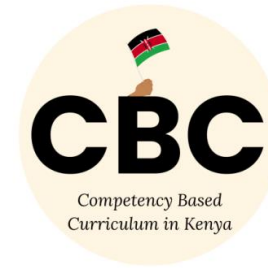




COMPETENCE BASED CURRICULUM
JUNIOR SCHOOL
FORMATIVE ASSESSMENT
TERM ONE 2024
GRADE 8



Name.....
Centre
Assessment No. Stream.....
Learner's Sign..... Date:

INTEGRATED SCIENCE

1. The following table represents basic quantities. Write their SI units and their symbols.(5 mks)



	quantity	SI Unit	Symbol
1	Length	Metres	M
2	Mass	Grammes	g
3	Time	Seconds	s
4	Electric current	Amperes	A
5	Temperature	Kelvin	K
6	Amount of substance	Mole	mol
7	Luminous intensity	Candela	Cd

2. Name the fire gadget below. (1 mk)



Fire extinguisher

3. What is the importance of various elements and compounds? (4 mks)
- Gold:
 - It is widely used to make jewellery as it is fairly soft and easy to work with.
 - It is attractive in appearance and neither rust or discolours.
 - Silver:
 - It is used in making jewellery but it tends to discolour.
 - It is also used in making cutlery, teapots and medals.
4. State the meaning of the following Fire safety posters in the environment. (3mks)

 <p>In case of fire out break this is the point to assemble.</p>	 <p>Show the route to use and exit the affected area in case of fire.</p>	 <p>Used to alert the users of the premises to exit the area due to fire outbreak</p>
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5. What are the three components of integrated science? (3 mks)
- Biology
 - Chemistry
 - Physics
 - Health education
 - Astronomy
6. Give two differences between luminous and non-luminous flame.(4 mks)

Luminous flame	Non-luminous flame
Yellow/orange in colour	Blue in colours
Used for lighting	Used for heating
Has 4 regions and burns quietly	Has 3 regions and noisy
Produced when air hole is closed	Produced when air hole is open

Produces soot	Does not produce soot
Its wavy and large	Its straight

7. State three characteristics of liquids. (3 mks)

- a. A liquid has no definite shape.
That means a liquid changes its shape to take the shape of the container or vessel in which it is put.
- b. A liquid also changes its shape when spilled on the floor.
For example, when a liquid is poured in two different containers, the liquid will display two different shapes that resemble or are similar to the container they are placed in. This means liquids lack a definite shape
- c. Has no definite volume etc

8. Change of state of matter has many applications in day-to-day life. Some of these changes are? (3 mks)

- a. Refrigerators. Liquids evaporate and absorb heat in the process. A refrigerator works by using a liquid to remove heat from the food items inside and transfer it to the surrounding. The liquid is first heated and then cooled at the back of the fridge where the heat is removed. The process of changing liquid to gas cools the food. Ice cream vendor.
- b. Ice cream vendors place ice inside their ice cream carts. The ice absorbs heat from the container surrounds and changes to a gas. This leaves the inside of the ice cream cart cold, thus maintaining the ice cream in frozen state.
- c. Melting metals. Metals are heated to a molten state making it possible to shape and form them into desired objects or structures.
- d. Generating electricity. Water can be converted to steam, which can in turn be used to drive turbines to generate electricity.
- e. Fog formation. Fog forms when water vapour (gaseous state) condenses. During condensation, molecules of water or water vapour combine to make tiny liquid water droplets that are suspended in the air. Fog reduces visibility. Some animals such as insects, depend on fog as a source of water, especially in desert climate.

9. Mention six classes of fire. (6 mks)

Class	Type	Involves
Class A	Ordinary fires.	Fires that burn materials such as wood, cloth, paper and plastics.
Class B	Flammable liquids.	Fires that involve liquids such as grease, oils, paraffin, petrol, diesel and alcohol.
Class C	Flammable gases.	Fires that involve gases such as propane, butane and methane.
Class D	Metallic fires.	Fires that are ignited by combustible metals such as potassium, sodium, aluminium and magnesium.
Class E	Electrical fires.	Fires that are caused by electricity or involve electrical equipment and appliances, for example mobile phone and computer chargers.
Class F	Cooking fires	These fires are ignited by cooking oil and animal fats.

