**PRIMARY SCHOOL EDUCATION ASSESSMENT**

**AUGUST ENGAGEMENT ACTIVITIES 2026**

**GRADE 6 – SCIENCE AND TECHNOLOGY**

**Time:** 1 Hour 30 Minutes

**LEARNER'S DETAILS**

**Name:** _____. **School:** _____.

**Assessment Number:** _____. **Date:** _____.

**School Code:** _____. **Signature:** _____.

## Instructions for Learners

1. Write your name, school name, and assessment number in the spaces provided.
2. Check the question paper carefully to ensure all pages are printed and no questions are missing.
3. Answer all the questions in the spaces provided.
4. Answer **all questions**.
5. Write your answers clearly in the spaces provide.

**FOR EXAMINER'S USE**

| SECTION | TASK 1 | TASK 2 | % SCORE | EE1 | EE2 | ME1 | ME2 | AE1 | AE2 | BE1 | BE2 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| SCORE RANGE | 20 MARKS | 30 MARKS | | 90-100 | 75-89 | 58-74 | 41-57 | 31-40 | 21-30 | 11-20 | 1-10 |
| POINTS | | | | 8 POINTS | 7 POINTS | 6 POINTS | 5 POINTS | 4 POINTS | 3 POINTS | 2 POINTS | 1 POINT |
| LEARNER'S TOTAL SCORE | | | | | | | | | | | |

## SECTION A: (20 MARKS)

**Answer ALL questions in this section.**

1. During a nature walk at the back of the school shamba after a heavy rainy season, Omwamba noticed a strange, umbrella-shaped organism growing on a decaying log of wood. His teacher told him it belongs to the fungi kingdom.

(a) **Identify** the specific type of fungus Omwamba saw on the log. (1 mark)

_____

(b) **State** two reasons why this fungus is important to nature or the environment. (2 marks)

i) _____

ii) _____

(c) **Differentiate** between a mushroom and a toadstool. (1 mark)

_____

_____

2. Grade 6 learners collected different small animals in containers during their environmental studies project. They observed the two organisms shown in the diagrams below.

Organism X

Organism Y

(a) **Name** the group of invertebrates to which **Organism X** belongs. (1 mark)

_____

(b) **Outline** two physical characteristics that distinguish **Organism Y** from **Organism X**. (2 marks)

i) _____

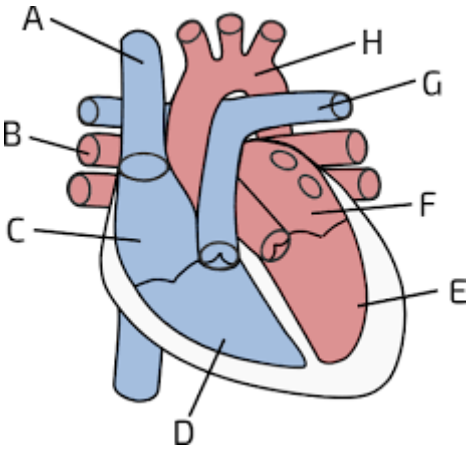
ii) _____

(c) **Mention** one safety precaution learners must practice when handling live invertebrates like ticks or centipedes. (1 mark)

_____

_____

3. Below is a simplified diagram of the human heart, which is a major organ in the circulatory system.




(a) **Identify** the chambers labeled **B** and **E**. (2 marks)

Chamber **B**: _____

Chamber **E**: _____

(b) **State** the function of the blood vessels G and H. (1 mark)

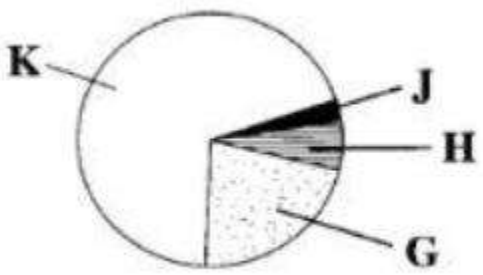
_____

_____

(c) A member of the local community was diagnosed with a condition where their blood pressure is consistently too high. **Name** this common health condition of the circulatory system. (1 mark)

_____

4. The pie chart below represents the percentage composition of the different gases that make up the earth's atmosphere.




(a) **Identify** the gas represented by the largest sector, **K**. (1 mark)

_____

(b) **State** one important use of the gas represented by sector **G** in daily life. (1 mark)

