

I hope to be able to submit a summary* of the examiners' reports soon after the middle of February. I cannot hope to do so earlier, seeing that the examination was not over till the evening of the 17th instant.

The music papers were set by local examiners. The other papers, with the exception of those for drawing, I attach to this report.

I have, &c.,

WM. JAS. HABENS,

Inspector-General of Schools.

The Hon. the Minister of Education.

EXAMINATION PAPERS.

Elementary Science.—For Class E. Time allowed: 3 hours.

1. Describe the chief characteristics of the three states of matter. To which form of energy is latent heat to be referred?
2. Describe exactly what is meant by centrifugal force. Give examples.
3. Draw a diagram to illustrate the action of a common fountain. How could you make a fountain by means of a tumbler of water and an indiarubber tube?
4. What is meant by specific gravity? How would you ascertain the specific gravity of a piece of lead?
5. How is power gained in a screw-jack? The handle of a jack is 3ft. long; the screw has three turns to the inch: what power is gained?
6. Describe fully the properties of a bar-magnet. How would you show the inductive action of the earth upon soft iron?
7. Contrast magnetism and frictional electricity.
8. How may a voltaic current be made to produce heat, light, magnetism, mechanical work, and chemical action respectively?
9. What are respectively the chief characteristics of acids, bases, and salts? Give examples, with formulæ, of each of the three.
10. Describe in detail how a plant gets its food.

Domestic Economy and Laws of Health.—Alternative with Elementary Science for Class E. Time allowed: 3 hours.

1. Describe the effect of heat upon air. How would you show this effect to your pupils? Draw a diagram to show how heated gases are made to circulate around the oven of a range.
2. For what several purposes may yeast be used in cooking? What is the reason for its being used?
3. What are the several ways of using tomatoes?
4. Describe the several ways in which fruit, such as gooseberries, may be preserved for winter use. Discuss the advantages of each.
5. Describe how to make a vegetable soup that shall contain all the essential foods.
6. What are the means by which the lungs are expanded and contracted? How does tight-lacing affect the mechanism of breathing?
7. Describe a sweat-gland in detail, and explain its functions.
8. Show by a diagram the course a blood-corpuscle takes in passing from the right auricle to the left ventricle. Write on the diagram the names of all the valves it passes.
9. Name and discuss the several advantages that are possessed by a house that stands on a rise.
10. Describe the most perfect mode of connecting a kitchen sink with a drain. Give diagrams, and explain the uses of the several parts.

Elementary Experimental Science.—For Class D. Time allowed: 3 hours.

1. Describe any simple form of Atwood's machine, and show how the elementary facts of force and inertia may be illustrated by its means.
2. What is centrifugal force? Show some of the means by which it may be illustrated.
3. Describe some of the experiments that may be made by means of a ball hanging from the ceiling, and state the principles the experiments illustrate.
4. Describe how you would make a simple experiment to illustrate the action of a diving-bell.
5. How would you make the experiment to show that water boils at a lower temperature at reduced pressure?
6. Describe various simple experiments by which the attraction and repulsion of frictional electricity may be illustrated.
7. Describe in detail how you would make hydrogen with H_2SO_4 and zinc, what precautions you would take in lighting it, what experiments you would make with it, and how you would crystallize the sulphate of zinc produced.
8. How would you make experiments to illustrate the action of carbonic acid in nature?
9. Describe how the gluten may be got out of flour, and the starch out of a potato.
10. Describe some piece of apparatus to illustrate the mechanism of breathing.