

THE KENYA NATIONAL EXAMINATION AND ASSESSMENT PREDICTION SERIES

Candidate's Name		Assessment Number	
School Name		School Code	
Candidate's Signature		Date	

KENYA JUNIOR SCHOOL EDUCATION ASSESSMENT

905/2: INTEGRATED SCIENCE (Practical)

PAPER 2

TERM 2 END-TERM 2025

TIME: 1 hour 30 minutes

INSTRUCTIONS TO CANDIDATES

1. Write your name and assessment number in the spaces provided above.
2. Write the name and code of your school in the spaces provided above.
3. Sign and write the date of the assessment in the spaces provided above.
4. This paper consists of 2 questions.
5. Answer BOTH questions in the spaces provided on this QUESTION PAPER.
6. Do NOT remove any page from this question paper.
7. Answer the questions in English.

For official use only

Task	Task 1	Task 2	TOTAL
Question	1	2	SCORE
Maximum Score	20	10	30
Candidate's Score			

This paper consists of 4 printed pages.

Candidates should check the question paper to ascertain that all the pages are printed as indicated and that no questions are missing.

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Turn over

-INTEGRATED SCIENCE-

CBE

QUESTION ONE (20 marks)

You are required to separate a mixture of sand, maize flour, and salt using simple laboratory techniques. You are provided with the following:

- ⊗ A mixture of sand, maize flour, and salt
- ⊗ Water
- ⊗ Sieve
- ⊗ Beaker
- ⊗ Filter funnel
- ⊗ Filter paper
- ⊗ Evaporating dish
- ⊗ Source of heat (e.g., Bunsen burner, spirit lamp)
- ⊗ Tripod stand and wire gauze

Procedure:

1. Observe the mixture and record its appearance in the table below.
2. Use the sieve to separate the larger particles from the finer ones. Transfer the mixture to the sieve and shake gently over a piece of paper. Record what passes through the sieve and what remains on the sieve.
3. Transfer the material that passed through the sieve into a beaker. Add water and stir until the salt dissolves. Record your observation.
4. Filter the contents of the beaker using the filter funnel and filter paper. Record what is collected in the beaker below the funnel (filtrate) and what remains on the filter paper (residue).
5. Pour the liquid (filtrate) from the beaker into an evaporating dish. Heat the evaporating dish gently until all the water evaporates. Record what remains in the dish.

Record your observations and what is separated/recovered at each step in the table below. (12 marks)

Step	Procedure	Observation	Material Separated/Recovered
1	Initial Observation of Mixture		N/A
2	Sieving	What remains on sieve:	What remains on sieve:
		What passes through sieve:	What passes through sieve:
3	Adding Water and Stirring		
4	Filtration	Filtrate (liquid collected):	Residue (on filter paper):
		Residue (on filter paper):	
5	Evaporation of Filtrate	What remains in evaporating dish:	What remains in evaporating dish:

(a) Name the separation technique used in step 2. (1 mark)

(b) Name the separation technique used in step 4. (1 mark)

(c) What were the three original components of the mixture? (3 marks)

(d) State three basic science skills you applied in this practical. (3 marks)

QUESTION TWO (10 marks)

You are provided with some water and apparatus to measure its volume and temperature.

You are provided with the following:

- ⊖ Water
- ⊖ Measuring cylinder
- ⊖ Thermometer
- ⊖ Beaker

Procedure:

1. Pour some water into the beaker.
2. Using the measuring cylinder, carefully measure 60 cm^3 of the water from the beaker. Record the volume.
3. Pour the 60 cm^3 of water into a clean beaker.
4. Measure the temperature of the water in the beaker using the thermometer. Record the temperature.

(a) Record your measurements:

(i) Measured volume of water = _____ cm^3 (3 marks)

(ii) Measured temperature of water = _____ $^{\circ}\text{C}$ (3 marks)

(b) State the SI unit for volume. (1 mark)

(c) State the SI unit for temperature. (1 mark)

(d) Name the two main pieces of apparatus you used for measurement in this practical. (2 marks)
