



# education

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Department:  
Education  
North West Provincial Government  
**REPUBLIC OF SOUTH AFRICA**

## PROVINCIAL ASSESSMENT

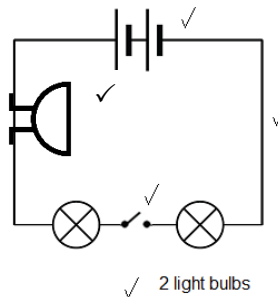
**GRADE 6**

**NATURAL SCIENCES AND TECHNOLOGY  
NOVEMBER 2024  
MARKING GUIDELINES**

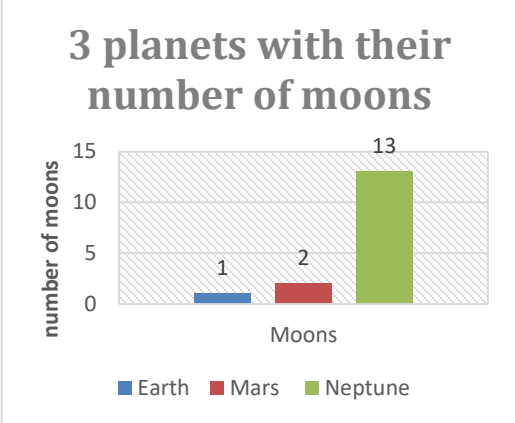
**MARKS: 60**

**These marking guidelines consist of 5 pages.**

<b>SECTION A</b>			
<b>QUESTION 1</b>			
		<b>ANSWER</b>	
1.1	1.1.1 C ✓ 1.1.2 A ✓ 1.1.3 D ✓ 1.1.4 B ✓ 1.1.5 D ✓ 1.1.6 D ✓ 1.1.7 B ✓		7
1.2	1.2.1 Nation grid ✓ 1.2.2 Fossil fuel ✓ 1.2.3 Battery ✓ 1.2.4 Curiosity Rover ✓ 1.2.5 Crater ✓		5
1.3	1.3.1 B ✓✓ 1.3.2 C ✓✓ 1.3.3 A ✓✓ 1.3.4 F ✓✓		8
		<b>TOTAL SECTION A: 20</b>	

SECTION B			
QUESTION 2			
2.1	2.1.1	a) No ✓ b) No ✓ c) Yes ✓	3
	2.1.2	Circuit A and B are incomplete. ✓ (A with a gap between negative terminal and the bulb. B has only one connective wire from positive terminal.) C is a complete circuit that allows the flow of electricity. ✓ <b>*(mark any relevant explanations)</b>	2
	2.1.3	Light ✓ and heat ✓	2
2.2	2.2.1	 <p>✓ 2 light bulbs</p> <p><b>*(No mark for 1 cell or 1 bulb drawn)</b></p>	5
2.3	2.3.1	a) Coin ✓ b) Rubber ✓	2
	2.3.2	Which materials will act as conductors or insulators between the 6 different materials? ✓✓	2
	2.2.3	3 materials are conductors and 3 are insulators. ✓✓ Reject ✓ Hypothesis (Not all materials acted as insulators)	3
			<b>[19]</b>

<b>QUESTION 3</b>			
3.1	3.1.1	Electric stoves and geysers are high-power appliances that require more energy to generate heat. ✓ Appliances that are used for heating use more electrical energy and will therefore cost more. ✓	2
	3.1.2	A. Use a gas stove. ✓ B. Use a solar geyser. ✓	2
	3.1.3	Solar energy ✓	1
			<b>[5]</b>
		<b>TOTAL SECTION B:</b>	<b>24</b>

<b>SECTION C</b>											
<b>QUESTION 4</b>											
4.1	4.1.1	a) Jupiter      b) Saturn	2								
	4.1.2	Earth	1								
	4.1.3	<div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;"> <p><b>3 planets with their number of moons</b></p>  <table border="1"> <caption>Data from Bar Chart</caption> <thead> <tr> <th>Planet</th> <th>Number of Moons</th> </tr> </thead> <tbody> <tr> <td>Earth</td> <td>1</td> </tr> <tr> <td>Mars</td> <td>2</td> </tr> <tr> <td>Neptune</td> <td>13</td> </tr> </tbody> </table> </div> <div style="border: 2px solid black; padding: 5px; width: 250px;"> <p><b>Guide to mark graph</b>                      Heading with planets and number of moons ✓                      y-axis &amp; x-axis ✓                      Drawing of each bar correct. ✓✓✓                      *No mark if bars are incorrectly plotted</p> </div> </div>	Planet	Number of Moons	Earth	1	Mars	2	Neptune	13	5
Planet	Number of Moons										
Earth	1										
Mars	2										
Neptune	13										
<b>QUESTION 5</b>											
5.1	5.1.1	Southern African Large Telescope or (SALT)	1								
	5.1.2	2025✓ – 20✓ =2005✓ * (mark any mathematical method that arrives to the correct answer)	3								
	5.1.3	Lenses✓ and big mirror✓	2								
5.2		Earth’s movement in its own orbit around the Sun✓ and Moon also revolves in orbit around the Earth.✓	2								
<b>TOTAL SECTION C:</b>			<b>16</b>								
<b>GRAND TOTAL:</b>			<b>60</b>								