

# SMARTWIZ

## GRADE 5 NATURAL SCIENCE EXAM

**MARKS: 50**

MARKS	
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**TIME: 1 hour**

**SCHOOL** \_\_\_\_\_

**CLASS (e.g. 4A)** \_\_\_\_\_

**SURNAME** \_\_\_\_\_

**NAME** \_\_\_\_\_

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**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: Life and Living (10 Marks)

1.1 What is a food chain? (2)

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1.2 Write down one example of a simple food chain with three living things. (3)

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1.3 What do we call animals that eat only plants? (1)

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1.4 Give two differences between a plant and an animal. (4)

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## QUESTION 2: Matter and Materials (10 Marks)



2.1 What happens to water when it is heated? (2)

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2.2 What happens to chocolate when it is placed in the sun? Explain. (2)

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2.3 Match the items to their correct properties. Write the correct property in the table. (6)

Item	Property (Hard, Soft, Rough, Smooth, Transparent, Waterproof)
Sponge	
Plastic bottle	
Window glass	
Sandpaper	
Metal spoon	
Raincoat	

### QUESTION 3: Energy and Change (10 Marks)

3.1 What is energy? (2)

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3.2 Name three appliances in the home that use electrical energy. (3)

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3.3 What happens when we use too much electricity? (2)

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3.4 List three ways we can save electricity at home. (3)

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### QUESTION 4: Planet Earth and Beyond (10 Marks)

4.1 What is the Earth mostly made up of? (1)

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4.2 Name two things that can pollute the land. (2)

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4.3 Why is it important to keep our environment clean? (2)

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4.4 Fill in the blanks: (5)

- The Earth moves around the \_\_\_\_\_.
- We live on the \_\_\_\_\_ of the Earth.
- The \_\_\_\_\_ gives us light at night.
- The sun rises in the \_\_\_\_\_.
- The \_\_\_\_\_ is the only planet we can live on.

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### **QUESTION 5: Processes and Properties of Materials (10 Marks)**

5.1 What does it mean to dissolve something? (2)

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5.2 Give an example of a substance that dissolves in water. (1)

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5.3 What do we call the clear liquid that forms when a solid dissolves in a liquid? (1)

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5.4 How would you separate sand from water? (2)

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5.5 Give two examples of irreversible changes. (2)

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5.6 Give two examples of reversible changes. (2)

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**TOTAL: 50 MARKS**

## MEMO: GRADE 5 NATURAL SCIENCE TEST

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### QUESTION 1: Life and Living (10 Marks)

#### 1.1

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

#### 1.2

Example:

- Grass → Zebra → Lion ✓
- Leaves → Caterpillar → Bird ✓  
(Any correct simple food chain with 3 living things)  
(3 marks)

#### 1.3

- Herbivores ✓  
(1 mark)

#### 1.4

- Plants make their own food; animals do not. ✓
- Plants stay in one place; animals can move. ✓
- Plants have leaves; animals have body parts like legs and arms. ✓
- Plants grow from seeds; animals are born from parents. ✓  
(Any 2 correct differences = 2 marks each)  
(4 marks)

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### QUESTION 2: Matter and Materials (10 Marks)

#### 2.1

- Water turns into steam / evaporates when heated. ✓  
(2 marks)

#### 2.2

- Chocolate melts into liquid when placed in the sun. ✓  
(2 marks)

## 2.3

Table answers:

Item	Property
Sponge	Soft ✓
Plastic bottle	Hard ✓
Window glass	Transparent ✓
Sandpaper	Rough ✓
Metal spoon	Smooth ✓
Raincoat	Waterproof ✓

(6 marks – 1 mark each)

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## QUESTION 3: Energy and Change (10 Marks)

### 3.1

- Energy is the power to do work or make things move. ✓  
(2 marks)

### 3.2

Examples:

- Fridge ✓
- Television ✓
- Kettle / Stove / Microwave ✓  
(Any 3 correct)  
(3 marks)

### 3.3

- It can cause load shedding / power cuts. ✓
- It wastes resources / harms the environment. ✓  
(2 marks)

### 3.4

- Turn off lights when not in use. ✓
  - Use energy-saving bulbs. ✓
  - Unplug chargers when not in use. ✓  
(Any 3 correct answers)  
(3 marks)
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#### **QUESTION 4: Planet Earth and Beyond (10 Marks)**

**4.1**

- **Land and water ✓  
(1 mark)**

**4.2**

- **Litter / Waste / Chemicals / Oil ✓ (Any 2)  
(2 marks)**

**4.3**

- **To keep animals and people safe ✓**
- **To keep the Earth healthy / stop pollution ✓  
(Any 2 correct)  
(2 marks)**

**4.4 Fill in the blanks:**

- **The Earth moves around the Sun. ✓**
  - **We live on the surface of the Earth. ✓**
  - **The moon gives us light at night. ✓**
  - **The sun rises in the east. ✓**
  - **The Earth is the only planet we can live on. ✓  
(5 marks – 1 mark each)**
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#### **QUESTION 5: Processes and Properties of Materials (10 Marks)**

**5.1**

- **To dissolve means to mix a solid into a liquid until it disappears. ✓  
(2 marks)**

**5.2**

- **Salt / Sugar ✓ (Any one that dissolves)  
(1 mark)**

**5.3**

- **A solution ✓  
(1 mark)**

**5.4**

- **Use filtration / pour through a filter / sieve ✓**  
**(2 marks)**

**5.5**

- **Burning paper ✓**
- **Cooking an egg ✓**  
**(Any 2 correct irreversible changes)**  
**(2 marks)**

**5.6**

- **Melting ice ✓**
- **Boiling water ✓**  
**(Any 2 correct reversible changes)**  
**(2 marks)**

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**TOTAL: 50 MARKS**

