

SUPPLEMENT.

TEACHER'S COLUMN.

Devoted to The Interest of The Provincial Teachers.

In Which We Publish the Entrance, Monthly and Final Examination Papers Used in the Normal School

This Column is Open For Communications, and Will Contain Articles of Special Interest to Every Teacher.—Teachers wishing for information on Any School Question Can Obtain the Same by Enquiring Through This Column.

Owing to the demand for last week's issue containing the examination papers given in the Normal School we republish them again this week by request. The teachers will please remember that this column is open for all communications from them concerning school matters and its success will depend largely upon the teachers: Address all communications to P. O. Box 315.

Professional Knowledge.

SENIORS. Time 2 hrs

1. What are the sources from which a teacher's knowledge of his profession is to be obtained? Estimate the value of each and show their relation to each other.

2. Why is a knowledge of Psychology a necessary part of a teacher's preparation?

3. Trace, in a general way, the development of mind from infancy to (say) the age of fifteen years.

4. Attention.—What is it? Its conditions? Its value in education?

5. What part is played by the senses in (a) The development of mind, and (b) the acquisition of knowledge? Which are the most valuable senses from the point of view of education and why?

6. The Memory—its functions—its educational value—kinds of—conditions of its proper development.

7. What is the essential process in Reasoning? At what age does a child begin to reason? Trace the unfolding of this faculty as far as you have studied it

8. Distinguish between Inductive and Deductive Reasoning.

9. Explain the scientific basis of the following maxims of method viz—"We learn to do by doing" "Teach the abstract through the concrete" "Step by step—step after step" "The normal order in teaching is See, Know and Do."

Physics and Chemistry.

SENIOR. Time 2 hrs.

Any four of the first six and the last two questions make a full paper.

1.—(a) Account for the attraction of pieces of paper and metallic foil by an electrified glass rod. (b) Account for the formation of icicles and for their obconical form.

2.—(a) Explain the action of the instrument—a bottle half full of water with a tube running in through the cork, force air in and water will come out in jets. The cause? (b) Calculate the specific gravity of mercury from data obtained in your Physic lessons and explain the operation.

3.—(a) Account for the rise and fall of the mercury in the thermometer and barometer respectively, and show what the rise and fall indicates in each case. (b) Why is a vacuum in each of the aforementioned instruments necessary? How would the action be affected if an opening were made in the vacuum so as to establish communication with the atmosphere.

4.—(a) Why does heating the lower portion of a body of still water destroy its equilibrium? Why does cooling the water at the upper surface destroy its equilibrium also? Explain fully and mention a natural phenomena (of frequent occurrence in many parts of the earth) dependent upon each of the facts explained. (b) Why is it possible for some insects to walk upon the surface of brooks and ponds.

5.—(a) A body floats on water with two thirds of its volume below the level of the waters surface. Determine the specific gravity of the body. Exhibit

the course of reasoning by which you reached the determination. (b) What kind of thermometers hang on the walls of the class rooms in this building? How can you tell by the instruments themselves?

6.—(a) Make a drawing of a force pump and fully explain its action. (b) Explain the fact that a hot lamp chimney cracks when a drop of cold water falls on it.

Chemistry.

7.—(a) Write the reactions that occur when aqua ammoniac and nitric acid are mixed and when caustic potash and hydrochloric acid are mixed (giving both names and formulas.) (b) Write the

of the following persons, Cyrus the great Solon, Nebuchadnezzar, Solomon, Darius I, Lycurgus.

2. Give a brief outline of the principle changes or turning points and most important events in the history of Egypt and Palestine, or Assyria or Babylonia.

3. Book 2.—Enunciate three of the six propositions giving the relations of the two segments of the line in terms of rectangle and square.

4. Book 2.—Enunciate and prove one of the four propositions relating to a straight line divided into two equal and unequal segments external or internal.

5. Book 2. Enunciate and prove one of the two propositions which are naturally

sides proportionally.

Physiology and Hygiene.

SENIOR Time 1 hr. 30 min

1. State what you know of the composition of bone, how many bones are there in the human structure? Name the bones in the second, third or fourth sections. Give their relative position and state what kind of articulation that unites them.

