

SUPPLEMENT TO THE Ontario Normal College Monthly.

MAY EXAMINATIONS, 1899.

SCHOOL MANAGEMENT.

Examiners: { C. L. Crassweller B. A.
 { T. A. Kirkconnell, B. A.

1. To what extent should the school board and the staff be held responsible for the physical comfort and physical training of the students?

2. (a) What should be the objects sought in the punishments employed in the school-room?

(b) Outline the characteristics of proper punishments.

3. "Ability to conduct recitations is the best test of a teacher's professional skill."

(a) Discuss this statement.

(b) What conditions on the part of teacher and of pupil are essential to a good recitation?

4. What are the characteristics of a good question? Under what circumstances is it wise to vary both the method of questioning and the form of question?

5. "Honesty is a cardinal virtue of a well-governed school"

What opportunities are likely to occur in an ordinary school for training in this virtue? How may this training be best accomplished?

METHODS IN SCIENCE.

(For Pass Candidates.)

Examiners: { J. A. Fife, B.A.
 { G. A. Smith, B.A.

Note.—In all work indicate clearly the parts taken by the teacher and scholar respectively.

1. Outline a lesson on the atmosphere under the following heads:—

(a) Lead your class to find out by experiment its chief constituents.

(b) Select apparatus and describe experiments you would use in order that the class may, by making their own observations and inferences, arrive at the volumetric composition of the atmosphere.

(c) A pupil infers from results of experiments in (b) that air is a chemical compound. How would you direct him to correct his error?

2. Your class has performed the following experiments:—

(a) Free hydrogen is passed through

ferric chloride solution for some time and the resulting substance tested for a ferric salt.

(b) Strips of zinc and dilute sulphuric acid are placed in a small quantity of a solution of ferric chloride and the action allowed to go on for some time. The resulting substance is then tested for a ferric salt.

(c) A pure solution of potassic chlorate is treated in the same way as the ferric chloride in (a) and (b), and the resulting substances are tested for chlorides.

(d) Caustic potash and fine iron filings are heated in a test-tube and the escaping gas is collected and identified.

(e) Potassium nitrate and fine iron filings are heated together in a test-tube and the escaping gas is collected and identified.

(f) Caustic potash, potassium nitrate, and fine iron filings are intimately mixed and heated in a test-tube, and the escaping gas is tested with red litmus paper.

(g) Free nitrogen and hydrogen are mixed in a jar and the mixture is tested with red litmus paper.

By a series of questions on the observations and inferences which the class has recorded on the above experiments, lead your pupils to discover an important chemical principle.

3. "It requires about 30 calories of heat to melt one gramme of ice."

Select your apparatus and state in detail your plan of leading your class to discover this fact.

4. (a) Give reasons why Botany should be taught in the junior forms in our secondary schools.

(b) Select some typical plant and by using it teach a lesson on elementary Botany, illustrating particularly your plan of introducing technical terms.

(c) Outline your work in Botany for a class of beginners for the latter part of the month of October and for November.

(d) Your class has studied the Mustard, Shepherd's Purse, Red Clover, Sweet Clover, Dandelion, Burdock, Evening Primrose and Great Willow Herb. Using these plants teach a short lesson on botanical classification.

5 The Earth Worm, Fresh Water Mussel and Crayfish have been studied. teach an introductory lesson on the Grasshopper.