



**basic education**

Department:  
Basic Education  
REPUBLIC OF SOUTH AFRICA

**NATIONAL ASSESSMENT  
MOTHER TONGUE-BASED BILINGUAL EDUCATION  
(MTbBE): NS & TECH  
END OF YEAR: 2025**

**GRADE 4**

Subject: Natural Sciences and Technology

LoLTA: English

Marks: 40

Duration: 1 Hour 20 minutes

**excluding** 15 minutes reading time

Surname: \_\_\_\_\_ Name: \_\_\_\_\_

Class: \_\_\_\_\_ School Name: \_\_\_\_\_

District: \_\_\_\_\_

This test consists of 18 pages excluding the cover page.

## Instructions to the learner

1. You will receive 15 minutes reading time before you begin answering this test.
2. The teacher will take you through the practice exercise.
3. Read all the instructions and questions carefully.
4. Answer all the questions.
5. Your handwriting must be neat and legible.
6. Do not use a calculator.
7. All diagrams are not drawn to scale.

## Practice exercise

How to answer a multiple choice question and how to correct a mistake.

2. How many days are in a week?

A	2
<del>B</del>	<del>5</del>
C	7
D	31

If you made a mistake by circling B, draw a line through the letter B and its answer. Then circle the correct answer (letter C).

**The test starts on the next page.**



**Do not turn the page until you are told to do so.**

## SECTION A

Circle the letter of the **most** correct answer from question 1.1 – 1.13.

1.1 How would you explain what energy is? Energy ...

- A is only found in machines.
- B helps us do things like playing.
- C is what animals and plants can make.
- D is only man-made. (1)

1.2 Which activity requires the most energy in animals?

- A Sleeping in one place
- B Swallowing food without chewing
- C Running to catch prey
- D Sitting still in the shade (1)

1.3 What is the correct order in the following energy chain?

- A Grass → Sun → Cow → Lion
- B Sun → Grass → Cow → Lion
- C Cow → Sun → Grass → Lion
- D Sun → Cow → Grass → Lion (1)

1.4 The picture shows a torch.



Source: <https://image.made-in-china.com/202f0j00NokUSGvyIFqE/Portable-LED-Torch-Lamp-Water-Resistant-Handheld-Tactical-Flash-LED-Torch-Light-for-Outdoor-Camping-Emergency-Everyday-LED-Diving-Flashlight.webp>

What useful energy does the torch produce when switched on?

- A Heat energy
  - B Movement energy
  - C Light energy
  - D Sound energy
- (1)

1.5 The picture shows a pot placed on fire.



Source: [https://img.freepik.com/premium-photo/campfire-pot-vintage-fire-camping-cooking-cauldron-firewood-flame-hand-drawn-vector-illustration-outdoor-hot-meal-cook-sketch\\_73899-10646.jpg](https://img.freepik.com/premium-photo/campfire-pot-vintage-fire-camping-cooking-cauldron-firewood-flame-hand-drawn-vector-illustration-outdoor-hot-meal-cook-sketch_73899-10646.jpg)

Identify the input and output energies involved in cooking food in the pot.

	<b>Input Energy</b>	<b>Output Energy</b>
A	Heat energy in the pot	Light energy
B	Stored energy in the pot	Heat energy
C	Stored energy in wood	Heat energy
D	Heat energy in wood	Light energy

(1)

1.6 Which parts in a guitar vibrate to produce sound?

- A Metal keys
- B Strings
- C Wooden bars
- D Sticks

(1)

1.7 The picture shows a musical instrument known as a French horn.



How do we produce sound from the French horn?

- A Plucking
- B Beating
- C Shaking
- D Blowing

(1)

- 1.8 The picture shows big and small drums made from tins covered tightly with the same material. There are two drum sticks to beat the drums.



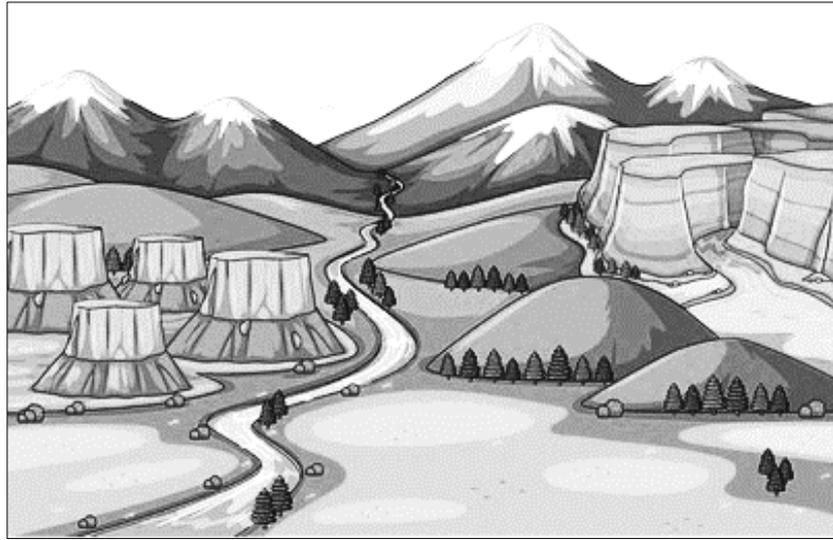
<https://tse2.mm.bing.net/th/id/OIP.dlaWWnWanFRU6OBd3OilxgHaHa?pid=ImgDet&w=206&h=206&c=7&dpr=1,6&o=7&rm=3>

