

KENYA JUNIOR SCHOOL EDUCATION ASSESSMENT**2026****INTEGRATED SCIENCE****Paper 2 Prediction 3****905/2 Time 1 hour 30 marks**

Name

Assessment number

School

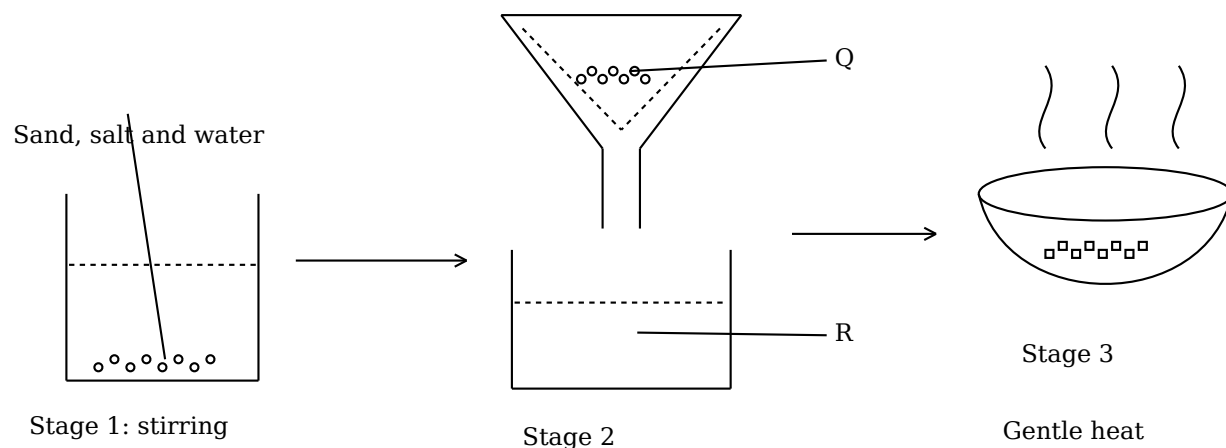
INSTRUCTIONS TO CANDIDATES

1. Answer all three questions. Each question carries 10 marks.
2. Use the diagrams, measurements and experimental results provided.
3. Use a ruler and a non-programmable calculator where necessary.
4. Print this paper on A4 at 100% actual size. Do not use Fit to page.
5. Give measurements to the nearest millimetre and include units.
6. Show all necessary working. Take gravitational field strength as 10 N/kg.

Diagrams are not drawn to scale unless otherwise stated.

QUESTION ONE (10 marks)

A learner adds water to a mixture of sand and table salt, stirs it, then carries out the stages shown. Stage 3 uses the clear liquid collected in Stage 2.



(a)(i) State two observations made when the mixture is stirred in Stage 1. **(2 marks)**

(ii) Name the liquid collected at R. **(1 mark)**

(b) Explain why the learner stirs the mixture. **(1 mark)**

(c) Name the separation method used in Stage 2. **(1 mark)**

(d) Identify the solid at Q. **(1 mark)**

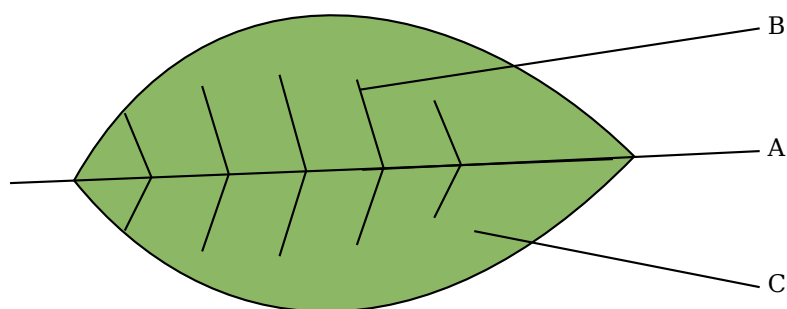
(e) Describe how dry salt can be obtained from liquid R. **(2 marks)**

(f) State one precaution when handling the hot dish in Stage 3. **(1 mark)**

(g) Is dissolving salt in water a physical or a chemical change? **(1 mark)**

QUESTION TWO (10 marks)

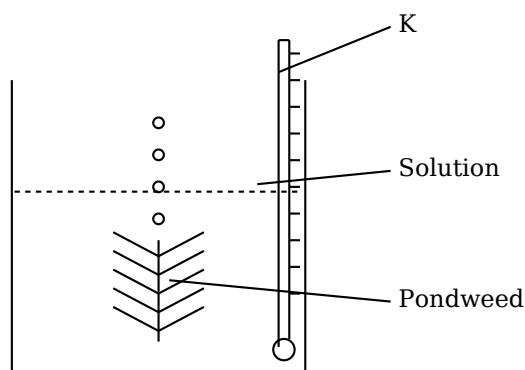
A learner examines the fresh green leaf shown and investigates photosynthesis in pondweed.



(a) Name the leaf parts labelled A, B and C. **(3 marks)**

(b) State three features of a typical green leaf that enable it to carry out photosynthesis efficiently. **(3 marks)**

The learner places equal lengths of the same species of pondweed in different concentrations of sodium hydrogencarbonate solution. The solution supplies dissolved carbon dioxide. Light intensity and water temperature are kept constant. Bubbles are counted for one minute in each trial.



Question Two continued

(c)(i) Name apparatus K in the set-up on the previous page. **(1 mark)**

(ii) The table shows the results. The concentration is expressed as grams of sodium hydrogencarbonate per 100 cm³ of solution.

Concentration	Trial 1	Trial 2	Trial 3	Mean
0.0	5	6	7	6
0.1	10	12	14	12
0.2	16	19	19	L
0.3	23	24	25	24
0.4	27	28	29	28

All bubble counts are numbers of bubbles per minute.

Calculate the value of L. **(1 mark)**

(iii) At which concentration is the mean bubble count 24 per minute? **(1 mark)**

(iv) State the relationship between sodium hydrogencarbonate concentration and the rate of photosynthesis over the range tested. **(1 mark)**

Question Three continued

(c) Calculate the weight of the block. Use $\text{weight} = \text{mass} \times \text{gravitational field strength}$ and take gravitational field strength as 10 N/kg . **(2 marks)**

(d) Calculate the greatest pressure the block can exert on a horizontal surface. Give the answer in N/cm^2 . Use $\text{pressure} = \text{force} \div \text{contact area}$. **(3 marks)**

END OF EXAMINATION PAPER