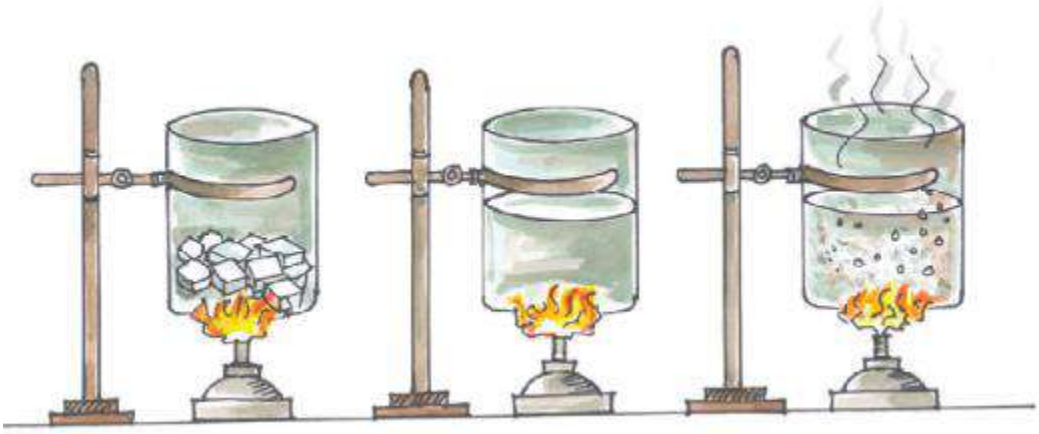
_____

(c) **Outline** two human activities that introduce harmful pollutants into the air, causing air pollution. (2 marks)

i) _____

ii) _____

5. A learner placed some ice cubes in a beaker and heated them over a Bunsen burner until the water boiled completely into vapor.



(a) **Name** the change of state that occurs when: (2 marks)

i) Ice turns into liquid water: _____

ii) Liquid water turns into vapor/steam: _____

(b) **Define** the term *sublimation*. (1 mark)

_____

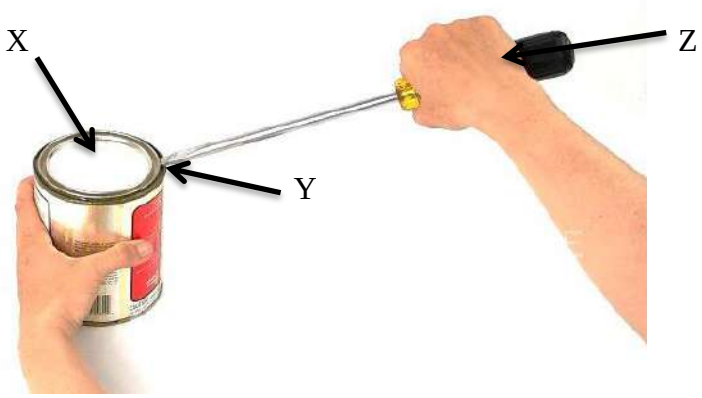
_____

(c) **Mention** one real-life application where cooling causes a change of state to preserve items. (1 mark)

_____

## SECTION B: 30 MARKS

6. A worker wants to open a tightly closed paint tin lid using a strong metal screwdriver as shown below.




(a) **Identify** the points marked **X**, **Y**, and **Z** as either *Effort*, *Load*, or *Fulcrum/Pivot*. (3 marks)

Point **X**: _____

Point **Y**: _____

Point **Z**: _____

(b) Look at the tools listed below. **Match** each lever tool to its correct classification by writing *First Class*, *Second Class*, or *Third Class*. (3 marks)

i) A pair of scissors: _____

ii) A wheelbarrow: _____

iii) A pair of kitchen tongs: _____

7. A delivery truck arrived at the school store with heavy crates of textbooks. The workers used a strong wooden plank to slide the boxes down from the truck bed to the ground.

(a) **State** how the wooden plank acts as a simple machine to make the workers' work easier. (2 marks)

