



education

Department:
Education
North West Provincial Government
REPUBLIC OF SOUTH AFRICA

PROVINCIAL ASSESSMENT

GRADE 6

NATURAL SCIENCES AND TECHNOLOGY

JUNE 2024

MARKING GUIDELINES

MARKS: 60



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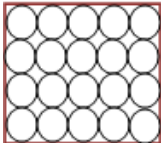
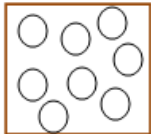
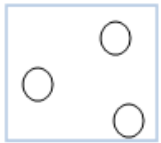
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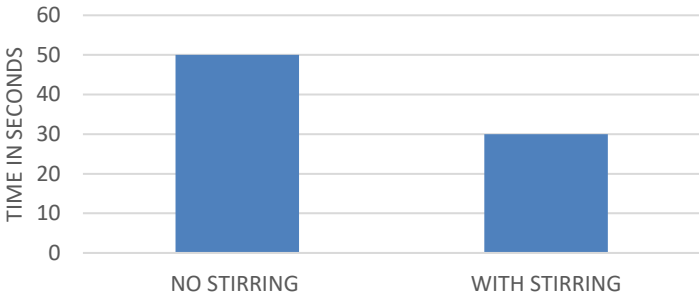
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QUESTION 1		ANSWER	
1.1	1.1.1. B ✓ 1.1.2. B ✓ 1.1.3. C ✓ 1.1.4. D ✓		4
1.2	1.2.1. Solution ✓ 1.2.2. Wetland ✓ 1.2.3. Filtering ✓ 1.2.4. Solvent ✓ 1.2.5. Pollution ✓		5
1.3	1.3.1. Both A & B ✓✓ 1.3.2. A Only ✓✓ 1.3.3. A Only ✓✓		6
		[15]	
QUESTION 2			
2.1	2.1.1. A  Solid ✓✓ B  Liquid ✓✓ C  Gas ✓✓ *2 Marks✓ for a correct drawing with particles correctly arranged. *No marks for word description of arrangement. *No 1 mark allocation		6

2.2	2.2.1	<table><tr><th>Mixture</th><th>Method of separation</th></tr><tr><td>1. Peanuts and beans</td><td>a) Hand sorting✓</td></tr><tr><td>2. Water and oil</td><td>b) Decanting ✓</td></tr><tr><td>3. Salt and water</td><td>c) evaporation/crystallization✓</td></tr></table>	Mixture	Method of separation	1. Peanuts and beans	a) Hand sorting✓	2. Water and oil	b) Decanting ✓	3. Salt and water	c) evaporation/crystallization✓	3
Mixture	Method of separation										
1. Peanuts and beans	a) Hand sorting✓										
2. Water and oil	b) Decanting ✓										
3. Salt and water	c) evaporation/crystallization✓										
	2.2.2	Salt and water.✓When heating the solution of saltwater the water will evaporate and leave the crystals of salt behind. ✓	2								
	2.2.3	Insoluble✓	1								
QUESTION 3			[12]								
3.1	3.1.1	Rubric Heading with two variables(stirring and dissolving)✓ y-axis & x-axis ✓ Drawing correct bar-graph, correct plotting of (no stirring and stirring) ✓✓ *1 mark if correct bar graph is drawn but incorrect plotting THE EFFECT OF STIRRING ON RATE OF DISSOLVING <table><thead><tr><th>Condition</th><th>Time in Seconds</th></tr></thead><tbody><tr><td>NO STIRRING</td><td>50</td></tr><tr><td>WITH STIRRING</td><td>30</td></tr></tbody></table>	Condition	Time in Seconds	NO STIRRING	50	WITH STIRRING	30	4		
Condition	Time in Seconds										
NO STIRRING	50										
WITH STIRRING	30										
	3.1.2	a) Temperature✓ b) Amount and grain size of sugar✓	2								
			[6]								

QUESTION 4			
4.1	4.1.1	To supply water to farms near the town of Brits✓	1
4.2	4.1.2	a) Water from mines✓ b) Waste from factories✓ c) Fertilisers✓ d) Human waste (plastics, sewers, cans, bottles) ✓ (any 3 relevant answers)	1 1 1
	4.1.3	From the farms nearby✓	1
	4.1.4	The growth of algae plant contaminates the water so fish and frogs die.✓✓	2
	4.2.1	a) They hold back water and release it slowly throughout the year. ✓✓ b) They are a habitat for plants and animals and provide them with food and a place to breed. ✓✓ c) They filter water and ensure that its clean. ✓✓ (any 2 relevant answer)	2 2
	4.2.2	a) Frogs ✓ b) Fish✓ c) Crocodile✓ d) birds✓ (any 2 relevant answers)	2 [13]
QUESTION 5			
5.1	5.1.1	To alert or warn people that the area has water that is not safe for human to consume. ✓✓	2
	5.1.2	a) Cholera✓ b) Diarrhea✓ c) Typhoid✓ d) Polio✓ (any 2 relevant answers)	2
	5.2.1	b) Filtering removes very tiny particles from the water c) Chlorination kills any germs left in the water	2 2
5.2	5.2.2	The process of sieving only removes large materials, it does not kill germs. Water can still be contaminated even after sieving. ✓✓	2
5.3	5.3.1	a) Put a funnel with a filter paper or cloth in an empty clean container✓ b) Pour the water in the funnel to filter smaller bits and twigs✓ c) Take the filtered water in the container and boil it for 15 minutes✓ d) Allow the water to cool before use. ✓ (any 4 relevant answers)	4 [14]
TOTAL SECTION:			45
GRAND TOTAL:			60