

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: MATERIALS AND CHANGES (10 MARKS)

1.1 What is a physical change? Give one example. (2)

1.2 What is a chemical change? Give one example. (2)

1.3 State two ways to separate a mixture of sand and iron filings. (2)

- _____
- _____

1.4 Why is it important to recycle materials? (2)

1.5 What state of matter is steam? Explain. (2)

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QUESTION 2: ENERGY AND MOVEMENT (10 MARKS)

2.1 What is energy? (1)

2.2 Name three different types of energy. (3)

- _____
- _____
- _____

2.3 Give an example of a device that uses each type of energy: (3)

- Electrical energy: _____
- Heat energy: _____
- Sound energy: _____

2.4 How does energy help things to move? (2)

2.5 What is friction? (1)

QUESTION 3: LIFE AND ENVIRONMENT (10 MARKS)

3.1 What is a food chain? (2)

3.2 Study the food chain below and answer the questions. (3)

Grass → Grasshopper → Frog → Snake → Eagle

a) Name the producer: _____

b) Name one carnivore: _____

c) What would happen if the frogs disappeared?

3.3 What is the role of decomposers in nature? (2)

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3.4 Name two things that plants need to grow. (2)

- _____
- _____

QUESTION 4: EARTH AND SPACE (10 MARKS)

4.1 What causes the seasons of the year? (2)

4.2 What is the difference between rotation and revolution of the Earth? (2)



4.3 Match the planet with the correct description. Write only the letter. (3)

Column A (Planet)	Column B (Description)
a) Mars	A. Largest planet
b) Jupiter	B. Known as the Red Planet
c) Earth	C. Only planet with known life

- a) _____
b) _____
c) _____

4.4 Name two natural things found on Earth's surface. (2)

- _____
- _____

4.5 What is a crater and where is it found? (1)

QUESTION 5: SYSTEMS AND STRUCTURES (10 MARKS)



5.1 What is a load in a structure? (1)

5.2 What is the difference between a natural structure and a man-made structure? (2)

5.3 Complete the table below. (3)

Structure Type	Example
Frame Structure	
Solid Structure	
Shell Structure	

5.4 What can happen if a structure is not stable? (2)

5.5 Give two ways to make a bridge stronger. (2)

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- ---

TOTAL: 50 MARKS



GRADE 6 NATURAL SCIENCES MEMO

TERM ASSESSMENT

TOTAL: 50 MARKS

QUESTION 1: MATERIALS AND CHANGES (10 MARKS)

1.1

- A physical change is a change in the appearance or state of a substance without changing its chemical structure.
- Example: Ice melting to water. (2)

1.2

- A chemical change is when a new substance is formed and the change cannot be reversed easily.
- Example: Burning paper. (2)

1.3

- Use a magnet to remove the iron filings.
- Use a sieve or filter to separate sand. (2)

1.4

- Recycling reduces waste, saves natural resources, and protects the environment. (2)

1.5

- Steam is a gas because it has no fixed shape or volume and spreads out to fill space. (2)
-

QUESTION 2: ENERGY AND MOVEMENT (10 MARKS)

2.1

- Energy is the ability to do work or cause change. (1)

2.2

- Electrical energy
- Heat energy
- Sound energy (3)

2.3

- Electrical energy: Television
- Heat energy: Kettle
- Sound energy: Radio (3)

2.4

- Energy makes things move by applying force.
- For example, fuel energy makes cars move. (2)

2.5

- Friction is a force that slows down or stops movement when two surfaces rub together. (1)
-

QUESTION 3: LIFE AND ENVIRONMENT (10 MARKS)

3.1

- A food chain shows how energy is passed from one living thing to another. (2)

3.2

- a) Grass (1)
b) Snake or Eagle (1)
c) The number of snakes and eagles would decrease because their food is gone. (1)

3.3

- Decomposers break down dead plants and animals and return nutrients to the soil. (2)

3.4

- Sunlight
 - Water (2)
-

QUESTION 4: EARTH AND SPACE (10 MARKS)

4.1

- The seasons are caused by the Earth's tilt and its orbit (revolution) around the sun. (2)

4.2

- Rotation is Earth spinning on its axis (causes day and night).

- Revolution is Earth orbiting the sun (causes seasons). (2)

4.3 Matching:

- a) Mars – B
- b) Jupiter – A
- c) Earth – C (3)

4.4

- Mountains
- Rivers (2)

4.5

- A crater is a bowl-shaped hole on the surface of the moon or planet caused by impact. (1)

QUESTION 5: SYSTEMS AND STRUCTURES (10 MARKS)

5.1

- A load is the weight or force a structure must support. (1)

5.2

- Natural structures occur in nature (e.g., trees, nests).
- Man-made structures are built by humans (e.g., bridges, buildings). (2)

5.3 Table:

- Frame Structure: Jungle gym
- Solid Structure: Brick wall
- Shell Structure: Egg (3)

5.4

- It may collapse, break, or fall over, causing damage or injury. (2)

5.5

- Use stronger materials.
- Add supports like beams or arches. (2)

✓ **TOTAL: 50 MARKS**