_____

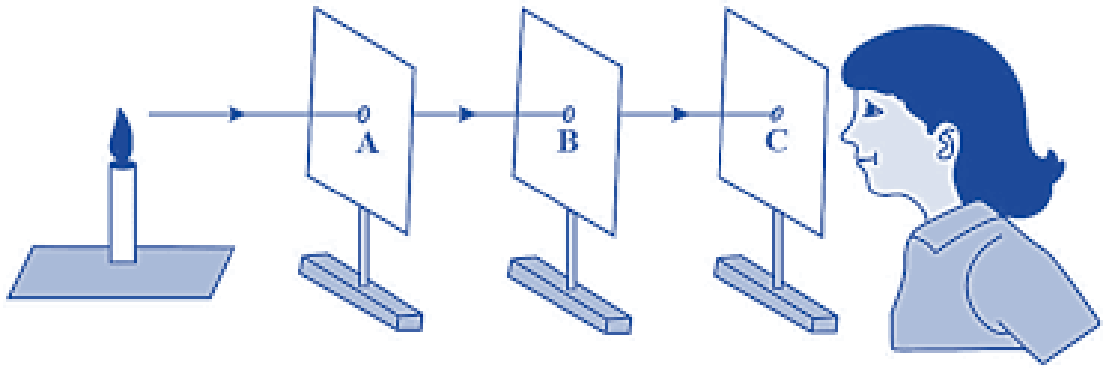
_____

(b) **Identify** two other practical examples of slopes or inclined planes used in the school or home environment. (2 marks)

i) _____

ii) _____

8. Learners set up an experiment where three pieces of cardboard with small holes aligned in a straight line were placed in front of a burning candle.




(a) **State** what is observed when the middle cardboard is moved slightly out of the straight line. (1 mark)

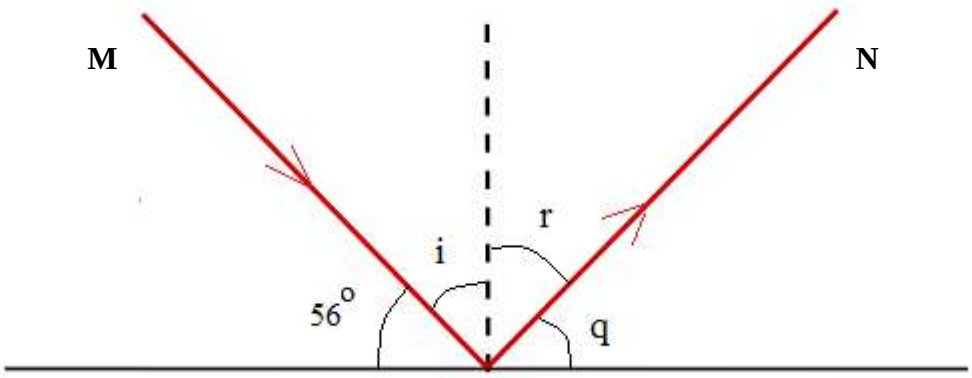
_____

_____

(b) What property of light does this specific experiment demonstrate? (1 mark)

_____

(c) Look at the ray diagram below showing light hitting a smooth, shiny plane mirror surface.




**Name** the parts labeled: (2 marks)

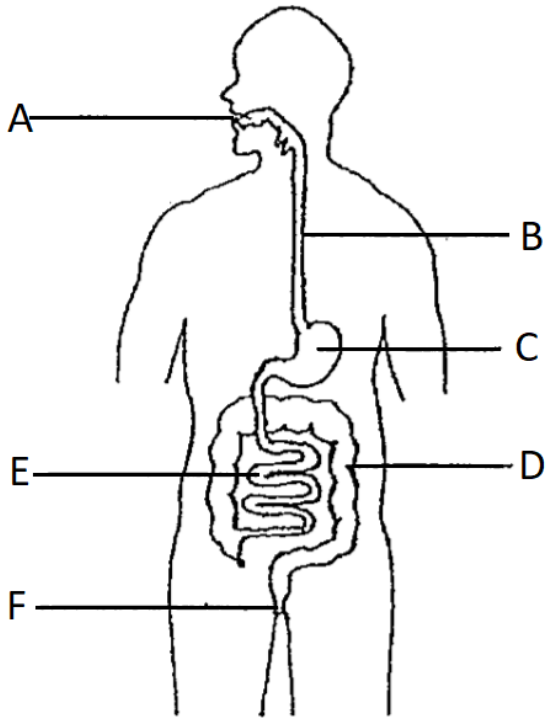
i) Ray **M**: _____

ii) Ray **N**: _____

(d) **Differentiate** between a *transparent* material and an *opaque* material based on how light travels through them. (2 marks)

| ***Transparent* material** | ***Opaque* material** |
|---|---|
| | |

9. The diagram below shows the organs of the human digestive tract where food is broken down and absorbed.




(a) **Name** the parts labeled **B** and **E**. (2 marks)

Part **B**: _____

Part **E**: _____

(b) **State** the function of the juice produced in part **C** during digestion. (1 mark)

