

Grade 6 Natural Sciences & Technology

E-Interactive Worksheet: Systems to Explore the Moon

Total: 15 Marks

Scenario 1: The Moon Rover (4 Marks)

Scientists send a rover to the Moon to collect rock samples. The rover has:

- solar panels for energy,
- wheels for movement,
- cameras to take pictures,
- and a robotic arm to pick up rocks.

Questions

1.1

What is the main function of the solar panels? (1 mark)

- A. To help the rover fly
- B. To provide energy for the rover
- C. To collect rocks

1.2

Name TWO parts of the rover that help it collect information. (2 marks)

1.3

Why do you think the rover needs wheels? (1 mark)

Scenario 2: Astronauts on the Moon (4 Marks)

Astronauts cannot breathe on the Moon because there is no air. They wear special space suits with oxygen tanks and communication systems.

Questions

2.1

Why do astronauts need oxygen tanks on the Moon? **(1 mark)**

2.2

Match the system to its function: **(2 marks)**

System	Function
A. Communication system	1. Helps astronauts breathe
B. Oxygen system	2. Sends messages to Earth

Write the correct answers:

A = _____

B = _____

2.3

What might happen if the communication system stops working? **(1 mark)**

Scenario 3: Launching a Rocket (4 Marks)

A rocket is launched from Earth to carry astronauts and supplies to the Moon.

The rocket uses:

- fuel tanks,
- engines,
- a navigation system,
- and computers.

Questions

3.1

Which system helps guide the rocket in the correct direction? **(1 mark)**

3.2

Why are engines important in a rocket? **(1 mark)**

3.3

Circle the correct answer: **(1 mark)**

A rocket system is successful when:

- a) All parts work together
- b) Only the engines work
- c) The computers are removed

3.4

Give ONE example of supplies astronauts may need on the Moon. **(1 mark)**

Scenario 4: Designing a Moon Base (3 Marks)

Learners are asked to design a small Moon base where astronauts can live safely.

The base must include:

- water storage,
- sleeping areas,
- electricity,
- and protection from heat and cold.

Questions

4.1

Why is electricity important in a Moon base? **(1 mark)**

4.2

Name One-way astronauts could protect themselves from extreme temperatures on the Moon. **(1 mark)**

4.3

Explain why different systems in the Moon base must work together. **(1 mark)**