10. State three components of fire. (3 mks)

- a. Fuel,
- b. Heat and
- c. Oxygen.

11. State three fire control measures. (3 mks)

- a. Removing fuel: **Use fire-resistant materials where possible. This will help to prevent the fire from starting and spreading.**
- b. Removing heat: **Water is mostly used to remove the heat from fire. A water fire extinguisher would be the safest way of doing this. However, these extinguishers cannot be used on all types of fire.**
- c. Removing oxygen: **It is important to remove oxygen gas from fire triangle to prevent spread of a fire. This can be achieved by using either a carbon (IV) oxide or a foam fire extinguisher.**

12. Identify the following lab hazards. (2 mks)



Flammable materials



Radiation

13. Indicate their colour in the given solutions. (6 mks)

Indicator	Acidic solution	Neutral solution	Basic solution
Methyl Orange	Red	Yellow	Yellow
Phenolphthalein	Colourless.	Colourless	Pink

14. State two uses of acids. (2 mks)

- Vinegar has various household uses such as preservation.
- Citric acid is an important part of lemon juice and orange juice; it can also be used in food preservation.
- Sulphuric acid is widely used in batteries that are used to start the engines of automobiles.
- Industrial production of dyes, paints and fertilizers involve the use of Sulphuric acid and nitric acid.
- Phosphoric acid is a key ingredient in many soft drinks.

15. Identify three basic science skills one gains in science practical. (3 mks)

- Manipulation
- Observation
- Calculation
- Prediction
- Measurement etc

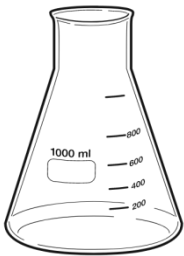
16. State four safety precautions to undertake to avoid fire outbreak in school. (4 mks)

- Avoid build up of rubbish that can fuel fire.
- Put measures in place to detect fires and warn people quickly in case fires start. This can be done successfully by installing smoke detectors and fire alarms or bells.
- Have correct fire fighting equipment to put out a fire quickly.
- Keep fire exits and escape routes clearly marked and unobstructed at all times.
- Give proper training on emergency procedures to follow, including fire drills.

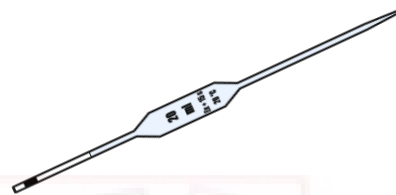
17. Access to information on flammable substances is important for the following reasons. Namely? (3 mks)

- It makes us aware of all hazards (fire and explosion) of the materials we are handling.

- b. Helps us to know which of the materials or products we are working with are flammable.
 - c. Helps us to remove sources of ignition (sparks, smoking, flames or hot surfaces) when working with flammable and combustible products.
 - d. Helps to use approved equipment, including labelled safety containers, for flammable liquids.
 - e. Helps to know the proper personal protective equipment to use when handling hazardous liquids.
 - f. Helps us to know how to handle emergencies (fires, spills, personal injury) involving the hazardous materials we work with.
18. Name the lab apparatus below. (2 mks)



Conical flask



Pipette

19. Outline two safe ways of handling of the Bunsen burner. (2 mks)
- a) Always turn off the Bunsen burner after use.
 - b) Always make sure that flammable liquids and combustible materials are not near the Bunsen burner to avoid the risk of unwanted fires and explosions.
 - c) When lighting the gas, have your strikers ready to avoid excess gas leakage that might lead to an explosion.
 - d) Once you are done with the Bunsen burner, it is critical to turn off the main gas valve to avoid leakages.
 - e) The burner should cool completely after use before any further handling.

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.....Every learner counts

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