

Learner's name _____

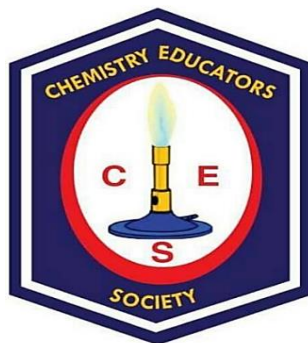
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CHEMISTRY

Paper 2

Nov. 2023

2 hours



UGANDA CERTIFICATE OF LOWER SECONDARY EDUCATION

End of Year Examinations-2023

S.2 CHEMISTRY

Paper 2

(Practical)

2 hours

INSTRUCTIONS TO LEARNERS:

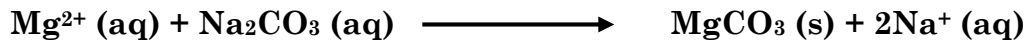
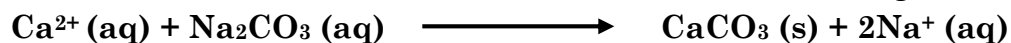
*The paper contains **ONE** compulsory item.*

Item 1

Government of Uganda recently launched a campaign to extend piped water in rural areas across the country. Just after, four months, most water pipes in Moyo district were reported blocked and with reduced speed of flow of water.

The project implementers have proposed to remove all damaged installed pipes, treat water first with sodium carbonate, and then install new pipes.

Mineral ions in water react with sodium carbonate according to the equations.



The project implementers, need to include a clear budget of how much quantity of sodium carbonate would be required to improve water in different areas in Moyo District.

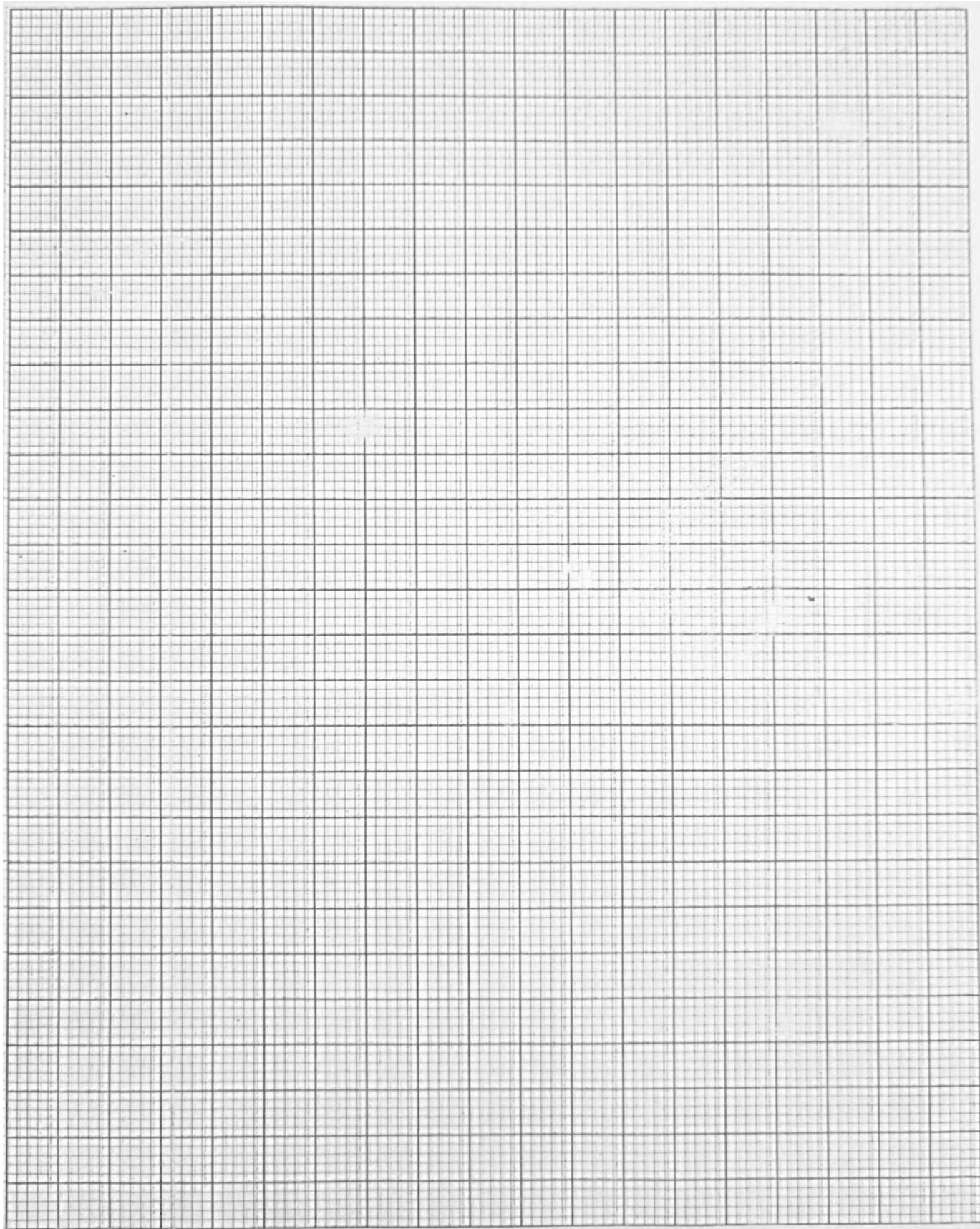
You are provided with five water samples **A, B, C, D** and **E** collected from five counties in Moyo, and **HA1** which is a solution of sodium carbonate.

Task.

Carry out a scientific investigation to determine how amount of sodium carbonate would vary in the different counties and provide a suitable advice.

Learners response

*For
teachers
use only*



Confidential info.

HA1: made by dissolving 53.0g of sodium carbonate in 500cm³ of distilled water.

Water sample A: made by dissolving 9.5g of magnesium chloride in 250cm³ of distilled water

Water sample B: made by dissolving 19g of magnesium chloride in 250cm³ of distilled water

Water sample C: made by dissolving 24g of magnesium chloride in 250cm³ of distilled water

Water sample D: made by dissolving 28.5g of magnesium chloride in 250cm³ of distilled water.

Water sample E: made by dissolving 35.6g of magnesium chloride in 250cm³ of distilled water

All learners must have access to lab apparatus necessary for the investigation.