Beating these drums produces different sounds because of their ...

- A materials.
- B sizes.
- C roundness.
- D drumsticks.

(1)

1.9 The picture shows features of the Earth.



Source: <https://www.shutterstock.com/image-vector/nature-scene-background-different-parts-260nw-1653961381.jpg>

Which list best describes the main **surface** features of the Earth in this picture?

- A Towns, roads, plants and buildings
  - B Rivers, mountains, air and valleys
  - C Continents, countries and capital cities
  - D Farms, factories and parks
- (1)

1.10 Explain how the Earth moves to form daytime and night-time. The Earth ...

- A moves on its orbit around the Sun once in 24 hours.
  - B moves on its orbit around the Sun once every 12 hours.
  - C moves in elliptical orbit around the Sun.
  - D spins on its own axis once in 24 hours.
- (1)

1.11 Which of the following is a feature of the Sun?

The Sun is a huge ball of very hot ...

- A gases.
- B rocks.
- C lava.
- D liquids. (1)

1.12 Why can animals and plants **not** survive on the Moon?

- A There is no air and water on the Moon.
- B The Moon is too far from the Earth.
- C It is always night on the Moon.
- D The Moon is extremely hot. (1)

1.13 How many days does it take for the Moon to complete its phases around the Earth?

- A  $21\frac{1}{2}$  days
- B  $29\frac{1}{2}$  days
- C 24 days
- D  $27\frac{1}{3}$  days (1)

Match Column A with Column B by drawing lines.

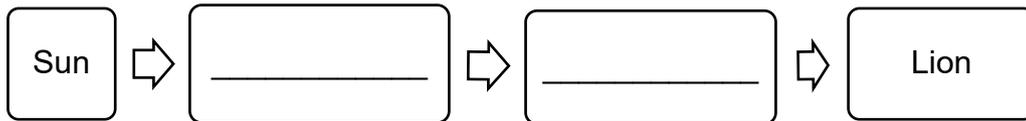
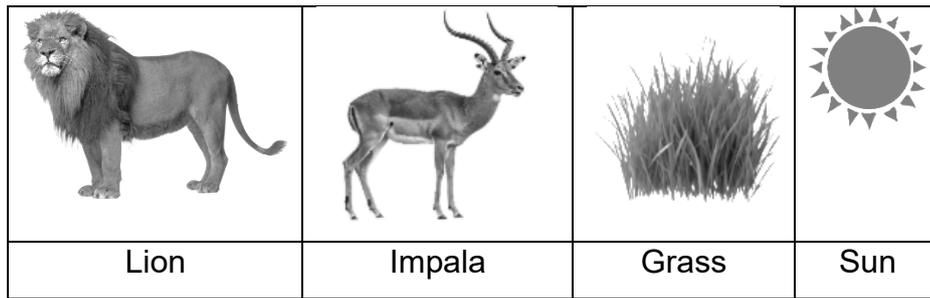
Column A		Column B		
1.14		a.	Blowing	(1)
1.15		b.	Heat	(1)
		c.	Sound	

Answer question 1.16 – 1.27 on the spaces provided.

Provide a correct term for each of the following statements.

- 1.16 The sequence that shows how energy is transferred from the Sun to living things.  
Answer: \_\_\_\_\_ (1)
- 1.17 The star that is closest to the Earth.  
Answer: \_\_\_\_\_ (1)
- 1.18 We get energy from food. Food is a ... of energy.  
Answer: \_\_\_\_\_ (1)

