WESTERING PRIMARY SCHOOL
NATURAL SCIENCES
CONTROLLED TEST
9 June 2025

50

NAME: _____
GRADE 7: _____
PARENT SIGNATURE: _____

EXAMINER: Mr V JONES
SUBJECT HEAD: MS S MITCHLEY
TOTAL MARKS: 50

INSTRUCTIONS:

This question paper consists of 5 pages including the cover page.
Answer ALL the questions in this question paper.
Write neatly and legibly.
Sketches to be drawn in pencil.

Question 1: Properties of Materials [13]

Read each question and circle the letter that shows the correct answer. (4)

1.1.1 Which one of these is NOT a physical property of materials?

A. Strength.
B. Flexibility.
C. Cost.
D. Conductivity.

1.1.2 Which of these statements is FALSE?

A. Matter takes up space and has mass.
B. Matter can be a liquid, solid or gas.
C. Flexible materials break easily.
D. Materials can be natural or man-made.

1.1.3 Which of these statements is TRUE?

A. All materials have the same boiling point.
B. Ice melts at around 0 C.
C. Water in Johannesburg and water in Cape Town boils at the same temperature.
D. The boiling point is the same as the melting point of a material.

1.1.4 Which one of these materials is a good conductor of heat?

A. Metal.
B. Wood.
C. Plastic.
D. Rubber.

1.2 What does the strength of different materials depend on? (1)

_____

_____

1.3 What state change occurs during evaporation? (1)

_____

_____

1.4 Name five physical properties of materials. (5)

_____

_____

_____

_____

_____

_____

1.5 Differentiate between electrical conduction and heat conduction. (1)

_____

_____

1.6 Define the term biodegradable. (1)

_____

_____

Question 2: Separating Mixtures **[19]**

2.1 Write the word that is being described in the sentence. Only write the answer. (5)

2.1.1 A mixture made up of a solid that is dissolved into a liquid.

_____

2.1.2 The property of a solid that does not dissolve into a liquid.

_____

2.1.3 Small, microscopic parts that make up matter.

_____

2.1.4 The change of state from gas to liquid.

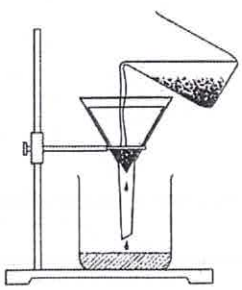
_____

2.1.5 A method of separating two liquids that have different boiling points.

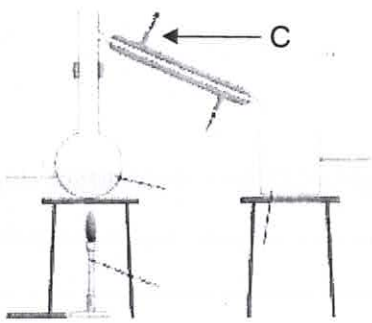
_____

2.2 Study the diagrams below and answer the questions.

A



B



2.2.1 Name the separation methods illustrated by A and B: (2)

A: _____

B: _____

2.2.2 Name the apparatus labelled C: (1)

C: _____

2.2.3 Give an example of a mixture for which apparatus B would be used for: (1)

_____

2.3 Name the separation method and explain how the following items can be separated.

2.3.1 Iron filings and flour mixed. (2)

_____

_____

2.3.2 Purifying sea water. (2)

_____

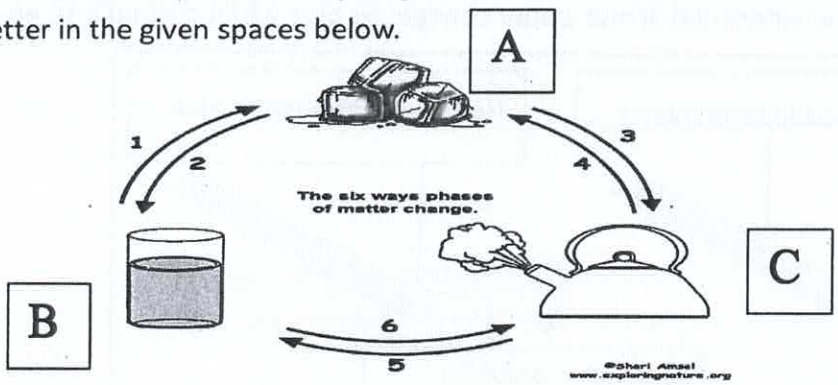
_____

2.3.3 Tea leaves and boiling water. (2)

_____

_____

2.4.1 Which state of matter is represented by diagram A, B and C below? Write your answer next to the letter in the given spaces below.



A _____ B _____ C _____ (3)

2.4.2 What is the process shown at **1** called when a liquid changes into a solid? $(\frac{1}{2})$

_____

2.4.3 What is the process shown at **5** called when a gas changes into a liquid? $(\frac{1}{2})$

_____

Question 3: Acids, Bases and Neutrals [9]

3.1 Look at the pictures below and identify the 4 primary tastes associated with each. (½ x 4 = 2)

			
_____	_____	_____	_____

3.2 Read the following statements and say whether each one is true or false: (5)

3.2.1 Indicators are dyes that change colour in acids and bases. _____.

3.2.2 Acids can be corrosive. _____.

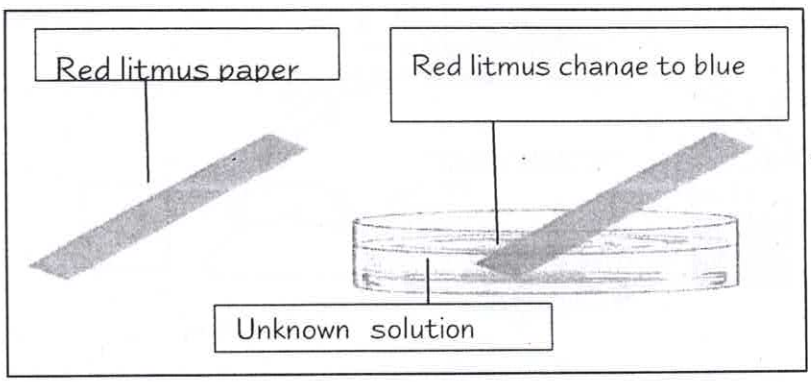
3.2.3 Citric acid is found in stomach juices. _____.

3.2.4 Bases are the opposite of acids and can never be dangerous. _____.

3.2.5 Bases can be caustic and can burn organic tissue. _____.

3.3 Red and blue litmus paper can be used to test whether a substance is an acid, a base or a neutral.

Study the diagram below where red litmus paper changes to blue when dipped into an unknown solution.



3.3.1 Study the illustration and decide if the unknown solution is an acid or a base. (1)

_____

3.3.2 Give ONE characteristic of an acid (1)

_____

Question 4: The Periodic Table [9]

Answer the following questions about the periodic table of elements.

4.1 Write down the symbol for each of the following elements:

a.) Titanium

_____

b.) Radium

_____

c.) Sodium

_____

d.) Cobalt

_____ (4)

4.2 Write down whether the following elements are *metals, semi-metals* or *non-metals:*

a.) Arsenic

_____

b.) Neon

_____

c.) Plutonium

_____

d.) Zirconium (4)

_____

4.3 True or false. All symbols' names match their abbreviations, for example Helium is He. Give a reason for your answer. (1)

_____