_____

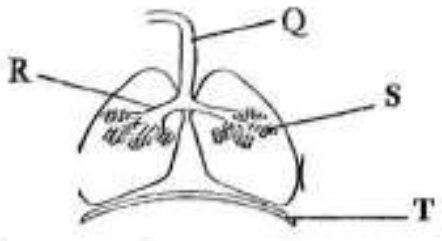
_____

(c) **Outline** two healthy habits a Grade 6 learner should practice to prevent disorders of the digestive system. (2 marks)

i) _____

ii) _____

10. The diagram below illustrates the organs responsible for gaseous exchange in the human body.




(a) **Identify** the structures labeled **Q** and **T**. (2 marks)

Structure **Q**: _____

Structure **T**: _____

(b) **State** the function of the tiny air sacs labeled **S**. (1 mark)

_____

11. A school community noticed that a nearby river had soap foam, plastic bottles, and a strange smell coming from nearby sewage lines.

(a) **Identify** the environmental problem affecting this water body. (1 mark)

_____

(b) **State** two negative effects of this problem on living organisms in the water. (2 marks)

i) _____

ii) _____

(c) **Mention** one method the school can implement to practice water conservation. (1 mark)

_____

## ANSWER KEY

### SECTION A (20 MARKS)

1. **(a)** Mushroom. *(1 mark)*

   **(b)** Decomposing organic matter / recycling nutrients in nature; providing food for other organisms. *(Any two: 2 marks)*

   **(c)** A mushroom is generally edible, while a toadstool is a poisonous type of fungus. *(1 mark)*

2. **(a)** Arachnids. *(1 mark)*

   **(b)** Organism Y (Insect) has 3 body parts and 6 legs, while Organism X (Spider) has 2 body parts and 8 legs. *(Any two clear differences: 2 marks)*

   **(c)** Wear protective gloves / use forceps or tongs to avoid direct skin contact. *(1 mark)*

3. **(a)** Chamber A: Right Auricle (Atrium); Chamber B: Left Ventricle. *(2 marks)*

   **(b)** Arteries transport oxygenated blood under high pressure away from the heart to body organs. *(1 mark)*
   **(c)** Hypertension / High Blood Pressure. *(1 mark)*

4. **(a)** Nitrogen. *(1 mark)*

   **(b)** Supporting burning (combustion) / respiration in living things. *(1 mark)*

   **(c)** Factory smoke emissions; burning domestic solid wastes open in the air. *(2 marks)*

5. **(a)** i) Melting. ii) Evaporation / Vaporization. *(2 marks)*

   **(b)** Sublimation is the process where a solid turns directly into a gas without changing into a liquid first. *(1 mark)*

   **(c)** Freezing water into ice to preserve fresh fish or milk products. *(1 mark)*

### SECTION B (30 MARKS)

6. **(a)** X: Load; Y: Fulcrum (Pivot); Z: Effort. *(3 marks)*

   **(b)** i) First Class. ii) Second Class. iii) Third Class. *(3 marks)*

7. **(a)** It reduces the effort required to lower or lift heavy loads by increasing the distance over which the force is applied. *(2 marks)*

   **(b)** Ramps for wheelchairs; staircases / ladders. *(2 marks)*

8. **(a)** The light from the candle flame can no longer be seen. *(1 mark)*

   **(b)** Light travels in a straight line (Rectilinear propagation of light). *(1 mark)*

   **(c)** i) Incident ray. ii) Reflected ray. *(2 marks)*

   **(d)** Transparent materials allow all light to pass through them clearly, while opaque materials do not allow any light to pass through them at all. *(2 marks)*

9. **(a)** B: Foodpipe, oesophagus, gullet; E: Small Intestine. *(2 marks)*

**(b)** It contains hydrochloric acid and enzymes to break down proteins and kill harmful bacteria. *(1 mark)* **(c)** Chewing food thoroughly before swallowing; drinking plenty of clean water / eating high-fiber foods. *(2 marks)*

10. **(a)** W: Trachea (Windpipe); V: Diaphragm. *(2 marks)*

    **(b)** It is the site where oxygen from the air enters the blood and carbon dioxide leaves the blood (Gaseous exchange). *(1 mark)*

11. **(a)** Water pollution. *(1 mark)*

    **(b)** i) Choking and killing fish/aquatic life.

    ii) Spreading waterborne diseases like cholera if consumed. *(2 marks)*

    **(c)** Rainwater harvesting from roofs / recycling water used to wash vegetables to water garden plants. *(Any one valid point: 1 mark)*