



GAUTENG PROVINCE
EDUCATION
REPUBLIC OF SOUTH AFRICA

PROVINCIAL EXAMINATION

NOVEMBER 2022

GRADE 6

MARKING GUIDELINES

NATURAL SCIENCES AND TECHNOLOGY
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6 pages

SECTION A		
QUESTION 1: MULTIPLE-CHOICE QUESTIONS		MARKS
1.1	A ✓	1
1.2	D ✓	1
1.3	C ✓	1
1.4	C ✓	1
1.5	D ✓	1
1.6	D ✓	1
1.7	A ✓	1
		[7]
QUESTION 2: GIVE A TERM		
2.1	Rotation ✓	1
2.2	Revolution ✓	1
2.3	24 hours ✓	1
2.4	Day and night ✓	1
2.5	365 ¼ days ✓	1
		[5]
QUESTION 3: TRUE OR FALSE		
3.1	False ✓	1
3.2	False ✓	1
3.3	True ✓	1
3.4	True ✓	1
3.5	True ✓	1
		[5]
QUESTION 4: MATCHING ITEMS		
4.1	C ✓	1
4.2	E ✓	1
4.3	B ✓	1
4.4	A ✓	1
4.5	D ✓	1
		[5]
QUESTION 5: LABELLING STRUCTURES		
5.1	5.1.1 Mercury ✓	1
	5.1.2 Earth ✓	1
	5.1.3 Jupiter ✓	1
	5.1.4 Uranus ✓	1
	5.1.5 Neptune ✓	1
5.2	A Bulb/Light bulb ✓	1
	B Open switch/Switch ✓	1
	C Battery/2 cells ✓	1
		[8]
TOTAL SECTION A:		30

SECTION B

QUESTION 6: SEQUENCING

MARKS

6.1	6.1.1	Investigate	✓	1
	6.1.2	Design	✓	1
	6.1.3	Make	✓	1
	6.1.4	Evaluate	✓	1
	6.1.5	Communicate	✓	1

6.2

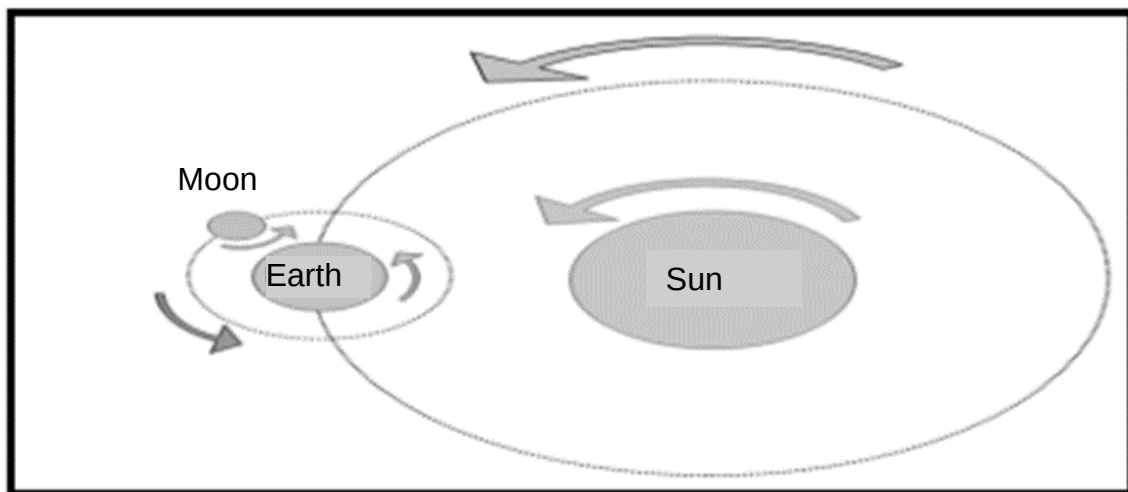
Electrical energy
from mains ✓Electrical charges
move through circuit
and change to heat ✓Heat from the heater
warms the room ✓

3

[8]

QUESTION 7: DRAWING AND LABELLING

MARKS



- 2 marks for the arrows that show the **Moon** orbiting the **Earth**
- 2 marks for the arrows that show the **Earth** orbiting the **Sun**
- The size of the **Moon** should be smaller than the size of the **Earth** and the size of the **Earth** should be smaller than the size of the **Sun**.