2. What is a muscle? how does a muscle cause one part of the body to move upon another?

3. Name in order the cartilages of the larynx. What is the use of the vocal chords?

4. Name in order the parts of the brain. What is the function of the brain?

5. What is the difference between cranial and spinal nerves, between motor and sentient nerves?

6. How may spinal curvature and deformity of the ribs be induced. What evil results arise from such deformities? What do you consider a deformity of the ribs?

7. Name seven rules of exercises as given in your text book.

Physics and Chemistry.

JUNIORS. Time 2 hrs.

The paper given the junior classes in physics was the same as the seniors.

Chemistry.

I. (a) Tell what you know about an atom of Hydrogen—an atom of Sodium—an atom of water.

(b) Write the graphic formula for water—Muriatic acid and Caustic potash.

2. Give the Chemical and Physical properties known to you of Muriatic acid, Sulphuric acid, Caustic Soda and Hydric oxide and write their formulas.

Professional Knowledge.

(METHOD Part 1.)

1. (a) What is the educational and what the practical value of the subject of form?

(b) How should it be taught, outline an illustration, a lesson of the sphere.

READING.

2. (a) Describe generally the various methods adopted to teach the first steps in reading.

(b) Which of them do you prefer, why and (c) in which order would you introduce the difficulties in teaching the first steps of reading? Give reason therefore.

(d) Show how you would teach a class of children to read a new sentence.

(SCHOOL DISCIPLINE, Part 2.)

1. The kind of school discipline which you will be able to secure will depend on certain conditions. What are they?

2. What is the relation, motives and conduct?

3. What is the use of rewards and punishments in schools. What kinds are best?

4. Discuss briefly the following rewards and punishments giving your opinion of the use or uselessness of each as the case may be.

FAMILY.

Detention after school, Prizes, Certificates, Corporal Punishment, Home Lessons as Punishments, Suspensions.

5th.—On what general principles would you deal with offences.

Physiology and Hygiene.

1. Through what passages would the blood flow in going from one of the cavities of the heart to the stomach and thence to the cavity from which it started.

2. Where in the system is the blood changed from arterial to venous blood and where from venous to arterial.

3. What is meant by inspiration and expiration. How are they brought about?

4. Explain how muscular exercise effects the circulation and other vital processes effected in consequence?

5. Explain why pressure on the veins by the clothing is injurious, and give examples?

6. What waste matters leave the body by the skin—what by the kidneys and what by the lungs?

7. What is the pulse, and why is there usually no pulse in the veins.

TO THE TEACHERS.

The Proprietor of THE "FREDERICTON GLOBE" being desirous of increasing his circulation, and at the same time making the "GLOBE"

A BENEFIT TO EVERY TEACHER,

in the Province, will open a Teacher's column, where any who wish may have the privilege of expressing any views they may have, to further the cause of education, and make such suggestions as they deem advisable to better the present school system.

The GLOBE will publish the Monthly Examination Papers, as well as the Final, given in the Normal School, thereby giving those teachers who propose returning for a higher class, every advantage, by placing before them each month, the work that is carried on in the Normal School, and also the Entrance and Final Examination Papers.

Feeling that by so doing the proprietor will be making the GLOBE particularly interesting for the teachers

THROUGHOUT THE PROVINCE,

and as our teachers' column will be open to all, and contain articles of special interest to every teacher, we wish the assistance of all the teachers, to aid in greatly increasing our circulation, and by so doing add names to the subscription list of the paper advocating the interests of our provincial teachers.

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Yours Respectfully,

A. J. MACAUM,

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Fredericton, N. B.

Address All Communications to P. O. Box, 315.

graphis formulas for the acid and salt in both reactions.

8.—Give the chemical and physical properties known to you, of muriatic acid aqua fortis, caustic soda and hydric oxide, and write their formulas.

General History and Geometry.

SENIORS. Time 1½ hrs.

Note.—Give references where you can. The young ladies in the class may answer questions in book 2 or in book 4 together with that in book 3, the young men in books 4 and 6. Contractions may be used.

1. Write a short but definite account

associated with the 47th, book 1.

6. Book 3.—Define a chord and a secant and prove that a chord cannot be partly without the circle.

7. Book 4.—Arrange in natural groups or in tabular form the substance of the enunciations of the fifteen or sixteen propositions of this book.

8. Book 4.—Enunciate and prove one of the problems for describing a rectilinear figure about a circle.

9. Book 4.—Enunciate and prove the last proposition in this book.

10. Book 6.—Prove that a straight line cutting two sides of a triangle and parallel to the third divides the first two