *Modern German Reader*, Part II to end of selection 10 second division; and Schiller's *Wilhelm Tell*, Acts I, II, III, and IV (edited by Carruth, MacMillans, \$0.60 ) *Grammar and Composition* as in Joynes-Meissner.

6. ALGEBRA:—As in *Hall and Knight's Senior Matriculation Algebra*. (MacMillan, \$0.90.)

[A reprint of the first 19 chapters of the old and larger text.]

7. GEOMETRY:—As in *Hall and Stevens' "Euclid I to VI and XI"*, omitting demonstrations of V, unsolved exercises in "Theorems and examples on Books VI", and the more cumbersome half of the subsequent three collections of exercises.

8. TRIGONOMETRY:—(a) *Plane* as in *Murray's Plane and Spherical*. (b) *Spherical* as in *Murray's Plane and Spherical*, Chapters I, II, III, and IV.

9. PHYSICS:—As in Goodspeed's Gage's *Principles of Physics*.

10. BOTANY:—As in Bergen and Davis' *Principles of Botany*.

11. CHEMISTRY:—As in Smith's "General Chemistry for Colleges".

12. HISTORY:—Myer's *Ancient History* (revised edition), Parts I, II and III.

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(SCHEDULE B.)

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PRESCRIBED FORM FOR PROVINCIAL HIGH SCHOOL EXAMINATION.

AT.....STATION.

To.....Inspector of Schools:

.....May, 191

I,....., a duly licensed teacher of Class....., do hereby certify that the candidates whose names are given below from No. I to No..... inclusive, will, to the best of my knowledge, have completed, before the date of next exam-

ination, the Prescribed Course of Study up to and including the Grade for which each applies; and furthermore, according to my judgment, both the *reading* and *writing*\* of each candidate are up to the standard desirable to be maintained for promotion in the High Schools of the Province.

I also forward herewith on behalf of these candidates . . . . . dollars, being the amount of fees required under sub-section (b) of Regulation 85, "Provincial Examination of High School Students," as specified in the list below.

Candidates intending to take the M. P. Q. Examination (fee \$2.00, payable to the Deputy Examiner at Examination) are indicated by the letters M. P. Q., in the column headed "remarks" below.

Signed . . . . .

*Principal* . . . . . *School* . . . . . *Co.*

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SYLLABUS

OF

THE ACADEMIC HEADMASTER

OR UNIVERSITY POST-GRADUATE EXAMINATION.

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110. (b). The testing provincial post-graduate examination shall be upon two series of papers—the *higher* of University "graduation distinction" standard, the *lower* of University "graduation pass" standard. The post-graduate examination "pass" shall require:—

1. A provincial pass (50%) in at least *one subject* of the higher standard.
2. A provincial pass in *five other subjects* of the Lower standard.
3. Certificates of the following University courses taken and passed by candidates shall be imperative and must be

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\*If a candidate has a physical defect preventing good reading or writing, application may be made if qualified by, and accompanied with, a particular and authentic description of the case for the consideration of the Education Department.

taken later than the first year of the University course, namely:—Logic and Psychology, and any two of the following: Ethics, Political Economy, Sociological Science, Modern Philosophy, History.

#### 4. SYLLABUS OF THE HIGHER STANDARD.

[Two papers, three hours long, on each subject.]

##### ENGLISH. I.

(A) History of the English Language as in Lounsbury's "English Language" or "Emerson's History of the English Language."

(B) History of Nineteenth Century English Literature, as in Herford's "The Age of Wordsworth" (1798-1832, and Walker's "The Age of Tennyson" (1830-1870).

(C) A thorough knowledge of the following works:—Dowden's "Selections from Wordsworth," Browning's Shorter Poems by Baker, Tennyson's Shorter Poems by Nutter, Palgrave's Golden Treasury of Songs and Lyrics (Book IV), Pancoast's "Standard English Prose" (the selections from Lamb to Stevenson).

(D) Ten Brink's History of Early English Literature (Vol. I).

(E) Bright's Anglo-Saxon Reader (the introduction and Parts I, II, and IV).

(F) Morris' Specimens of Early English Part I (Extracts ix to xviii inclusive).

[N. B. All candidates are expected to have a thorough knowledge of the principles of Composition. To ensure the possession of this knowledge and of the ability to make practical use of it, the writing of an Essay on some one of several given subjects will form an important part of this examination.]

##### II. AND III.—FOREIGN LANGUAGES.

Translation at sight, from any ordinary authors, with Grammar (including Prosody), Composition, and a fair knowledge of the national, social, institutional and literary history of the people whose language is dealt with, in any two of the following languages:—Latin, Greek, French, German.

[Extracts will be set from at least three prose and three poetical authors in each language. In French and German the candidates' ability to use the spoken language may be tested by one or more questions requiring *viva voce* examination.]

## IV.—MATHEMATICS.

- (A) Algebra, Geometry and Trigonometry as in *Grade XII*.
- (B) Plane and Solid Analytical Geometry, including the general equation of the second degree. Differential and Integral Calculus, as in Murray's *Infinitesimal Calculus*.

## V.—SCIENCES.

Any one of the following:

## PHYSICS.

(A) A knowledge of *General Physics*, as in "A Textbook of Physics" by Watson (unstarred sections), or any equivalent.

(B) The presentation of note-books describing the *laboratory experimental work* of the candidate, duly certified by the Instructor the work to consist of at least 50 experiments of recognized University grade (e. g. as in Ames and Bliss' "Manual of Experiments in Physics"). In cases where the candidate cannot present notebooks satisfactory to the examiner, the test may be made by a practical laboratory examination.

(C) *Elementary Mathematical Physics*. A knowledge of the results obtained by the application of elementary mathematics to physical problems; such as might be obtained during a course of lectures of two or three hours per week running through two years. The grade of work such as is given in Preston's "Theory of Heat," Preston's "Theory of Light," and J. J. Thomson's "Elements of Electricity and Magnetism," or their equivalents.

## CHEMISTRY.

(A) *Inorganic Chemistry* as in Smith's "General Inorganic Chemistry," or an equivalent, with laboratory work in General Chemistry, which should include the preparation of some typical gases, acids, and salts, and at least five or six quantitative experiments in illustration of the fundamental laws of Chemistry. The laboratory work may be partially tested by requiring the candidate to produce a properly certified record of his experimental work.

(B) *Organic Chemistry* as in Remsen's "Compounds of Carbon" or an equivalent, to be accompanied by laboratory work, which should include the preparation of at least 20 typical carbon compounds. The laboratory work may be tested partly by questions in the papers on Chemistry, and partly by requiring the candidate to produce specimens of his preparations properly certified to be his own work.

(C) *Analytical and Physical Chemistry*, including:—

1. *Qualitative Analysis* of the common acids, and bases. Candidates may be tested by a practical laboratory examination and by questions in the Chemistry papers
2. *Quantitative Analysis*. The estimation of the following elements in their common compounds:—Chlorine Sulphur, Phosphorus, Carbon (in carbonates), Silicon, Silver, Copper, Calcium, Magnesium, Lead, Iron; Carbon and Hydrogen in organic compounds. Candidates may be tested by a practical exercise in the laboratory and by question in the Chemistry papers.
3. *Physical Chemistry*, as in Talbot and Blanchard's "Electrolytic Dissociation Theory" and "Walker's Introduction to Physical Chemistry."

(D) *Outlines of History of Chemistry*, as in Tilden's "Short History of Scientific Chemistry," Thorpe's "Essays in Historical Chemistry" and "Justus von Liebig" and "John Dalton" in the Century Science Series.

#### BIOLOGY.

(A) *Botany* as in *Principles of Botany and Laboratory and Field Manual* by Bergen and Davis. A practical knowledge of the system of classification and the use of manuals, as Gray's. An acquaintance with (a) the common Spermatophytes and Pteridophytes of Nova Scotia, and (b) type species of native Byrophytes and Thallophytes representing the more common classes or orders. The exhibition of, and examination upon, a collection of one hundred species correctly determined and well mounted by the candidate under (a), and of another hundred (counting microscopic slides) also mounted and determined under (b).

(B) *Zoölogy* as in *Zoölogy Descriptive and Practical* by Colton, and *Hand-Book of Instructions for Collectors* issued by the British Museum (Natural History). A practical knowledge of the system of classification and the use of manuals, as Jordan's.