4

[4]

QUESTION 8: RENEWABLE AND NON-RENEWABLE ENERGY				MARKS
8.1	8.1.1	Water	✓	1
	8.1.2	Renewable	✓	1
	8.1.3	Non-renewable	✓	1
8.2 Any suitable answer. <i>Below is a list of suitable answers that may be considered.</i> Learners only need to provide any ONE answer/sentence under the “advantage” and “disadvantage” columns, to complete the table.				
Energy Source		Advantage	Disadvantage	
Wind Turbines		Is a renewable source of energy ✓ Is a clean source of energy ✓ Low operating costs to generate electricity ✓	Noise pollution ✓ Limited locations with suitable wind speeds ✓ Unpredictable weather conditions ✓	
Solar Energy		Is a renewable source of energy ✓ Low/Very little maintenance ✓ Reduces electricity bills ✓	Costly/Expensive to install ✓ Unpredictable weather conditions ✓	
Hydroelectricity		Is a renewable source of energy ✓ Safe for environment/Pollution free ✓ Reliable/Constant energy source ✓	Costly/Expensive to build ✓ Is not always safe May cause droughts or floods ✓ Can displace people/communities ✓	
				6
				[9]
TOTAL SECTION B:				21
SECTION C				
QUESTION 9: CONDUCTORS AND INSULATORS				
9.1	9.1.1	Plastic is an insulator and it will protect you from getting an electric shock/electrocuted. ✓		1
	9.1.2	To work safely with electricity so that you do not get an electrical shock/electrocuted. ✓		1
	9.1.3	<i>Any TWO from the list below.</i> - Boil only enough water you need to use in a kettle./Do not boil a full kettle unnecessarily. - Use energy-saving light bulbs. ✓ - Do not leave lights or electrical appliances on when not in use. ✓ - Use big pots on big plates and small pots on small plates. ✓ - Do not open the door of the fridge unnecessarily. ✓ - Insulate the ceiling of your home. ✓ - Install/Use solar power for geysers. ✓		2

9.2	9.2.1	Illegal connections are dangerous because they can cause fires./People can die from an electric shock./It can kill or injure people. ✓ Any other suitable answer.	1
	9.2.2	People are poor and cannot afford electricity ✓ Any other suitable answer.	1
			[6]

QUESTION 10: TELESCOPES AND THE SOLAR SYSTEM		
10.1	A telescope is an instrument that magnifies ✓ distant objects and makes them seem closer. ✓	2
10.2	The planets and other celestial bodies in our solar system revolve (orbit) around the sun. ✓	1
		[3]
TOTAL SECTION C:		9
Total:		60

NATURAL SCIENCE AND TECHNOLOGY

ASSESSMENT FRAMEWORK

GRADE 6 NOVEMBER EXAM – 2022

DURATION: 1½ hours

SECTION A	MARKS
QUESTION 1: MULTIPLE-CHOICE	7
QUESTION 2: GIVE A TERM	5
QUESTION 3: TRUE OR FALSE	5
QUESTION 4: MATCHING ITEMS	5
QUESTION 5: LABELLING STRUCTURES	8
SUBTOTAL	[30]
SECTION B	MARKS
QUESTION 6: SEQUENCING	8
QUESTION 7: DRAWING, LABELLING AND ILLUSTRATION	4
QUESTION 8: IDENTIFY, COMPARE	9
SUBTOTAL	[21]
SECTION C	MARKS
QUESTION 9: DISCUSS, SUGGEST A REASON, CASE STUDY/ INVESTIGATION	6
QUESTION 10: DISCUSS, SUGGEST A REASON	3
SUBTOTAL	[9]
TOTAL:	60

CONTENT DISTRIBUTION AS OUTLINED IN CIRCULAR 2 Of 2022, ANNEXURE B

QUESTION NUMBER	TERM 3: CONTENT	MARK ALLOCATION	TERM 4: CONTENT	MARK ALLOCATION
1	Electricity	5	Systems for looking into space	2
2			Movement of the Earth	5
3	Energy and Change	5		
4	Conductors and Insulators	5		
5	Circuit Diagram	3	Solar System	5
6	Input, Process, Output	3	Moon Rover	5
7			Movement of the Earth	4
8	Energy and Change	9		
9	Conductors & Insulators	6		
10			Systems for looking into space	3
	Total for Term 3 Content	36	Total for Term 4 Content	24