

SMARTWIZ

GRADE 5 NATURAL SCIENCE EXAM

MARKS: 50

MARKS	

TIME: 1 hour

SCHOOL _____

CLASS (e.g. 4A) _____

SURNAME _____

NAME _____

MYST PATHWORKS

Instructions for Students:

- > Read all instructions carefully before beginning the exam.
- > Write your name and student ID clearly on the answer sheet/booklet.
- > Answer all questions unless otherwise stated.
- > Show all your work/calculations where applicable.
- > Write clearly and legibly.
- > Use blue or black ink only. * Do not use correction fluid/tape.
- > No electronic devices (calculators, phones, etc.) are allowed unless explicitly permitted.
- > Raise your hand if you have any questions.
- > Do not talk to other students during the exam.
- > Any form of cheating will result in disqualification.

QUESTION 1: ENERGY AND CHANGE (10 MARKS)

1.1 What is a source of energy? Give two examples. (3)

1.2 Explain how energy is transferred in the following: (2)

- From the sun to plants: _____
- From a battery to a light bulb: _____

1.3 Give two reasons why we must save electricity. (2)

1.4 Which energy source is renewable: coal or solar? Give a reason. (2)

1.5 Name one example of stored energy. (1)

QUESTION 2: LIFE AND LIVING (10 MARKS)

2.1 What is photosynthesis? (2)

2.2 Write down the four basic needs of all living things. (2)

- _____
- _____
- _____
- _____

2.3 What is the difference between herbivores and carnivores? (2)

2.4 What do we call animals that eat both plants and animals? (1)

2.5 Give one reason why humans should protect ecosystems. (3)

QUESTION 3: PLANET EARTH AND BEYOND (10 MARKS)

3.1 Name the planet we live on. (1)

3.2 What causes day and night? (2)

3.3 Complete the table below by filling in the missing information. (4)

Planet	Order from the Sun	Surface
Mercury	1st	Rocky
Venus	2nd	
Earth		Rocky
Jupiter	5th	

3.4 What is gravity? (2)

3.5 Why does the moon seem to change shape? (1)

QUESTION 4: MATTER AND MATERIALS (10 MARKS)

4.1 What is matter? (1)

4.2 Name the three states of matter. (3)

- _____
- _____
- _____

4.3 Match the example to the correct state of matter. (3)

Example State of Matter

Water A. Gas

Air B. Solid

Ice cube C. Liquid

- Water: _____
- Air: _____
- Ice cube: _____

4.4 Which state of matter has no fixed shape or volume? (1)

4.5 Explain how heating affects solids. (2)

QUESTION 5: STRUCTURES AND STRENGTH (10 MARKS)

5.1 What is a frame structure? Give one example. (2)

Example: _____

5.2 Name two materials used to build strong structures. (2)

- _____
- _____

5.3 Why must bridges be strong and stable? (2)

5.4 Fill in the table below. (4)

Structure Type	Natural or Man-Made?	Example
Spider web		
Skyscraper		
Bird nest		
Soccer goal post		

TOTAL: 50 MARKS

GRADE 6 NATURAL SCIENCES MEMO

TERM ASSESSMENT

TOTAL: 50 MARKS

QUESTION 1: ENERGY AND CHANGE (10 MARKS)

1.1

A source of energy gives power to do work.

Examples: Sun, battery, wind. (3)

1.2

- Sun to plants: Through sunlight/solar energy. (1)
- Battery to light bulb: Electrical energy flows to make light. (1)

1.3

- To save money.
- To protect the environment. (2)

1.4

Solar is renewable because it comes from the sun and does not run out. (2)

1.5

Example: Food, fuel, battery. (1)

QUESTION 2: LIFE AND LIVING (10 MARKS)

2.1

Photosynthesis is the process where green plants make their own food using sunlight. (2)

2.2

- Food
- Water
- Air
- Shelter (2)

2.3

Herbivores eat plants; carnivores eat meat. (2)

2.4

Omnivores (1)

2.5

To keep nature balanced; it helps humans survive. (3)

QUESTION 3: PLANET EARTH AND BEYOND (10 MARKS)

3.1

Earth (1)

3.2

The Earth spins (rotates) on its axis, causing day and night. (2)

3.3 Table:

Planet	Order from the Sun	Surface
Mercury	1st	Rocky
Venus	2nd	Rocky (1)
Earth	3rd (1)	Rocky
Jupiter	5th	Gas (1)

(3)

3.4

Gravity is a force that pulls objects down or towards the centre of the Earth. (2)

3.5

Because of the moon's position and how the sunlight hits it. (1)

QUESTION 4: MATTER AND MATERIALS (10 MARKS)

4.1

Matter is anything that has mass and takes up space. (1)

4.2

- Solid
- Liquid
- Gas (3)

4.3 Matching:

- Water: C (1)
- Air: A (1)
- Ice cube: B (1)

4.4

Gas (1)

4.5

Heating causes solids to melt or expand (they change state). (2)

QUESTION 5: STRUCTURES AND STRENGTH (10 MARKS)

5.1

A frame structure is made of strong parts joined together.

Example: Jungle gym, bicycle frame. (2)

5.2

Examples: Steel, wood, bricks, concrete. (2)

5.3

So they can carry heavy loads and last long without falling. (2)

5.4 Table:

Structure	Type	Natural or Man-Made?	Example
Spider web		Natural (1)	Spider web (1)
Skyscraper		Man-made (1)	Building (1)
Bird nest		Natural (1)	Nest (1)
Soccer goal post		Man-made (1)	Goal post (1)

(4)

✓ **TOTAL: 50 MARKS**