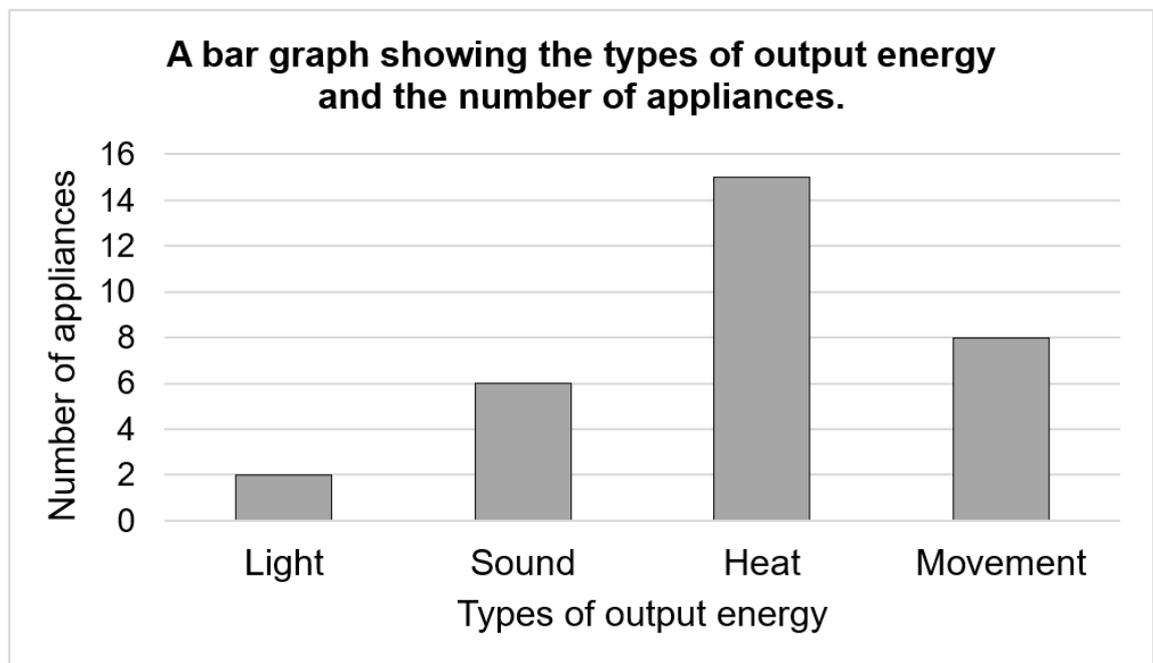
1.19 Use the given pictures to complete the diagram of energy flow.



(1)

1.20 Study the graph and answer the questions.

Grade 4 learners investigated the number of appliances that produce the most useful types of energy in their homes. The results are shown in the bar graph.



1.20.1 Identify from the bar graph which type of energy is produced the most.

Answer:

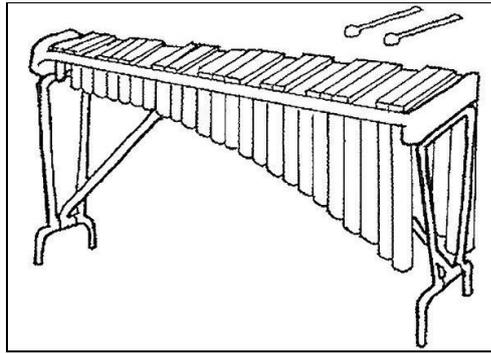
(1)

1.20.2 Give ONE reason for your answer in **1.20.1**.

Answer:

(1)

1.21 The picture shows a marimba musical instrument.



How is sound produced on this musical instrument?

Answer:

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(1)

1.22 The picture shows an indigenous instrument.



Source: <https://i.ebayimg.com/images/g/OMIAAOSw2DRkWOgx/s-l400.png>

What is the name of this instrument?

(1)

Answer:

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1.23 The diagram shows the continents and oceans of the Earth.



Source: [https://www.georgethegeographer.co.uk/Base\\_maps/Base\\_maps.html](https://www.georgethegeographer.co.uk/Base_maps/Base_maps.html)

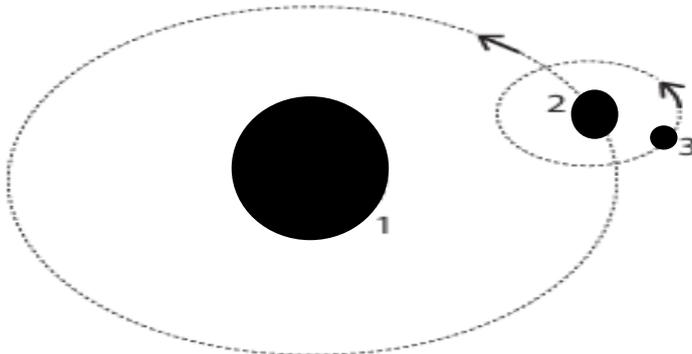
Identify the continents labelled A and B in the picture.

Answer:

A \_\_\_\_\_ (1)

B \_\_\_\_\_ (1)

1.24 The diagram shows part of the Solar System.



1.24.1 Which number represents the Earth?

Answer: \_\_\_\_\_ (1)

1.24.2 Which number represents the Moon?

Answer: \_\_\_\_\_ (1)

1.25 The picture shows the Moon.



Mention ONE feature of the Moon.

Answer:

(1)

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1.26 Read the Moon story and answer the question.