An acquaintance with (a) the more common vertebrate fauna of Nova Scotia, and (b) typical species of the more common classes or orders of the native invertebrates. The exhibition of at least fifty specimens under (a), and at least fifty microscopic or macroscopic specimens under (b), all correctly determined and neatly mounted or prepared.

(C) *Outline History of Biology*, as in "Science of Life" by Thompson, or an equivalent, with latest theories. *Bacteria in Relation to Country Life*, by Lipman.

[The candidate must show his ability to dissect macroscopically and microscopically, to make microscopic sections, and have an elementary knowledge of microscopic technique. A monograph upon, or a special study of, any biological group or species, may be accepted according to its merits as supplementing defects in collections, etc. Any original work showing a knowledge of the subject will enhance the candidate's standing.]

#### GEOLOGY AND MINERALOGY.

As in *Introduction to Geology* by Scott, *Physiography* by Salisbury, and *Mineralogy*, as in *Minerals and How they Occur* by Miller, A laboratory knowledge of the rocks and minerals of the province, and field knowledge of the results of forces changing the surface of the earth.

#### 5. SYLLABUS OF THE LOWER STANDARD.

[One paper three hours long on each subject, supplemented by *viva voce* examination and practical demonstration at the option of the examiner.]

##### I. - ENGLISH.

As in (A), (B) and (C) of the Higher Standard.

[All candidates are expected to have a thorough knowledge of the principles of Composition. To ensure the possession of this knowledge, and of the ability to make practical use of it, the writing of an Essay on some one of several given subjects will form an important part of the examination.]

##### II. AND III. - FOREIGN LANGUAGES.

As in the higher standard but with easier questions. In French and German the candidate's ability in the spoken language may be tested by one or more questions requiring *viva voce* examination.

## IV.—MATHEMATICS.

As in (A) of the higher standard.

## V. AND VI.—SCIENCES.

Any *two* of the following:—

*Physics*: As in (A) of the higher standard.

*Chemistry*: As in (A) of the higher standard: omitting the sections of the text-book in small print.

*Biology*: As in "First Course in Biology" by Bailey and Coleman, "Practical Botany for Beginners," by Bower, "Animal Life" by Jordan and Kellog, and a knowledge of the use of manuals in the classification of the more common species of the Nova Scotia *Flora* and *Fauna* as in Gray and Jordan respectively or equivalents.

[For the foreign species worked out in the Practical Botany text the nearest native species obtainable shall be studied in the same way, practically. The same principle holds in zoological practical studies.]

*Geology*: As in the first xxiv chapters of Scott's "Introduction to Geology," and Miller's "Minerals and How They Occur."

## 6.—NON-GRADUATE CANDIDATES.

Candidates who have not graduated from a recognized University, if they have spent at least four Academic years in study after attaining the Grade XI standard of scholarship, and have obtained a pass on Grade XII and a pass on the testing provincial post graduate examination, may be admitted to a special examination on the remaining subjects of a full University course, in order to obtain the standing of a graduate of a recognized University under those regulations. But the cost, syllabus and time of any such examination have not at present been determined.

## 7.—GENERAL RULES OF EXAMINATION.

(a) Options will be given when questions deal with minute details in subjects of wide range, in the sciences especially, with the object of equalizing the effects of different instructors, and texts are mentioned merely to indicate the comprehensiveness and intensiveness of the study required.

(b) An average of fifty per cent. on all subjects, with none below forty on the lower series, is required for a pass, provided the candidate also passes in the practical and *viva voce* examination.

(c) If a candidate fails in not more than two subjects, he may take a supplementary on the subjects failed in, but will make a pass only when *no* subject is below fifty per cent.

(d) The examination will be held in Truro during Provincial Examination week and the week following, in proximity to the Provincial Normal and Agricultural Colleges, for the convenience of laboratory demonstration and *viva voce* examination.

(e) A *preliminary notice* stating the intention to make application, and specifying the details to be proven and subjects to be taken, should be sent in to the Superintendent not later than the first day of March preceding.

Application for examination should be made to the Superintendent of Education before the first day of May, stating the higher and lower subjects to be written upon, and *furnishing proof*

- (1) of having matriculated into a University on a standard practically as high as the pass of Grade XI of the Provincial High School,
- (2) of having taken thereafter a full course of four academic years, three of which must have been the second, third and fourth years of the University course, and (3) of graduation as recognized in Regulation 110 (a) 2, preceding.

(f) There shall be no fee for examination.

PUBLISHERS OF TEXTS MENTIONED.

Emerson's "History of the English Language" . . . . . (Macmillan).  
 Herford's "The Age of Wordsworth" . . . . . (Bell & Sons).  
 Walker's "The Age of Tennyson" . . . . . (Ginn & Co.).  
 Dowden's "Selections from Wordsworth" . . . . . (Macmillan).  
 Baker's Browning's Shorter Poems . . . . . (Macmillan).  
 Nutter's Tennyson's Shorter Poems . . . . . (Macmillan).  
 Palgrave's "Golden Treasury" . . . . . (Holt & Co.).  
 Pancoast's "Standard English Prose" . . . . . (Bell & Sons).  
 Ten Brink's History of English Literature . . . . . (Holt & Co.).  
 Bright's Anglo Saxon Reader . . . . . (Clarendon Press.)  
 Murray's Specimens of Early English, Part I . . . . . (Longmans).  
 Murray's Infinitesimal Calculus . . . . . (Longmans).  
 Watson's Text Book of Physics . . . . . (Macmillan).  
 Preston's "Theory of Heat" . . . . . (Macmillan).  
 Preston's "Theory of Light" . . . . . (Macmillan).  
 J. J. Thomson's "Elements of the Mathematical Theory of Electricity and Magnetism" . . . . . (Cam. U. Press).

- Smith's "General Chemistry"..... (Century Co.).  
 Smith's "General Inorganic Chemistry"..... (Century Co.).  
 Remsen's "Compounds of Carbon"..... (D. C. Heath Co.).  
 Talbot and Blanchard's "Electrolytic Dissocia-  
 tion Theory"..... (Macmillan).  
 Walker's "Introduction to Physical Chemistry" (Macmillan).  
 Tilden's "Short History of the Progress of Scien-  
 tific Chemistry"..... (Longmans).  
 Thorpe's "Essays in Historical Chemistry".... (Macmillan).  
 Shenstone's "Justus von Liebig" in Century  
 Science Series ..... (Macmillan).  
 Sir H. E. Roscoe's "John Dalton" in Century  
 Science Series ..... (Macmillan).  
 Bergen and Davis, Botany and Laboratory  
 Manual ..... (Ginn & Co.).  
 Gray's Manual of Botany (Seventh Edition) ... (Am. Book Co.).  
 Jordan's "Manual of Vertebrates"..... (McClurg & Co.).  
 "Bacteria in Relation to Country Life" by Lipman (Macmillan).  
 Colton's "Zoology Descriptive and Practical".... (D. C. Heath Co.).  
 Bailey and Coleman's Biology..... (Macmillan).  
 Thompson's "Science of Life"..... (Blackie & Son).  
 Jordan & Kellog's "Animal Life"..... (D. Appleton).  
 Bower's "Practical Botany for Beginners".... (Macmillan).  
 Hand Book of Instructions for Collectors..... (Brit. Museum).  
 Scott's "Introduction to Geology"..... (Macmillan).  
 Salisbury's "Physiography"..... (H. Holt & Co.).  
 Miller's "Minerals and How They Occur"..... (Toronto).

TIME TABLE OF THE  
 ACADEMIC HEADMASTER EXAMINATION, 1910,  
 AT THE NORMAL COLLEGE, TRURO.

July 4	9 to 12 A. M.	Greek (higher, A) and Greek (lower).
	2 to 5 P. M.	German (higher, A) and German (lower).
July 5	9 to 12 A. M.	Latin (higher, A) and Latin (lower).
	2 to 5 P. M.	French (higher, A) and French (lower).
July 6	9 to 12 A. M.	English (higher, A) and English (lower).
	2 to 5 P. M.	Mathematics (higher, A) and Mathematics (lower).
July 7	9 to 12 A. M.	Science (higher, A) and Physics (lower).
	2 to 5 P. M.	Science (higher, B) and Latin (higher, B).
July 8	9 to 12 A. M.	English (higher, B) and Mathematics (higher, B).
	2 to 5 P. M.	Greek (higher, B) and French (higher, B).
July 9	9 to 12 A. M.	German (higher, B) and *Chemistry (lower)
	2 to 5 P. M.	*Biology (lower) and *Geology (lower).

