

NATURAL PHILOSOPHY.

1. Define Statics, Dynamics, Resultant, Velocity, Acceleration, Momentum.
2. Describe the parallelogram of Forces. At what angle must two equal forces act to produce the same effect as one of them?
3. Show that if a body be in equilibrium under the action of three forces, they all meet in a point, or are all parallel.
4. A uniform beam, 20 feet long, whose mass is 20 lbs., is supported at a point 8 feet from one end; at this end a mass of 12 lbs. is placed; find the mass required at the other end to balance the beam.
5. Two weights of 14 and 18 oz. are suspended by a fine thread, which passes over a smooth pulley at a height of 30 feet above the weights, the system being left free to move, how far will the heavier weight descend in the first three seconds of its motion?
6. If a screw be formed upon a cylinder whose length is 10 in. and circumference 4 in., how many turns must be given to the thread, in order that the power may be one-eighth of the weight?

FRENCH.

Qu'un prince entreprenne une guerre; que sa cour soit trouble d'intrigues; qu'il achète l'amitié d'un de ses voisins, et qu'il vende la sienne à un autre; qu'il fasse enfin la paix avec ses ennemis, après quelques victoires et quelques défaites, ses sujets, échauffés par la vivacité de ces événements présents, pensent être dans l'époque la plus singulière depuis la création. Qu'arrive-t-il? ce prince meurt: on prend après lui des mesures toutes différentes; on oublie, et les intrigues de sa cour et ses ministres, et ses généraux, et ses guerres, et lui-même.

Si quelque prince et quelque ministre trouvaient dans cet ouvrage des vérités désagréables, qu'ils se souviennent qu'étant hommes publics, ils doivent compte au public de leurs actions; que c'est à ce prix qu'ils achètent leur grandeur; que l'histoire est un témoin et non un flatteur; et que le seul moyen d'obliger les hommes à dire du bien de nous, c'est d'en faire.

1. Parse and give primitive tenses of *entreprendre, acheter, vendre*.
2. Explain the constructions, *toutes différentes, c'est d'en faire*.
3. Write feminine of *seul, présent, public, prince, flatteur voisin*.
4. Write in full in the negative-interrogative form the future indicative of *se souvenir*.
5. Explain the use of the letter *h* in French, taking the words *le héros* and *l'homme* as instances.
6. Give in tabular form:
  - (a) the present participle;
  - (b) the past participle;
  - (c) the first person singular and plural of the present indicative.
  - (d) the second person singular and plural of the preterite definite of the following verbs: *soit, fasse, meurt, doivent, dire, prend*.

Translate into French:

All these people have been very kind to me. Has the servant broken the bottle? When you go out, buy me some pens and pencils. I do not like people who are cruel to animals. Give him ten francs more. How is your sister to-day? Which of these books do you like best? They say that the king is dead. You will write to your uncle, will you?

SCHOOL SYSTEM AND SCHOOL MANAGEMENT.

1. Explain the propriety of the Regulation which provides that Teachers must engage with Trustees for a definite sum as salary, and forbids their agreeing to accept as remuneration from the section the contingent amount to be received from the County Fund.
2. "A school having been established in a given locality, the law provides for it a threefold means of support." Explain this statement in detail.
3. State the chief points to be considered in the construction of a Time Table.
4. Describe the method by which you would endeavour to utilize the proverbial activity of children so as to promote both order and progress on the part of your pupils.
5. State at least four important rules by which you would be guided in the management of a school.

6. From the subjoined specimen Register determine:
  - (a) The grand total days' attendance made,
  - (b) The average number of pupils daily present.

Pupils Number.	NAME.	Monday.	Tuesday.	Wednesday.	Thursday.	Friday.	Monday.	Tuesday.	Wednesday.	Thursday.	Friday.	Monday.	Tuesday.	Wednesday.	Thursday.	Friday.
		1	James Brown.....	/	/	t	/	a	/	a	/	/	/	/	s	/
2	Charles Little.....	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
3	Jane Smith.....	/	/	s	t	/	/	/	/	/	/	/	/	t	s	/
4	Job Somers.....	w	/	/	/	/	s	/	s	/	/	/	/	/	/	/
5	Lulu Black.....	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
6	Wm. Johns.....	/	/	/	t	/	a	/	/	/	/	/	/	/	/	/
7	Sarah Jones.....	/	/	/	/	/	/	/	t	/	/	/	/	t	/	/
8	Ella Thomas.....	/	/	t	/	/	/	/	/	/	/	/	/	/	/	/
9	Flora McDonald..	/	/	/	/	t	/	s	/	/	/	/	/	/	/	/
10	Fannie Silver..	w	/	/	/	/	/	/	/	/	/	/	/	/	/	/

TEACHING.

1. Show that in the case of successful teaching the relation of instructor and pupil is not merely that of *giver* and *receiver*.
2. Justify the introduction of Industrial Drawing as a branch of instruction in the Public Schools.
3. Give the heads under which you would arrange Notes of Lessons, (a) on an animal, (b) on a plant, (c) on a mineral.
4. "Certain subjects of study seem specially fitted to cultivate certain faculties." Explain and illustrate this statement.
5. Give in accordance with annexed outline, notes of an oral lesson on COAL, adapted to pupils about 12 years of age.

Introduction:—

HEADS.	MATTER.	METHOD.

BOOK-KEEPING.

1. Write a specimen "Letter of Credit" and a "Receipt for an Endorsement upon a Note."
2. If you buy \$100 worth of goods for cash, state with reasons the Dr. and Cr. resulting in keeping your books by Double Entry, and show clearly the difference between Single and Double Entry.
3. Write out Account Sales of 50 Boxes Tobacco, 100 Chests Tea, 75 Hhds. Sugar, 500 Bbls. Flour for account of A. & W. Smith, Halifax.
5. Give an example of an Account Current.
5. Journalize the following transactions: Bought from Burns & Murray 75 pieces of bleached cotton, containing 30 yds. each at 12c. per yd., paid cash \$100 and gave my note at 3 mos. for remainder. Sold to Brown & Webb goods \$500, received in cash