Answers

Theme 8: Why Is Technology Important?
Lesson-14 The Earth's Satellite

Main Coursebook

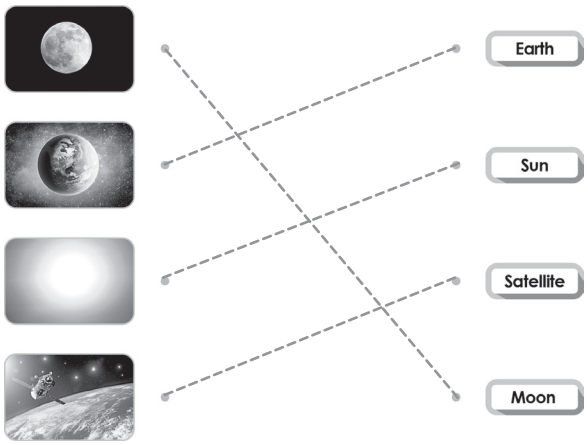
Re-KAP

Kinaesthetic:

Accept all relevant responses

Auditory: The two Indian satellites are Aryabhata and APPLE.

Pictorial



Interacting better:

Accept all relevant responses

Understanding better: (Page 106)

1. Yes 2. No

Understanding better: (Page 108)

1. True 2. False

Learning better:

A. 1. b 2. a 3. b 4. c 5. a

B. 1. False 2. True 3. True
4. False 5. False

C. 1. The surface of the Moon is rough due to big, round and hollow structures called craters.
2. There is no air and water on the Moon. So, no life exists there.
3. Rakesh Sharma

D. 1. **Lunar eclipse**

In a lunar eclipse, the Earth casts a shadow on the Moon, as the Earth comes in between the Sun and the Moon. In a partial lunar eclipse, the Moon is only partly hidden by the dark shadow of the Earth. In a total lunar eclipse, the Moon is completely in the dark shadow of the Earth. A lunar eclipse occurs at night.

Solar eclipse

In a solar eclipse, the Moon casts a shadow on the Earth as the Moon comes between the Sun and the Earth. In a partial solar eclipse, the Sun is only partly hidden by the dark shadow of the Moon. In a total solar eclipse, the Sun is completely in the dark shadow of the Moon. A solar eclipse occurs during the day.

2. Artificial satellites are human-made objects. In 1957, the first human-made satellite, Sputnik 1, was launched in to space by Russia (then, USSR). Aryabhata was the first Indian satellite launched in 1975. Some other Indian satellites are APPLE, INSAT-1B, INSAT-2A, INSAT-2B, Oceansat and IRNSS-1A.

Uses

Artificial satellites were initially designed for scientific research. Now these satellites are also used for communication, weather forecasts, navigation, observation, space exploration, etc.

Creating better:

Accept all relevant responses

Thinking better:

If the Moon were closer, the tides would be stronger, with very high waves. If the Moon were farther, the tides would be weaker. Tides help sea animals and keep the beaches and oceans clean.

Choosing better:

2. They should wear eclipse glasses and then look at the Sun.

Students' Worksheets

Worksheet 1

A. 1. Moon 2. 3,84,400 3. Moon
4. satellite 5. closer

B. 1. False 2. True 3. True
4. False 5. False

C. 1. SUN 2. MOON 3. EARTH
4. PLANET 5. SATELLITE

Worksheet 2

A. 1. water 2. Moon 3. gravity
4. Sun 5. cold

B. 1. NEW MOON
2. FULL MOON
3. WAXING GIBBOUS
4. WANING GIBBOUS
5. WAXING CRESCENT

C. 1. False 2. True 3. False
4. True 5. True

Book of Holistic Teaching

Developing better:

A. **English**

1. **In:** The Moon revolves around the Earth in its orbit.
2. **Under:** Under the Moon's glow, the ocean tides rise and fall.

B. **Maths**

Distance between the Sun and Moon is 149,615,600 km.

C. **Social Studies**

Three factors that influence the climate are as follows:

1. **Distance from the Equator:** The Sun's rays fall on the surface of the Earth. Near the equator, these rays are direct and are spread over a small area. As we move away from the equator and towards the poles, the rays become weak. As a result, places near the equator such as Indonesia, Kenya and Brazil, are hotter than those which are located away from the equator.
2. **Height above the sea level (altitude):** Hill stations, such as Shimla, Nainital, Ooty and Darjeeling, remain cool even in summer. Places located at higher altitudes are colder than those at lower altitudes even if they are situated on the same latitude.
3. **Direction of winds:** Winds blowing from hot regions increase the temperature of a place, while those blowing from cold regions decrease the temperature. So, as a result, Delhi is hot in summer due to the dry, hot winds that blow from Rajasthan. In winter, cold winds from the Himalayas make northern India very cold.

Book of Project Ideas

Making better:

Accept all relevant responses.