\*If these papers cannot be given out because some candidate desires to take an examination in the simultaneous paper, they will be given to candidates at an hour announced by the examiner in charge, possibly on Monday or Tuesday following.



## Rural Science School.

AFFILIATED WITH THE PROVINCIAL NORMAL AND AGRICULTURAL COLLEGES AT TRURO, 12TH JULY TO 12TH AUGUST, 1910.

The next Session of the Rural Science School will be held from July 12th to August 12th, 1910.

The syllabus of the Rural Science Diploma Course is presented below. The Daily Time Table will be so arranged that students in attendance may take also the classes in Physical Training and qualify for the Physical Training Certificate. In addition, optional classes will be provided in Music and Photography, and it is contemplated that for the benefit of those who may not have attended the Normal College, classes in Pedagogy will be arranged.

### RURAL SCIENCE DIPLOMA COURSE.

Courses will be offered in the Principles and Applications of Nature Study, General Biology, Botany, School Gardening, and Horticulture, Agriculture, Physics, Chemistry, Bird and Insect Study, Geology and Mechanic Science.

These Courses, one or all, will be free to teachers or intending teachers, and may be taken by:—(a) those who merely wish to extend their knowledge for teaching purposes; (b) those who wish to proceed to the full qualification required for a Rural Science Diploma.

The work is so arranged that it will be possible for almost any teacher to complete the requirements for this Diploma in three summers, or for one already proficient in the subjects to do so in one term.

During the term, as a rule, the time in the forenoons—six days in the week—will be devoted to class work. The afternoons—five days in the week—to field excursions and individual work in the laboratories.

The tests required for the Rural Science Diploma will be regular attendance at the class instruction and in the laboratories; a satisfactory report by the instructors on the class, laboratory and field work of the student and the passing of an examination at the close of the term upon the topics of the following syllabus. Due allowance will be made for reading and study along the lines of the course, which a student may prove that he has done, between terms. In this connection books of reference are mentioned under each subject.

## SYLLABUS.

### NATURE STUDY.

#### Aims and purposes of Nature Study.

Distinction between Nature Study and information about nature on the one hand and formal science on the other.

Stages in Nature Study lessons:—(1) observation (as active experience), (2) reasoning upon the material observed or actions performed, and (3) expressing the observations, actions, judgments, applications, in the most suitable or by different modes.

Observation in the limited sense distinguished from experiment.

Nature Study, a method of teaching by environment and experience, rather than a mass of knowledge about nature.

Environment and experience considered and analyzed as the field of Nature Study from the point of view of subject matter.

How geography (in part), physiology (in large part), arithmetic (in part), may be taught as Nature Study.

The correlations of Nature Study with literature, the expressive arts, arithmetic, mechanic and domestic science, and agriculture.

The preparation of the Teacher:—Proficiency in heuristic (investigational) as distinguished from informational or memoriter methods of instruction; elementary knowledge of the sciences; knowledge of the use of manuals and books of reference with a view—not to acquire knowledge to restate to the pupils but—to guide them in their investigations.

The place of Nature Study in the Time Table.

Tests of the results.

Nature of aids and proper methods of using them:—Books, pictures, microscopes, aquaria, terraria, museum, etc.

The use and abuse of collections.

Reference Book:—*Nature Study* Dearness (Copp, Clarke Co), Toronto.

#### GENERAL BIOLOGY.

Organization as a product of life.

Organic versus inorganic matter.

Protoplasm.

Cell, tissue, organ; a plant, an animal as biological units.

Chief distinctions between plants and animals.

Nutrition, reproduction, sensation and volition as groups of vital activities.

Parasitism.

Characteristics of large divisions of plants and animals:—one-celled plants, algae, fungi, mosses, ferns, conifers, seed-plants one-celled animals, radiates, neuropods (bi-lateral invertebrates), haemipods (vertebrates), and of the large divisions of the vertebrates.—fishes, amphibians, reptiles, birds and mammals.

Reference.—See under Botany.

## BOTANY.

Life history of a typical dicot, monocot, conifer, fern and fungus.

Nature and significance of plant societies and associations.

Characteristics of annual, biennial, perennial; herb, shrub, tree.

Organography of seed-bearing plants; form and function of chief parts of plant body, shoot, bud, root, flower and seed. Seed dispersion.

Pollination, fertilization, germination.

Carbon-foods of plants, respiration, transpiration; chlorophyll, starch, sugar.

Use of a systematic key to identify flowering plants, including composites, grasses and ferns.

Sufficient acquaintance with the following to recognize them:—  
common weeds, useful plants and trees of the gardens, fields, orchards and woodlands of the neighborhood.

Phenology of common native plants.

Since the "Seed Control Act" has come into force, farmers throughout the Dominion of Canada have become greatly interested in weeds and weed seeds. Teachers will, accordingly, find that a knowledge which will enable them to identify all plants, whether beneficial or injurious to the farmers' interests, will not only be valuable, but will be greatly appreciated by farmers whose children will engage in this study in the common schools. The same may be said in regard to a knowledge of such plant diseases as Black Knot, Apple Scab, Wheat Rust, or Smut, etc., all of which will be studied in the course of Biology and Botany.

Reference Books:—The Principles of Botany, Bergen and Davis, (Ginn & Co. Boston).  
Biology, Bailey and Coleman. (MacMillan & Co., New York).  
Gray's New Manual of Botany, 7th Edition. (American Book Co., New York).  
Farm Weeds (Department of Agriculture, Canada).

## SCHOOL GARDENING AND HORTICULTURE.

The educational uses of the cultivation of plants; mental, moral, physical and economic values. The school garden a nature study laboratory.



Indoor gardening:—The preparation of the soils for potting and seed-planting; putting plants and seeds in pots and window boxes and their care and management.

Study of the germination of seeds and the transplanting, potting and re-potting of plants. Testing the vitality of seeds.

The Outdoor School Garden:—Consideration of the situation, size, preparation and fertilization of the soil; selection of suitable kinds of flowers and vegetables; planning and laying out the garden; planting and seeding the plots and borders; subsequent cultivation and care of the garden.

Study of the propagation of plants by seeds, cuttings, budding and grafting.

The Home-Garden plot as supplementary to the School garden or as a substitute for it when the latter cannot be had.

Relation of insects to the plants of field, orchard and garden. Fungous diseases of economic plants.

Arbor Day. Tree raising, tree planting, care of trees.

Reference Book:—*The Nursery Book*. Bailey. (MacMillan & Co).

#### INSECTS.

The economic phases of insect life will receive special attention.

Mutual relations of insects and plants.

Study of at least twenty-five insects in respect to metamorphoses and foods.

Study of certain insects, beneficial or injurious, in field, garden, orchard, forest and home.

Structure and adaptations to environment.

Classification so far as to enable a student to place the common insects in their natural orders and families and the collecting representative of the common orders. In connection with this work the class will study means of combating insect pest.

Reference Book:—*Entomology for Beginners*. (Puckard, Henry Holt & Co., N. Y.)

## BIRDS.

In this course emphasis will be placed on the study of birds as living animals.

Methods of bird-study in the field.

The careful field-study—appearance, song, flight,—of several birds of economic interest, our game birds and their protection.

The complete life-history of at least two quite different species of bird.

Nesting habits, song, migration and economic values of birds.

Structure of bill, wing, leg, feathers and adaptations to environment.

Recognition of our common birds.

Classification:—The characters of the orders represented in Nova Scotia,—the perchers especially.

Reference Book:—Birds of Eastern North America, Chapman. (D. Appleton & Co.)

## AGRICULTURE.

The types of farming suited to Nova Scotia with a consideration of the underlying principles. Comparison of the methods pursued by farmers in the various parts of the Province. Observation of the methods practised at the College Farm.

Field Crops:—The characteristics of the different crops; the methods of successful cultivation of each.

Fertility of the Soil:—Its development and maintenance; the principles of the various tillage operations, drainage, rotation of crops, fertilizers.

Implements and labor-saving machinery.

Animal husbandry:—The economic principles involved; types and breeds of farm animals including poultry; the necessity of an ideal and the methods of realizing it; principles of feeding and management. Observational study of the animals on the Experimental Farm.

Reference Books:—*Agriculture, Vol. I, II*, Brooks. (King-Richardson. Springfield Mass.)  
*Types and Breeds of Farm Animals*, Plumb.  
 (Ginn & Co.)  
 Other books well be recommended.

