



**Western Cape
Government**
Education

Directorate: Curriculum GET

**Quality
learning
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GET Term 2 Take Home Package Natural Sciences and Technology

Grade 4



TAKE HOME PACK GET IP GRADE 4 NATURAL SCIENCES AND TECHNOLOGY TERM 2

QUESTION 1



Four options are provided as possible answers to the following questions. Each question has only ONE correct answer. Select the correct answer to the following and write down the corresponding letter of your choice. (A-D)

1.1 Clay is used to make ceramic items. Which one of the following products **IS NOT** a ceramic?



- A toilets
 - B baths
 - C bulbs
 - D tiles
- (1)

1.2 Which one is **NOT** an example of a raw material that we can use to make other useful materials?

- A sand
 - B clay
 - C wood
 - D paper
- (1)

1.3 Indicate which option **DOES NOT** describe matter in the gas state (phase).

- A moves in all directions
- B no definite shape
- C tend to spread out
- D flow and takes a definite shape



(1)

1.4 The process when water (liquid) is changed into water vapour (gas) when heated up.

- A precipitation
 - B solidification
 - C condensation
 - D evaporation
- (1)

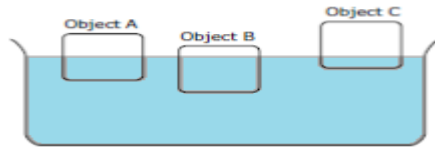
1.5 When you make soap bubbles, what is inside the bubbles?

- A Air
- B Soap
- C Water
- D Nothing



(1)

1.6 The diagram shows three solid objects of the same size floating in water.



Which object weighs the most?

- A Object A
- B Object B
- C Object C
- D They all weigh the same (1)

1.7 Which is an example of water condensing?

- A Sweat forming on your forehead after you do a lot of exercise.
- B A puddle disappearing on a hot summer afternoon.
- C Dew forming on plants during a cold night.
- D Ice cubes melting when you put them out in the sun. (1)

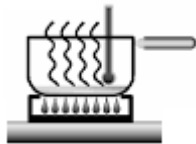
1.8 These things were buried in wet ground. Several years later they were dug up. Which one of these stayed the same?

- A An egg shell
- B A plastic cup
- C A paper plate
- D A orange peel (1)

1.9 In which of these activities a different result in the kind of material is formed?

- A A nail is left outside and it rusts
- B A glass is dropped and it shatters into small pieces
- C Pencil that is sharpened
- D A rubber band is stretched until it break (1)

1.10 What change of state is indicated in the picture below?



- A Liquid to gas
 - B Solid to gas
 - C Gas to liquid
 - D Solid to liquid (1)
- (10)**

QUESTION 2

Write down the **LETTER** of the correct statement in Column B that match the corresponding word in Column A. Write down **ONLY the LETTER** of your choice in Column C.

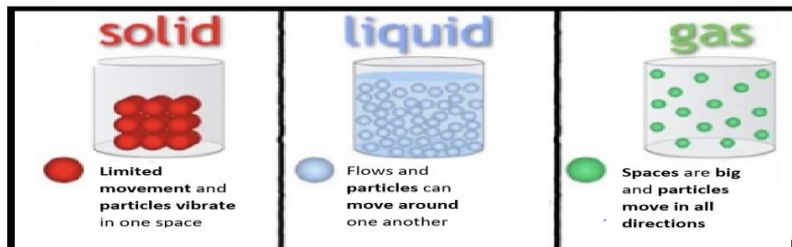
	COLUMN A	COLUMN B	COLUMN C
2.1	Shape	A. Particles that cannot move past each other and vibration present	2.1
2.2	Gas	B. Particles move past one another and move freely	2.2

2.3	Evaporation	C.	Particles can move past one another and can flow	2.3
2.4	Liquid	D.	The process where more heat is applied.	2.4
2.5	Solid	E.	When a gas touches a cold surface	2.5
		F.	Many different substances can change state	

(5)

QUESTION 3

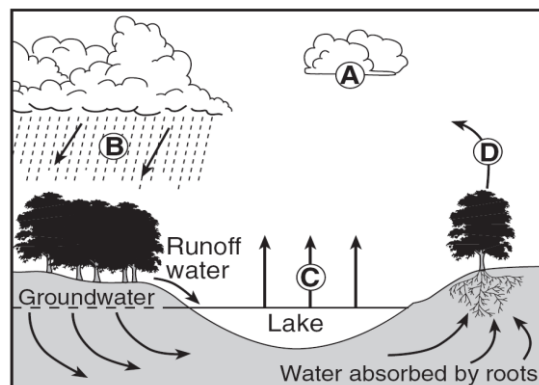
Read the information from the pictures below on the three states of water and answer the questions that follows:



- 3.1 Compare the arrangement of particles for a liquid and a solid as shown in the diagram above (2)
 - 3.2 Which of the three states have particles that can be compressed? (1)
 - 3.3 Explain why the shape of solid matter cannot change on its own (2)
 - 3.4 What determines the shape of a gas? (1)
 - 3.5 How can matter change from a liquid to a gas? (2)
 - 3.6 How can matter change from a liquid to a solid? (2)
- (10)**

QUESTION 4 - The Water Cycle

- 4.1 Study the picture below which illustrates the water cycle. Label all parts (A) to (D) which represent FOUR of the processes that are part of the water cycle.



