

Answers

Theme 5: How Does the Universe Work? Lesson-8: Earth and Its Neighbours

Main Coursebook

Kinaesthetic:

Accept all relevant responses.

Auditory:

1. Mars is much colder than Earth. Also, Earth is at the right distance from the Sun, making it warm enough for water to stay liquid and for life to thrive.
2. Earth has one moon.

Pictorial

1. Solar
2. Lunar

Interacting better:

Accept all relevant responses.

Understanding better (Page 56)

1. Mercury
2. Jupiter

Understanding better (Page 57)

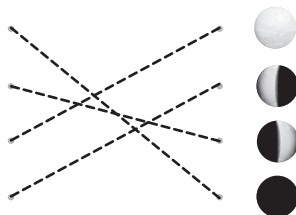
1. Moon
2. First quarter moon

Learning better

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

B.

1. New Moon
2. First Quarter Moon
3. Full Moon
4. Third Quarter Moon



- C. 1. Eight 2. Astronomer
3. The people who study heavenly bodies are called astronomers.
- D. 1. The Sun and the planets that move around it form the solar system.

Mercury: Mercury is the smallest planet in our solar system. It is the closest planet to the Sun. Mercury has no Moons.

Venus: Venus is the second planet from the Sun. It is almost as big as the Earth. Venus is the hottest planet in our solar system. Venus has no Moons. The average surface temperature of Venus is 464 degree celsius.

Earth: The Earth is the third planet from the Sun. It is the only planet where life exists. The Earth has one Moon.

Mars: Mars is the fourth planet from the Sun. It has two Moons. It is called the red planet because its surface is covered with red dust.

Jupiter: Jupiter is the fifth planet from the Sun. It is the largest planet in the solar system. It has 95 Moons moving around it.

Saturn: Saturn is the sixth planet from the Sun. It is the second largest planet in the solar system. It is surrounded by beautiful rings. It has 146 Moons.

Uranus: Uranus is the seventh planet from the Sun. It is the third largest planet in our solar system. It is a very cold planet and has 28 Moons. Uranus has faint rings.

Neptune: Neptune is the farthest planet from the Sun. It is also a cold planet and is blue in colour. It has 16 Moons.

2. The Moon revolves around the Earth. The Moon is the natural satellite of the Earth. The Moon takes 27 days and 8 hours to revolve around the Earth. During this motion, the sunlight falls on the different parts of the Moon, resulting in its various shapes. These are called phases of the Moon.

Creating better:

Accept all relevant responses.

Thinking better:

If Earth were closer to the Sun, life on Earth would be very different and it might be harder for humans, animals and plants to survive. Our life must have been different in ways shared below:

- a. Much hotter temperatures: The closer we are to the Sun, the hotter the Earth would be. This would make many places too hot to live in. Also, we might not have enough water and it would be difficult to grow food.
- b. More dangerous weather: With more heat, the weather might become more extreme. There could be bigger storms, heat waves and droughts (times with no rain). This would make life very tough for people and animals.
- c. Changes to plants and animals: Many plants and animals need a certain temperature to survive. If Earth were closer to the Sun, they might not be able to live because it would be too hot.

Some animals might not find enough food and plants might not be able to grow.

- d. Shorter days: If Earth were closer to the Sun, it might also affect how long a day lasts. Days could be shorter or longer, which could mess up how plants grow or how animals sleep.

Choosing better:

2. He should always complete his work, without anyone telling him to do so.

Students' Worksheets

Worksheet 1

- A. 1. planets 2. planet 3. Sun
4. Sun 5. light; heat
- B. 1. False 2. False 3. True
4. True 5. False
- C. 1. → d 2. → e 3. → a
4. → c 5. → b

Worksheet 2

- A. 1. eight 2. Earth 3. third
4. Mars 5. sixth
- B. 1. Mercury 2. Venus 3. Jupiter
4. Saturn 5. Uranus
- C. 1. Mercury 2. Venus 3. Earth
4. Jupiter 5. Neptune

Worksheet 3

- A. 1. The Sun is the largest heavenly body in the solar system.
2. The Sun contains hot gases and gives out heat and light.
3. In our Solar system, there are eight planets.
4. Mars is the fourth planet from the Sun.
5. Uranus has 27 moons.
- B. 1. I 2. I 3. C 4. C 5. I
- C. 1. False 2. False 3. True
4. True 5. True

Worksheet 4

- A. 3, 4.
- B. 1. The Sun and the planets that move around it form the solar system.
2. Planets are large bodies that move around a star.
3. The Sun is the largest heavenly body in the solar system.
4. The Moon revolves around the Earth.
5. Stars are huge balls of fire and light.
- C. **URANUS:** Seventh planet from the Sun; Cold planet; 27 Moons
MARS: Fourth planet from the Sun; Red planet; 2 Moons
SATURN: Sixth planet from the Sun; Second largest planet; 62 Moons

Book of Holistic Teaching

Developing better

- A. **English:**
Rina reads in a book that the Sun is a star in the solar system. It excites her to know that our Sun is not alone in space, instead it is with eight planets. She also reads that all the eight planets move around the Sun in a fixed path.
- B. **Maths:** 8, 16, 24, 32
- C. **Social Studies:** INSAT-1B, APPLE

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Accept all relevant responses.