## GEOLOGY.

The study of the soil as disintegrated rock:—silicates, limestone, gypsum, etc. The rocks to be studied from specimens and as far as possible in their native situation.

Typical geological formations; examination of the local ones; illustration of strata, folds, dip, fracture, weathering, etc.

Formation of river-valley, intervale, salt-marsh, springs.

Study of the nature and significance of some of the common fossils found in our coal and limestone beds.

Review of the geological map of the Province,—each student to study particularly the part of the map treating of his own neighborhood.

Reference Book:—*Introduction to Geology*, Scott. (Mac-Millan & Co., N. Y.)

## PHYSICS.

Making and recording observations upon the elements of weather:—temperature, moisture, pressure, wind, cloud, etc.

The principles and the methods of using instruments to measure temperature, moisture, etc. Methods of improvising simple forms of some of these instruments.

Practice in making deductions from the various records kept.

The causes and movements of storms.

The study of the principles of mechanics, pressure, force,—lever, wheel, screw, etc,—as applied to farm machinery, pumps, etc.

(Note.—Students are supposed to begin this course with a fair knowledge of the elementary principles of physics, heat, electricity).

Reference Books:—*Practical Physics*, Chute. (D. C. Heath & Co.)

*The Story of the Atmosphere*, Douglass. (Appleton & Co.)

*Any good Elementary Treatise on Mechanics.*

#### SOIL PHYSICS.

The methods of taking samples of soil.

Mechanical analysis of three typical soils.

Determination of the percentage of air and water in soil.

Temperature of soil and its modifying factors.

The effects on clay of lime, salt, gypsum and humus.

The relation of size of particles of soil to water-holding power

The capillarity of at least two kinds of soil and the rate of percolation through them. Power of air-dry soils to absorb water.

Texture of soils—heavy and light

Soil Solutions.

Reference Books:—*The Soil*, King. (MacMillan & Co.)

#### CHEMISTRY.

A laboratory course in the chemistry of the farm and home based on the facts and laws of the science as mastered in the high school course.

The chemistry of lime as used in whitewash, disinfectant, Bordeaux mixture and cement.

The chemistry of carbon; combustion; comparison of fuels.

Water,—qualities of different kinds, testing purity and hardness.

Soap-making.

Plant and animal products,—testing for potash, phosphoric acid, nitrogen, iron, carbon, calcium in bone, seeds, etc. The chemistry of starch, sugar, fat, proteid, milk.

## Fermentation.

Ultimate and proximate composition of soil.

The chemistry of fertilizers,—testing for elements as above, in plant and animal products. Examination of a few commercial fertilizers.

A few simple experiments to illustrate the chemistry of fungicides, insecticides, paint, dyes, food-preservatives.

Reference Book:—*Chemistry of Plant and Animal Life*, Snyder. (MacMillan & Co.)

## BACTERIOLOGY.

An introductory study of bacteria.

Relation to health and disease.

The bacteria of the soil; nitrification; denitrification; nitrobacteria in their relation to leguminous plants; conditions favorable to growth of desirable soil-bacteria.

Bacteria in relation to dairying.

Methods of disinfection.

Reference Book:—*Bacteria in Relation to Country Life*, Lipman. (MacMillan & Co.)

## MECHANIC SCIENCE.

Brush Drawing:—Materials, their preparation and use. A short course in impression work and brush drawing proper. Applications to nature work in the other courses.

Paper and Cardboard Modeling:—The necessary drawings for the development of models. The manipulation of tools and materials. Students to make, at least, ten flat and six solid models and one exercise in book-binding.

Wood-work:—The use of the tools. Students to make plant-press, insect-box. and spreading board, or equivalent models.

Reference Book:—*The Theory of Educational Sloyd*, Otto Salomon. (Geo. Philip & Son, London, Eng.)

FACULTY OF THE RURAL SCIENCE SCHOOL WILL BE  
AS FOLLOWS:

M. CUMMING, B. A., B. S. A., *Director and Lecturer in Agriculture and Bacteriology.*

C. L. MOORE, M. A., *Vice-Director and Lecturer in Biology.*

Assisted by the members of the Faculties of the Provincial Normal and Agricultural Colleges.

F. G. MATTHEWS, *Instructor in Mechanic Science, Music and Photography.*

Should there be a large enrolment of students, a further number of lecturers will be secured, whose names will be announced later. IN THIS CONNECTION, IT WILL GREATLY ASSIST THE MANAGEMENT IF INTENDING STUDENTS WILL MAKE APPLICATION FOR ENTRANCE ON OR BEFORE JUNE 25TH. Students can, however, apply for entrance up to and including the opening day of the course.

In order to minimize the expenses of teachers attending this course, the Provincial Government will pay transportation charges (railway, steamer and coach fares), of all teachers who complete the Course to the satisfaction of the instructors. Attention is also called to the fact that, under regulation 138 of the School Law, an additional week or two weeks of vacation may be obtained by teachers taking the Summer Course.

While this course is arranged primarily for teachers, yet any one who is interested in the study of science may attend the classes and receive a full share of attention from the instructors.

Railways will grant to all attending these classes a single fare on the Standard Certificate Plan. Those attending should therefore be sure to obtain the "Standard Certificate" when purchasing a ticket, for only the necessary transportation expenses of teachers can be paid.

For further particulars apply to:—

DAVID SOLOAN, LL. D.,  
Principal Normal College,  
Truro, N. S.

M. CUMMING, B. A., B. S. A.,  
Principal Agr. College,  
Truro, N. S.

A. H. MACKAY, LL. D.,  
Supt. of Education, Halifax, N. S.

## SUPPLEMENTARY CLASSES.

(a)

## PHOTOGRAPHY AND MUSIC.

Should there be a sufficient enrolment, classes in Music (Tonic-Sol-Fa) and Photography will also be provided.

(b)

## PHYSICAL DRILL.

Proficiency in physical exercises is to be imperative on all public school teachers. To give greater effectiveness to the regulations in the school-law dealing with physical drill in the schools, it is purposed, with the co-operation of the Militia Department of Canada, to provide an instructor in this branch during the session of the summer classes at the Provincial Institutions in Truro. Teachers will thus be enabled to qualify as instructors in physical drill in their schools as required by the new law.

(c)

## CLASSES FOR BILINGUAL TEACHERS.

Classes in language-methods for bilingual teachers in Acadian schools will open on Tuesday, July thirteenth, and continue till Thursday, August twelfth. Applications for admission should be sent as early as possible to the principal of The Provincial Normal School, Truro.

In view of the very attractive program of work offered this summer in the department of advanced biology, elementary agriculture, nature-study, music, manual training, and physical drill, it is expected that the attendance will be large.

Our Acadian teachers, it is expected, will avail themselves as fully as possible of the opportunities offered in the above classes, carrying back to their schools not only improved methods in language-teaching, but an increase of knowledge, a wider range of interests, and an enthusiasm which will place their schools in the forefront of public educational effort.

The new French Readers cannot be legally used in Acadian Schools if the teachers are not able to teach English effectively in colloquial fashion, as indicated in the Report of the Acadian Commission, 1902, unless they are qualified or have tried to qualify by taking this course.

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In the language course, model classes of French pupils will be conducted by pupil-teachers, under the direction of the principal of the school.

Travelling expenses at five cents per mile will be paid to students who are regularly employed teachers in Acadian communities, and who speak both languages with fair fluency.

Under regulation 138 an additional week of vacation may be obtained by teachers taking the summer course.

For particulars respecting the Bilingual School apply to

DAVID SOLOAN, LL. D.,  
Principal, Normal College,  
Truro, N. S.

Or to the Instructor,

MR. LOUIS A. D'ENTREMONT,  
West Pubnico,  
Yarmouth Co.



## Summer School of Science.

The twenty-fourth session of the Summer School of Science will be held at Liverpool, N. S., July 13th to August 3rd. The following subjects are studied at the school.

Agriculture, Botany, Geology, Literature, Physical Science, Physiology, Zoology, Entomology, Drawing, Military Drill, and Physical Culture. The following are the Faculty, Prof. W. W. Andrews, LL. D., L. A. DeWolfe, M. Sc., D. S. McIntosh, M. Sc., S. A. Starrat, B. Sc., G. J. Oulton, M. A., and P. Barlow.

During the session of the School candidates can qualify for the Elementary Certificate for Military Drill and Physical Culture.

Eighteen Scholarships of from \$10.00 to \$20.00 will be offered for competition.