Once upon a time the Sun and the Moon were married. They had many children known as Stars. The Sun was very fond of his children and he always wanted to hold them. But he was very hot and so the Stars got burnt. The Stars did not like to be burnt and so they always ran away to hide when he came up into the sky. But the Stars liked to be with their mother, the Moon, because she was the cool one.

Source: Thunderbolt

1.26.1 According to the story, why do the Stars hide when the Sun appear in the sky during the day?

Answer:

(1)

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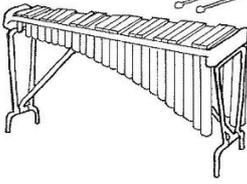
1.26.2 What is the CORRECT reason the stars are not visible during the day?

Answer:

(1)

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1.27 The picture shows different musical instruments.

			
A. Drums	B. Trumpet	C. Marimba	D. Shakers

Which musical instrument produces sound by blowing on it?

Answer: \_\_\_\_\_

(1)

## SECTION B

Circle the letter of the **most** correct answer from question 2.1 – 2.3.

2.1 Describe the term noise pollution.

- A Harmless sounds that are produced by musical instruments
- B Sounds that make people and animals relax and enjoy music
- C Unwanted sounds that can harm people and animals
- D Sounds that cannot damage our ears and human health (1)

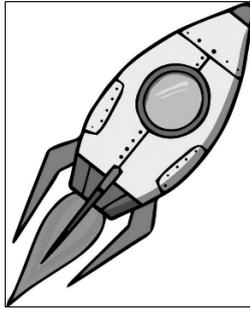
2.2 Study the pictures and answer the question.

		
i Drilling when someone wants to sleep	ii A fan cooling someone on a hot day	iii A violinist playing at a concert

Which of the object(s) is/ are sources of noise pollution?

- A i and iii
- B ii and iii
- C i
- D iii (1)

2.3 This is a picture of a rocket.



Source: <https://clipartmag.com/image/simple-rocket-ship-drawing-5.jpg>

How does a rocket move into Space from the Earth? It ...

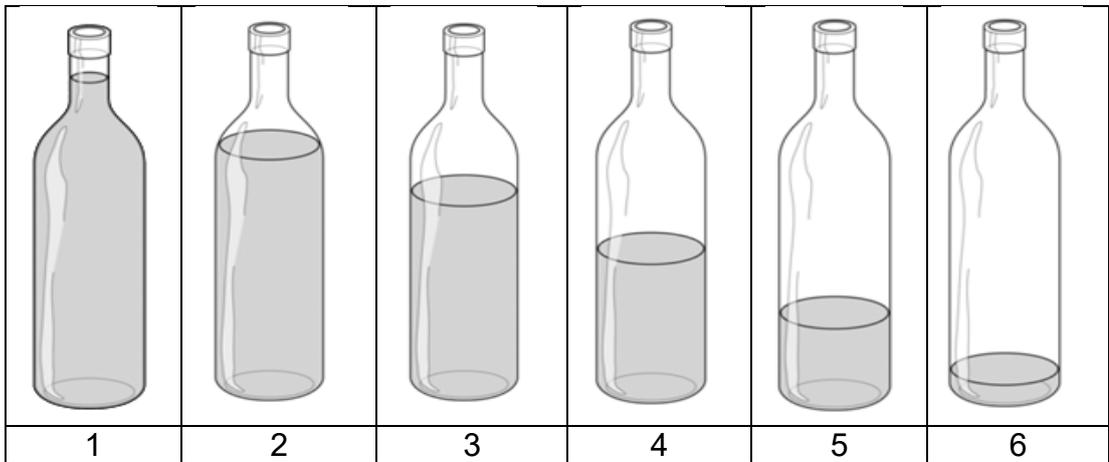
- A floats up gently because it is light.
- B is pushed into Space by the blowing wind.
- C jumps into Space using springs.
- D pushes upwards by releasing hot gases. (1)

Answer question 2.4 – 2.7 on the spaces provided.

2.4 What do we call musical instruments that produce sound by being blown? (1)

Answer: \_\_\_\_\_

2.5 The bottles below are arranged from the fullest to the least amount of water to make a water marimba.



2.5.1 If a pencil is used to tap each bottle at the top, which bottle will produce a low pitch?

Answer:

\_\_\_\_\_ (1)

2.5.2 Explain your answer in 2.5.1.

Answer:

\_\_\_\_\_  
\_\_\_\_\_ (1)

2.6 What is a rocket?

Answer:

\_\_\_\_\_  
\_\_\_\_\_ (1)

2.7 Imagine you are a scientist testing different balloon rockets.

Name TWO factors that might affect how far and how fast a rocket balloon travels.

Answer:

a) \_\_\_\_\_ (1)

b) \_\_\_\_\_ (1)

**TOTAL: [40]**

**End of test**