A	
B	
C	
D	

(4)

QUESTION 5

Raw and manufactured materials

- 5.1 Explain the difference between a raw and a manufactured material. (2)
 5.2 Classify the following materials as raw or manufactured materials. Draw and complete in a table as indicated below.

Oil wool glass clay petrol plastic hide sand paper fleece coal leather nylon


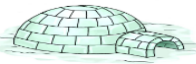
Raw material	Manufactured/processed material

(13)
(15)

Question 6

Study the two houses in the table below. .

- 6.1 Does the Igloo house and the Zulu house have fixed shape and definite space?
 Work it out by ticking off the columns for the Igloo house and the Zulu house in the table below.

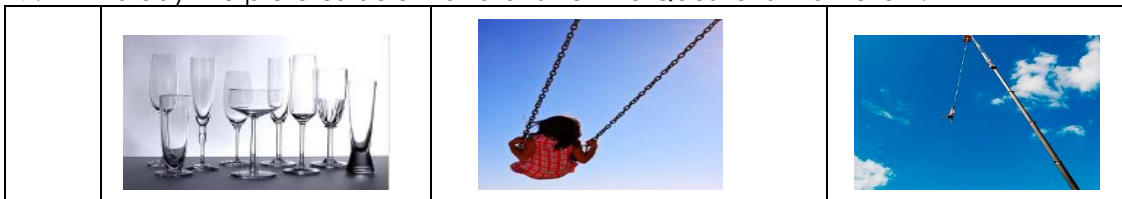
Two different houses	Has a fixed shape (Yes/No)	Has a definite space? (Yes/No)	Is a solid? (Yes/No)
 Zulu Hut (Clay house)			
 Igloo (Ice house)			

(3)
(1)
(1)
(2)
(1)
(1)
(8)

- 6.2 Which house was built in South Africa?
 6.3 Which house was built near the North Pole?
 6.4 Explain a reason for your answer in Question 6.3
 6.5 Which state of matter will each hut be in should they swop places?
 6.5.1 Complete: The Zulu hut will be in the _____ state if it was in the North Pole.
 6.5.2 Complete: The igloo would be in the _____ state if it was in South Africa.

Question 7

7.1 Study the pictures below and answer the Questions that follow.



7.1	Which property of liquids can be explained with this picture? (1)	7.2 Explain why this child can move through the air on this swing? (Hint: describe the properties of gas that make it possible for the swing to move.) (3)	7.3 The clouds above the bungee jumper seem to be rolling and flowing around each other as they are floating up above the bungee jumper. Answer the questions: a) Do clouds hold a fixed shape? b) Do clouds occupy a definite space? a) Decide whether these clouds act like liquids, solids or gases or a combination? (4)	(8)
TOTAL				60

Memorandum

QUESTION 1

1.1	C ✓	1.2	D ✓	1.3	D ✓	1.4	D ✓	1.5	A ✓	(10)
1.6	B ✓	1.7	C ✓	1.8	B ✓	1.9	A ✓	1.10	A ✓	

QUESTION 2

	2.1	F ✓	2.2	B ✓	2.3	D ✓	2.4	C ✓	2.5	A ✓	(5)
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QUESTION 3

- 3.1 Particles in a solid are packed close together ✓ in an orderly arrangement. (2)
The arrangement of particles in a liquid is more random. ✓
 - 3.2 Gas ✓ (1)
 - 3.3 The molecules are close together ✓ and do not move much. ✓ (2)
 - 3.4 A gas takes the shape of its container. ✓ (1)
 - 3.5 The liquid can be heated ✓ ✓ to turn into a gas. (2)
 - 3.6 The liquid can be cooled ✓ ✓ to turn into a solid. (2)
- (10)**

QUESTION 4 - The Water Cycle

4.1

A	Condensation ✓
B	Precipitation ✓
C	Evaporation ✓
D	Transpiration ✓

(4)

QUESTION 5

- 5.1 Raw material comes directly from nature (natural from plants and animals) ✓
Manufactured Material was processed or changed (made by humans). ✓ (2)

5.2	Raw material	Manufactured/processed material	
	Oil ✓	Glass ✓	
	Wool ✓	Plastic ✓	
	Clay ✓	Petrol ✓	(13)
	Hide ✓	Nylon ✓	
	Sand ✓	Paper ✓	
	Coal ✓	Fleece ✓	
		Leather ✓	

(15)

Question 6

6.1	Two different houses	Has a fixed shape (Yes/No)	Has a definite space? (Yes/No)	Is a solid? (Yes/No)	
	Zulu Hut (Clay house)	Yes	Yes	Yes ✓	
	Igloo (Ice house)	Yes	Yes	Yes ✓	(2)

6.2 Zulu hut/clay house ✓ (1)

6.3 Igloo (ice house) ✓ (1)

6.4 It is cold, ✓ freezing, below freezing ✓ and won't melt (2)

6.5 6.5.1 Zulu hut remains in solid phase ✓ (1)

6.5.2 Igloo house changes to liquid state ✓ (1)

(8)

Question 7

7.1 Takes the shape of the container ✓ (1)

7.2 Gases are mostly invisible ✓ and takes the shape of the container ✓ and spreads out / flows in space and can be moved to let solids swing move through ✓ (3)

7.3 a) No ✓ (1)

b) No ✓ (1)

c) Combination / like liquids and gases ✓ ✓ (2)

(8)

TOTAL 60