Liverpool offers unrivalled attractions both in climatic conditions and scenery for a summer meeting.

The expenses will be moderate. The Secretary, Mr. J. D. Seaman, 63 Bayfield Street, Charlottetown, P. E. I., will give any information in reference to the School.

In preparing for a "Rural Science" diploma, granted only after examination and certification by the Rural Science School in affiliation with the Normal and Agricultural Colleges at Truro, time certified as being in attendance at this summer school on which a satisfactory examination has been passed and certified, will be accepted as the equivalent of the same time required at the Rural Science School itself.

An extra week of vacation may be obtained according to Regulation 138 when a satisfactory Course has been followed and passed.

### RECOMMENDED TO TEACHERS AND FOR SCHOOL LIBRARIES.

*Elementary Agriculture and Nature Study* (New Brunswick Edition) by John Brittain D. Sc., of the Macdonald College, (6x8 inches, pp. 318, Educational Book Co., Toronto). The conditions of Nova Scotia and New Brunswick are so similar, that this text will be practically, as useful here as there.

*English Spelling and Spelling Reform* by Thomas R. Lounsbury. Emeritus Professor of English in Yale University, 5½x8 inches, 357 pages, Harper & Brothers, New York and London, \$1.50.

This is the most generally interesting and practically valuable work of this eminently popular world-wide acknowledged authority on English. Every teacher who has to teach, or correct, or talk on or about English spelling, should know what is in this book. So should every educated man, writer, editor and thinker who loves the English language and would save it from the handicap of its orthographic diseases. It should be in every school library.

*British Physical Education for Girls.* 320 pages, 6x9 inches, on very superior paper, profusely illustrated, with songs and music, by A. Alexander, F. R. G. S., and Mrs. Alexander, Principals Southport Physical Training College; late Principals Liverpool Gymnasium; Authors of "Physical Training for Children"; "Healthful Exercises for Girls"; "Modern Gymnastic Exercises", etc., etc. Published by McDougall's Educational Company, Limited, London and Edinburgh.

The preface is written by Dr. Paul Diebow, Director of the Royal Gymnastic Institute, Berlin, and Physical Training Expert to the German Government.

It is the best looking and most comprehensive book on the subject for Ladies' Colleges, Normal Schools, and even ordinary public schools, of any we have had the opportunity of examining. It will undoubtedly be a good book for every school library as well as for the teacher.

#### THE ITINERANT AGENT.

From time to time complaints have reached the Education Office, of Agents with expensive and generally useless books or other nostrums, who are in the habit of visiting schools and using the name of educational officials as a guarantee of the value of what they offer.

This is to warn all teachers, and especially the young or inexperienced, not to have any dealings with such persons. In the JOURNAL will be found all the books recommended by the educational authorities. If a teacher wishes to add to her library, it will be safer to buy through a reliable local dealer, than from an irresponsible itinerant agent, who should never be permitted to intercept the school for a moment.



# JOURNAL OF EDUCATION.

APRIL, 1910.

## OFFICIAL NOTICES.

The full number of legal teaching days in the half school year ended 4th February was 102; and in the half school year to the end of June next it is also 102 days. In this school year there are 204 days.

### *Summer Calendar, 1910.*

- |       |     |   |
|-------|-----|---|
| 1910. |     |   |
| April | 18. | Fourth Quarter of the School term begins.   |
| May   | 1.  | University Post-Graduate Examination Applications.  |
| May   | 6.  | Arbor Day.  |
| May   | 23. | Empire Day.   |
| May   | 24. | Victoria Day (Holiday), H. S. Exam. Applications.   |
| May   | 31. | School flags to be flown in honor of First Natal Day of the South African Confederation.  |
| June  | 4.  | Applications for admission Halifax Military School.   |
| June  | 25. | Applications for admission, Rural Science School, Truro.  |
| June  | 27. | Regular Annual meetings of School Sections.   |
| June  | 29. | County Academy Entrance Examination begins.   |
| June  | 29. | Provincial Normal College closes, Truro.  |
| July  | 30. | Last authorized teaching day of school year.  |
| July  | 1.  | Dominion Day.   |
| July  | 4.  | Provincial Examination week begins.   |
| July  | 7.  | Last day for Annual School Returns to be received.  |
| July  | 12. | Openings of Summer Schools at Halifax, Truro and Liverpool.<br>(Respectively, the Military, Rural Science, Bilingual and Summer Schools). |
| Aug.  | 1.  | Next School year begins.  |
| Aug.  | 29. | Regular opening of Public Schools, First Quarter.   |
| Aug.  | 31. | Provincial Educational Association meets, Truro.  |
| Sept. | 5.  | Labor Day (Holiday).  |
| Sept. | 15. | Normal College opens at Truro.  |
| Oct.  |     | Dominion Thanksgiving Day.  |
| Nov.  | 14. | Second Quarter of School Term begins.   |

DATES OF MEETINGS OF BOARDS OF DISTRICT SCHOOL  
COMMISSIONERS.

\*HALIFAX, RURAL—Thursday, May 26th.  
 †HALIFAX, EAST—Thursday, May 12th.  
 HALIFAX, WEST—Thursday, June 9th.  
 ‡LUNENBURG AND NEW DUBLIN—Friday, May 6th.  
 CHESTER—Wednesday, June 1st.  
 NORTH QUEENS—Wednesday, June 8th.  
 SOUTH QUEENS—Saturday, May 14th.  
 SHELBURNE—Friday, May 13th.  
 BARRINGTON—Wednesday, May 11th.  
 YARMOUTH—Thursday, June 16th.  
 ARGYLE—Friday, June 17th.  
 ANNAPOLIS WEST—Monday, June 13th.  
 ANNAPOLIS, EAST—Tuesday, June 14th.  
 DIGBY—Friday, May 20th.  
 CLARE—Monday, May, 16th.  
 KINGS—Tuesday, May 10th.

\*At Middle Musquodoboit. † Sheet Harbor. ‡ Bridgewater.

HANTS, WEST—Friday, May 13th.  
 †HANTS, EAST—Wednesday, June 15th.  
 ANTIGONISH—Wednesday, May 11th.  
 GUYSBORO—Tuesday, May 17th.  
 ST. MARY—Wednesday, June 1st.  
 CAPE BRETON—Tuesday, May 17th.  
 VICTORIA—Wednesday, June 8th.  
 \*\*INVERNESS, NORTH—Wednesday, June 1st.  
 INVERNESS, SOUTH—Tuesday, June 7th.  
 RICHMOND—Wednesday, July 13th.  
 PICTOU, SOUTH—Thursday, May 12th.  
 PICTOU, NORTH—Friday, May 13th.  
 PARRSBORO—Wednesday, May 18th.  
 CUMBERLAND—Wednesday, May 25th.  
 COLCHESTER, SOUTH—Tuesday, May 3rd.  
 \*\*\*COLCHESTER, WEST—Thursday, May 5th.  
 STIRLING—Friday, May 20th.

†At Elmsdale. \*\*Margaree Forks. \*\*\*Great Village.

DISTRICT SCHOOL COMMISSIONERS.

(Appointed September, 1st, 1909.)

- QUEENS, NORTH—Rev. T. O'Sullivan, W. Caledonia.  
 QUEENS, SOUTH—Rev. H. L. Haslam, Liverpool.  
 Frederick R. Freeman, Milton.  
 Leander Publicover, White Point.  
 Isaiah Huskins, Port Medway.  
 Rupert H. Gardner, Brooklyn.  
 L. J. Atkins, Port Medway.  
 Dr. F. P. Smith, Mill Village.

(Appointed February 23rd, 1910.)

- HALIFAX, RURAL—Rev. W. J. Fowler, Little River.  
 Rev. W. J. Wright, Middle Musquodoboit.  
 INVERNESS, SOUTH—Rev. Alex. Ferguson, West Bay.  
 INVERNESS, NORTH—Rev. Patrick LeBlanc, Eastern Harbor.

(Appointed March 29th, 1910.)

- ANTIGONISH—Rev. Ronald Beaton, Georgeville.  
 Rev. Alex. McLeod, Loch Katrine.  
 Duncan Grant Kirk, Antigonish.  
 CAPE BRETON—Rev. Angus R. McDonald, Christmas Island.  
 Rev. L. McMillan, Marion Bridge.  
 Rev. J. W. McIsaac, Little Bras D'Or.  
 Rev. M. Campbell, Gabarus.  
 CLARE—Simeon Comeau, Concessions.  
 Edward Dugas, Little Brook Station.  
 SHELburne—Rev. W. W. Conrad, Shelburne.  
 Rev. D. V. Warner, Shelburne.  
 H. H. West, Shelburne.

(Appointed April 23rd, 1910.)

- HALIFAX, WEST—Sidney Stephen, Windsor Junction.  
 Charles C. McLean, Hubbards.  
 W. Temple, Waverley.  
 W. J. Logan, Musquodoboit Harbor.  
 ANTIGONISH—Rev. M. H. McCormack, Lochaber.  
 VICTORIA—Angus McInnis, Baddeck.  
 GUYSBORO—Wm. Cunningham, Guysboro.  
 GEO. E. Jost, Guysboro.  
 Rev. Maurice M. Tompkins, Guysboro.  
 J. A. Fulton, Guysboro.  
 William Scott, Queensport.  
 Geo. Aikins, Boylston.

## SECTIONS TO BE PLACED IN SECOND SCHEDULE,

1ST AUGUST, 1910.

Inspectorial Division, No. 3,  
Yarmouth,  
No. 4. Central Chebogue.

Inspectorial Division, No. 6,  
Antigonish and Guysboro,  
No. 70. Auld's Cove.

Inspectorial Division, No. 7,  
Richmond,  
No. 20. Whiteside.

## SPECIAL STATISTICS FOR 1910.

The two questions of previous years are to be repeated in this year's Annual return. Teachers are requested to read the definitions of *defectives*, and *incorrigibles* as given in the next paragraph, with thoughtfulness. Inspectors are requested to specially report any case in which a teacher may have answered these or any other question without evidence of intelligent care.

The blank columns 148, 149 and 150 in the *Register* and *Annual Return* are to be filled in as follows:—

148.—No. of *Defectives* of school age in Section.

149.—No. of *Incorrigibles* of school age in Section.

150.—No. of pupils who *have* been vaccinated.

"*Defectives*" are not meant to include the *blind and deaf*, which should be reported in the columns respectively provided for them. *Defectives* are feeble minded pupils, who have not wit enough to profit by ordinary school instruction; but who if educated might be able to earn a living in some capacity, and be saved from the helpless, if not vicious, condition which is likely to render them an expense to the public and a menace to the morals of the community. Some of this class may also be more or less defective in sight or hearing. But neither the School for the Blind nor the School for the Deaf have facilities for the education of any who are not of normal strength of intellect. In many countries a large proportion of such pupils are trained to considerable intelligence and self-control, and are able to fill useful positions and support themselves.

"*Incorrigibles*" mean persons of school age who cannot be effectively controlled by their parents or guardians, or the school authorities; but who have not yet become criminals. They are

habitual truants as a rule, but presumably capable of being trained by a firm, kind and intelligent hand into self-respecting, self-controlled and moral citizens. It is hoped that both teachers and trustees will be able to furnish an accurate estimate of the number of such pupils in their school section.

SUPPLEMENTARY ANNUAL RETURN, 1910.

The following additional information is requested to be sent in with the Annual returns on a page of letter or foolscap paper, to the Inspector, who after initialling the paper and taking note of any information he may desire, will send it in a special parcel to the Superintendent of Education.

The name, parent or guardian's name, and address of each individual counted in the following columns of the Register (and Return).

129 (a) Not in attendance at Institution for Deaf and Dumb.

129 (b) Not in attendance at School for Blind.

148. Defectives.

149. Incurribles.

And

A. Has there been any regular medical or dental inspection of the pupils in your school?

B. If so, estimate the number of pupils inspected.

C. How many times in the year are pupils inspected? Once or twice?

D. How many teachers have taken the physical training course up to date?

The names asked for above will not be published. They will simply be given to the heads of the institutions provided for them, or those in authority interested in them, for the purpose of communicating with the parents; in other respects the names and addresses shall be deemed to be confidential. This return should be signed by the Secretary and the principal teacher of the section.

Inspectors will please critically examine, correct, classify and sum this information for each subdivision of their respective inspectorates.

## AN ACT TO PROVIDE ANNUITIES FOR INSPECTORS OF SCHOOLS.

Be it enacted by the Governor, Council and Assembly, as follows:—

1. Every School Inspector shall pay annually into the Provincial Treasury the sum of fifty dollars to be applied to the formation of a fund to be known as the "School Inspectors' Annuity Fund."

2. Every School Inspector who has completed thirty years of inspectorial service shall be entitled on retiring at sixty-five years of age or upwards, to an annuity equal to one seventy-fifth of the annual salary of such School Inspector at retirement for each year of inspectorial service, and in addition the sum of five dollars for each year of service as a teacher in the public schools before appointment as Inspector.

Such annuities shall be paid in semi-annual instalments.

3. Every School Inspector who has not reached the age of sixty-five years, and who, in the opinion of the Council of Public Instruction, is by reason of sickness or other permanent disability incapable of efficiently performing his duties and of otherwise earning a livelihood, shall, on recommendation of the Council of Public Instruction, be entitled on retirement to a like annuity to that provided in the preceding section.

4. No annuity payable under the preceding sections of this Act shall in any case exceed \$600.00.

5. Notwithstanding anything contained in the provisions of this Act, James H. Munro of Yarmouth, late inspector of schools for the Districts of Yarmouth and Shelburne, upon his retirement from said office after twenty years of Inspectorial service and thirty-five years as teacher in the public schools, shall be entitled to the annuity provided in section 2 hereof, to the same extent as though his retirement had taken place immediately after the passing of this Act.

### THE NEW COMMON SCHOOL COURSE OF STUDY.

Beginning on page 78 will be found the report of the Committee of Sixteen in revision of the course of study for the common school grades. It is published here so that every one may be able to have it studied before the Educational Convention at Truro, where it is to be discussed and amended.

In its present form it is not suitable as a handbook for untrained teachers, even in graded schools. In some parts it should be condensed, and in other parts extended, and the whole edited on a uniform plan, to be useful even in graded schools.



For ungraded schools and partially graded schools, it will have to be still further adapted to the different types.

Every one interested in public education, should therefore commence to study this report at once, so that it may be dealt with intelligently and effectively at the Convention. The idea of some people is, that the course of study with full directions for the teacher, should be published in the form of a hand book. It is extremely important in such event, that such a guide to the teacher should be prepared with much consideration and great care.

#### EMPIRE DAY.

The proper flag for Empire Day is not the Nova Scotian flag, or even the Canadian flag (so-called). The former is in place on the old style 21st of June, the latter on Dominion Day, if the flags are at hand. At some celebrations of Empire Day the orators talked as if it were a Dominion Day occasion.

Within the last year no less than two little books have been published giving the date of the first Empire Day celebration a year earlier than the true date, 23rd May, 1899. Nova Scotia was the first country to make Empire Day a public school institution, (18th August, 1898), although Mrs. Fessenden of Ontario advocated previously a "patriotic day" which was the origin of the movement in Ontario.

Lord Meath has carried the movement into every part of the British empire; but it is the 24th of May, our Victoria day, which he has been exploiting. Empire Day is a school day in Canada—a very important school day. Victoria Day is the holiday.

Lord Meath and the authorities in Ontario and New Brunswick recommend the "Union Jack" as the school flag. In Nova Scotia, we found that the "Union Jack" had a special meaning not only as used in the Navy, but as used in the Army. The Red ensign which has the "Union Jack" in its upper quarter has always been the democratic Empire flag without any special significance except the great significance of British citizenship. It was therefore recommended as the original Empire Day flag in Nova Scotia. While we are glad to see the "union" flown anywhere by itself, we need not give up the use of the flag we started out with. The red ensign over a school house will not bring up an officer from the Army or the Navy, under the impression that the head quarters officer commanding is located there. And

the red fly of the flag makes even the "Union" more conspicuous, against the green foliage in the landscape of every rural school.

Every school should have its flag, to be flown on special occasions which for the present are left to the judgment of the teacher and school board. In New Brunswick, certain days are specified; and a ritual for saluting the flag is prescribed. We are leaving these features to be developed spontaneously, in order to have an opportunity of discovering by the evolutionary method the most effective form for future general recommendation.

#### FIRST NATAL DAY OF UNITED SOUTH AFRICA.

On the 31st of May, Cape Colony, The Transvaal, Natal and the old Orange River Republic will become one British Confederation under the name of United South Africa, with Pretoria the capital and Cape town the seat of the Legislature. This is one of the days on which the Empire flag should be flown over every school.

#### THE NOVA SCOTIA PHYSICAL TRAINING SYSTEM.

The Provinces of Ontario and New Brunswick have adopted our system of Physical and Military training in the Public schools—the system also being adopted in the schools of Great Britain. Several other provinces of Canada are likely to adopt it within the present year. The system is likely to become universal throughout the empire; so that there shall be one language of movement, not only in our schools, but in all the schools of Canada, and probably also throughout the empire. We add the *army* with its uniform drill to the Tennysonian trilogy of empire;

One flag, one fleet,  
One army, one throne,  
For the peace of the people,  
And the hopes of the home.

#### SCHOOL READERS.

As so many questions have been lately asked with reference to the history and policy of the supply of school readers in Nova Scotia and Canada, the following notes may be of interest to the public:

### I. Nova Scotian System for Cheap Reading Books.

Since 1867 School Sections have had the power to supply pupils with school books *free*, or at *half price*, or at *wholesale rates*, or in any other manner deemed best for all the parties concerned.

For a few years the Provincial Government aided sections by paying *one half*, and then *one third* of the cost of books required.

But even with this inducement all but a very few school sections practically decided, that the advantages gained did not compensate for the trouble of the interference by temporary school officials with the regular distribution of the books through the usual business channels. The government thereupon withdrew this aid without any public objections, and granted increased aid to poor sections in pioneer settlements.

The reasons why so few of the town and rural school sections would even venture to try the *free* supply of books have been stated as follows:

(a) There is a feeling that to make books free in the common school grades alone would be so trifling an easement to even the poor, that it would be no compensation for the trouble of management and the petty annoyances arising from their distribution and care; while to make them free in the high schools as well would be to make the masses pay for the more expensive texts needed by the few. The Readers for a pupil for the whole eight years of his common school course will cost on the average only about 30 cents per year, and the same books when cared for as pupils should be taught to care for them, may do for several members of the family—there being no plausible objection to the use of the same books by members of the same family. The average cost per year of all the books, copy and even drawing books included, in the common school course need not amount to seventy-five cents a year on the average.

(b) There are very strong objections to the use of text books which have been for some time in the hands of other and unknown pupils; therefore, every pupil backed by his parents would demand a new book whenever he needed one. This would probably double the number of books used, a reason why publishers are incessant in moving individuals to keep the question before the unthinking public.

(c) The personal ownership and care of books is one of the most important things in which the pupil should be trained so as to become a habit, in order to prepare him for frugal living and the conservation of what he may acquire,—to save him from the vice of thriftlessness, and the thoughtless loss of valuable property.

As in British Columbia and Alberta, school sections can buy their books at wholesale rates and supply them *free* to their pupils.

As in Ontario they can supply them at less than cost but charging the difference to the public funds.

As in New Brunswick, they can take the business out of the hands of their people in the regular trade, and give the distribu-

tion of the books to vendors appointed by themselves who will be paid a percentage out of the public funds.

## 2. ADVANTAGES AND DISADVANTAGES.

Each of these methods has the advantage of supplying the books ostensibly at less than its regular natural cost to the pupil. But each has the disadvantages (1) of misleading the public as to the regular natural price or cost of the book; (2) of hiding the actual cost of school book supply by merging the expense with sectional or provincial expenditure; (3) of taking the regular business of bookselling from those trained to conduct it and depending on it for a living, to a government which can thus increase its patronage and run the risk of making the books cost actually a great deal more to the country; and (4) of interfering with local matters which can be most economically and correctly managed by those responsible for the general management of the school.

## 3. *Our Present Readers.*

After holding on to the old Royal Readers for nearly thirty years and being for years nagged at in the press for so doing, the Council brought out the present series.

The new Nova Scotian Readers have been edited by one of the ablest and most experienced educationists in Canada, Mr. Saul, and another of the ablest and most experienced in Great Britain, Mr. Gunn. The former is the editor of the Morang publishing company in Toronto, and the latter of the great Nelson house, Edinburgh. These firms were approved after a searching investigation by a committee of nine, which examined the Readers and proposals of publishers in Canada, Great Britain and the United States. And finally the editorial selections and arrangements were subjected by the committee to at least a threefold revision by this committee, which contained the ablest representative Educational authorities in Nova Scotia, one of them later becoming the Archbishop of the Province, and another the President of the University of Saskatchewan. There are no cheaper Readers of equal merit published in Great Britain, Canada, or the United States, it is believed on good authority. And they are sold at this cheap natural price covering the cost of royalty, editorial work, typesetting, stereotype plate-making, printing, binding and distribution through the regular trade, without making a charge of one dollar on the revenue of the country; and, also, it should be said, without interfering with the legitimate business of any class of citizens, and without creating a new class of government patronage with all its dangers.

The only complaint persistently coming to the notice of the Education Department is, that the price of Readers I, II and III, is so low that sufficient discount cannot be given to the retail book trade to cover the cost of freight, handling and unavoidable accidents of bad debts. They handle the books practically without profit, and for the public convenience. The publishers maintain and show evidence for it, that they cannot give larger discounts and continue publishing at the prices. The discounts to the trade by the Nelsons, is understood to be satisfactory; for they appear to be able to publish more economically than the Toronto firm.

Were any of the other methods adopted by the provincial Government, the cost of the books to the province would possibly be greater, legitimate business would be arbitrarily interfered with, but the government would secure more patronage at the expense of the province and displaced trade business, and individuals would get some books at less than actual cost.

#### 4. *Conclusions.*

About forty years ago we tried the plan of cheapening school books by provincial subsidy. It was given up without any regret, apparently. The money was applied where it was evidently more needed.

Our law at present gives full power to school sections to provide school books *free* or at any degree of reduced cost, under local supervision where no irregularities can easily be covered up.

To artificially cheapen by subsidy etc., a few books by a few cents, and leave many others to be procured at their natural cost, demoralises the public judgment as to the true cost of books. This is very marked in our province. It has also deceived people in this province.

Books at the regular natural prices are the easiest of the various school needs to be obtained by all. The Provincial subsidies should be applied for the important needs not so readily supplyable by parents or school boards.

Our present plan is the simplest, the fairest to all, and practically the cheapest method of book supply; while allowing the liberty under local supervision, the only safe way of doing it, to supply any or all books, partially or entirely free.

## ENGLISH SPELLING.

When the French take "roast beef" into their own language they simplify the spelling into "rosbif". That is neatly done. Some people under the impression that it is English, use invariably the French "programme," although many English writers, including the great "*Journal of Education*" published in London and Edinburgh, uniformly use the English word "program." The newspaper so English as to use "programme" always uses the United States "enrollment" instead of the English "enrolment," evidently thinking that the one with the extra letter must be English. But this longer spelling never appears in an English Education report.

The fact of the matter is, that most of our busy writers, including university graduates, have never thought of the problem of spelling, have little knowledge of its history, and have no idea of what it costs.

In Nova Scotia we have just had to give to our schools in French settlements the privilege of teaching their children in French for the first four years, mainly on account of the difficulty of teaching English to those who cannot speak the language, on account of its spelling,

The same difficulty prevents the French in Quebec and foreigners in the other provinces from acquiring English so rapidly as they otherwise would. It is perfectly impossible for the numerous foreign settlers in our Northwest to learn English at all where they are segregated so as not to hear it commonly spoken.

It takes two years out of the total teaching and studying of English pupils in the common school grades, beyond what an Italian or even a Welsh child needs, to master accurate reading and spelling, as was conclusively shown by Dr. J. H. Gladstone of the London School Board over thirty years ago.

It has been calculated by one of our ablest modern publishers, that the irregularities of English spelling cost the British Empire and the United States \$100,000,000 per annum without any compensation, whatever. In the first place, every book, every newspaper published has one seventh more letters than necessary, takes up one seventh more space than it should, costs the public one seventh more than it should—just for the useless letters which the ignorant think look so well.

They think the excrescent letters constitute a beauty of the language; when they are not a part of the language at all, but are really diseases of its written form. They are all, too, diseases of ignorance. And as they handicap the spread of English, retard its eventual universality, and tax it more extensively than the most villanous trust in existence, the perpetuation of these blunders is a serious reflection on the knowledge, taste and economics of one persisting consciously in their use.

It is therefore with great satisfaction that we find the intelligent Nova Scotian press sympathetic to the movement of reform. Naturally any change will be somewhat of a nuisance to printers. Yet while not enjoying the prospect of an immediate change, they have the disposition not to be hostile to reform, and many of them are rapidly adopting more or less of the improvements recommended by the highest scholarly authorities on the language.

We are just in receipt of communications signed by the leading newspaper publishers, University professors and Educational authorities of Chicago, approving of the direction of the reform of English spelling by the simplified spelling Board of the English speaking peoples. The managers of all the daily papers of Chicago, except two which are not hostile, have expressed approval of the movement. Both in London and New York, the authorities are preparing a definite list of simplifications—a fourth list to be added to those already published, before opening the new campaign.

On every side, the first objection to be heard, is that spelling cannot be changed artificially. Nothing less true could be stated. Not only has nearly every change been made artificially but consciously. And spelling is at the present time prevented from improving by the most extensive artificial tyranny that ever existed—the tyranny of education laws and examination decrees. In Nova Scotia, we have been the first to win our academic freedom to improve, from both the provincial education system and the Dominion civil service. But here we must rest until the other provinces of Canada, and the rest of the Empire come up to us. We can then take a common step in advance.

In the meantime, we shall find it most convenient in our schools to follow as usual the orthography of our text-books. But our people will be prepared to move in the first rank with the rest of the Empire when the time comes. For a very interesting sketch of the history of English spelling, and an illuminating glimpse of its excessive perversions and its profound defects,

Professor Lounsbury's bright volume entitled "English spelling and spelling Reform" should be read. The greatest language authorities of Great Britain, Australia and New Zealand and the United States, are leading the movement, and guiding it in a definite purposeful direction.

Spanish, Italian, German, Welsh and even South African Dutch have already been simplified. French had its syntax and some spelling reformed in 1900 after a generation of struggle between the Ministry of Education and the Academy. But now a large instalment of spelling reform has been agreed to be made permissive in France. English is the last and worst subject for simplification.

In the meantime it is a good rule to use the simplest forms of spelling having good authority, especially as soon as they become passably familiar. But a spelling reformer who finds fault with the blunders of old English spelling, must be even more severe on the introduction of new bad spelling. There is no comfort in the future for the bad speller. The simpler form must have high authority, or else it is making what is bad, still worse. The JOURNAL will join the press of Nova Scotia in cautiously carrying out this policy.

### CONCLUSIONS CONCERNING VACCINATION.

The outbreak of what might be termed an epidemic of smallpox in various towns of the province naturally again calls to mind the subject of vaccination. We realize that the successful enforcement of laws for compulsory vaccination is not an easy thing in a democratic community like this. The individual who resents being forced to submit to this alleged indignity is apt to work himself into that frame of mind where his objection to compulsion makes him willing to believe that vaccination is useless and dangerous and objectionable from every standpoint. When he has reached this stage he is capable of believing the tracts put forth by the anti-vaccination societies and the "Peculiar People." As a matter of fact, despite the advances in hygiene of recent years, if an unvaccinated population were allowed to grow up, the scourge of smallpox would again be almost constantly in our midst with its awful mortality, as it was in the centuries gone by. Just let the fuel once accumulate and the catastrophe will follow with a terrible certainty. A great German scientist, Dr. J. F. Schamburg, has recently published an exhaustive and convincing work on the subject of Vaccination. His conclusions are thus summed up:



1.—Vaccination, when properly and adequately employed, protects one against smallpox. Even those intimately exposed to the disease, as physicians and nurses in smallpox hospitals, may be rendered completely immune against smallpox by vaccination and revaccination. 2—Vaccination protects against smallpox in the same manner that one attack of the smallpox protects against a second attack. Vaccination has the special advantage in that the immunity which it confers against smallpox may be renewed when it becomes impaired or exhausted. 3—Vaccination, in order to confer protection, must be genuine; the mere production of a "sore arm" is of itself no proof that the subject has been successfully vaccinated. The vaccination must run a definite course before a protective substance is left in the body. 4—Smallpox may develop in vaccinated persons if they have permitted years to elapse without being revaccinated. 5—Vaccination and revaccination universally applied are capable of exterminating smallpox as an epidemic disease. The experience of Germany during the past thirty-five years proves this. 6—In isolated instances, individuals in a generally well-vaccinated community may develop smallpox because their protection is imperfect as a result of the use of an inert virus or because of some other fault of technic. These cases, however, will never appreciably influence the prevalence of the disease in such a community. 7—Smallpox was an ever present and terrible pestilence in the days before vaccination. In most civilized centers it is to-day a relatively rare disease. This change has been effected almost exclusively by vaccination. Epidemics of smallpox prevail from time to time when the spark of infection is introduced into the community and a sufficient amount of unvaccinated combustible material exists to lead to a general conflagration. In countries where vaccination is neglected, as in Persia, Asiatic Russia, etc., etc., smallpox is still a death-dealing scourge. 8—The foes of vaccination commonly refer to the infrequency of smallpox at the present day and to the remote liability of contracting the disease. They forget that the relative security which we now enjoy is caused by vaccination. This security can be made absolute or it can be largely destroyed, according as vaccination and revaccination are generally employed or generally neglected. 9—The dangers connected with vaccination have been greatly exaggerated by the opponents of this measure. Vaccination causes an abrasion of the skin, and, in rare instances, this wound, like other wounds, may become infected, especially when neglected or maltreated. With the selection of a proper virus and care of the vaccination site during and after vaccination, the risk in any individual instance is an entirely negligible quantity.

Editorial in ACADIAN RECORDER, 26 April, 1910. Editor.  
Dr. E. Blackadder.

## NOVA SCOTIA LEADS IN TAKING STOCK OF NATURAL RESOURCES.

"Gone are the forests primeval", not merely in the storied Grand Pre valley, but throughout the rest of the province of Nova Scotia as well; but that province has still valuable forests left and has determined to take measures for their proper use and conservation. With this end in view, the provincial authorities during the past summer (1909) began to "take stock" of their remaining forests and inaugurated a survey of their forest and other crown lands. Nova Scotia is thus the leader among the provinces of the Dominion in making inventory of its forest wealth.

Dr. B. E. Fernow, dean of the Faculty of Forestry of the University of Toronto, was given charge of the survey. Dr. Fernow is one of the pioneers of forestry in America, having been prominently connected with the forestry movement since forestry began to be thought of on this continent. Associated with him were the Chief Fire Warden of the province and several trained foresters. Only a rough survey, or "reconnaissance", was attempted.

So far the southwestern part of the province, from Hants county westward, has been surveyed. The total area covered is about 8500 square miles. The cost of the survey has been surprisingly low, averaging less than twenty cents per square mile.

In the survey each member of the party was given a certain district and was left to his own discretion as to his method of accomplishing the work in hand. Where practical and advisable, records already in existence were utilized, with a view of saving time and expense, as was also information secured from reliable and well-informed persons having knowledge of certain districts. The fieldwork consisted largely in checking this information, the study of forest types, etc. This information was plotted in the field directly on maps (on the scale of two inches to the mile.) On these were noted such points as the extent of the burned areas, the degree of cutting on cut-over areas, the composition of the forest, the condition of the young growth or "reproduction", and the character of the farming lands, meadows etc., within the farming country.

Dr. Fernow is hopeful as to the future of the forest. He writes: "Although the data on reproduction and rate of growth are not yet collected, it is safe to say that, if the fires are kept out (and apparently with the present organization still further perfected this can be done reasonably well) there is no difficulty in restocking by natural means most of the cut-over areas, if not

too severely culled. . . . In the pure hemlock-spruce stands all that is necessary is to remove the old hemlock thoroughly and cleanly to have the young growth of spruce, already on the ground, take its place."

Very often, however, in his opinion, the rate of growth of spruce is exaggerated. The white spruce, growing in comparatively open situations, may, he thinks, make a sawlog in sixty years. The forest spruce, which is largely red spruce, grows more slowly, and will probably not average a sawlog in less than a hundred years.

To a large extent different species of trees are confined to, or are most numerous in, certain definite areas. The white pine is found most abundantly in Shelburne and parts of Queen's counties the hemlock most prominently in Annapolis and the spruce in Digby county.

Up to the present, knowledge of Canada's forested areas, the stands of timber thereon and many other questions relating to our timber wealth has been almost entirely guesswork. The significance of Nova Scotia's action is that she has been the first among the provinces of the Dominion to substitute certain (even though only approximate knowledge for guesses. The province is to be congratulated on the enterprise she has displayed, and it is to be hoped that the authorities of the Dominion and of the other provinces may soon see their way clear to follow the example thus set.

1-10-18 C.

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