The Sun and the Earth

The Sun gives us light and heat. It helps us see during the day. When the Sun comes up, it is morning. When the Sun goes down, it is night.

The Earth goes around the Sun. It takes one year to go all the way around. The Earth also spins like a top. It takes one day to spin all the way around.

When our part of Earth faces the Sun, we have daytime. When it turns away, it is nighttime.

Seasons and Shadows

Sometimes it is hot, and sometimes it is cold. This is because of how the Earth tilts. When our part of Earth points toward the Sun, we get more light and feel warmer. That is summer! When we tilt away, it is colder. That is winter.

You can see your shadow when you stand in the Sun. Your shadow moves and changes during the day.

Eclipses

Sometimes the Moon blocks the Sun. That is called a solar eclipse. It can get dark in the day!

Sometimes the Earth blocks the Sun's light from reaching the Moon. That is a lunar eclipse.

Even if there is no eclipse, you can look at shadows and light every day. Try it!

✅ 1. True or False

Statement: *The Earth stays still and the Sun moves around it.*
Correct Answer: False

- **Why it's correct:** The Earth **moves around the Sun**, not the other way around. The Earth **spins** to create day and night, and it **orbits** the Sun once each year.
- **Why the statement is false:** This reflects an old belief before scientists understood how our solar system works.

📘 2. Multiple Choice

Question: *What does the Sun give us?*
Correct Answer: C) Light and heat

- **Why it's correct:** The Sun provides **light**, which helps us see, and **heat**, which keeps Earth warm.
- **A) Rain and snow** – Incorrect: These are caused by weather and water cycles, not directly by the Sun.
- **B) Wind and clouds** – Incorrect: Wind is partly influenced by the Sun's heat, but clouds and wind aren't something the Sun "gives" us directly.
- **D) Trees and plants** – Incorrect: While sunlight helps plants grow, the Sun doesn't *give* us plants directly.

🌎 3. Multiple Choice

Question: *Why do we have day and night?*
Correct Answer: B) The Earth spins around

- **Why it's correct:** The Earth **rotates** (spins) once every 24 hours. As it turns, one side faces the Sun (day), and the other is in shadow (night).
- **A) The Moon covers the Sun** – Incorrect: That's a solar eclipse, not a daily event.
- **C) The Sun turns off at night** – Incorrect: The Sun doesn't turn off; Earth just turns away from it.
- **D) The Earth moves closer to the Sun** – Incorrect: Distance from the Sun affects seasons, not day and night.

❄️ 4. Multiple Choice

Question: *What causes the seasons to change?*
Correct Answer: D) The Earth is tilted

- **Why it's correct:** Earth is tilted at 23.5 degrees, which changes how much sunlight different parts of the Earth get during the year, creating **seasons**.
- **A) The Earth moves closer to the Moon** – Incorrect: The Moon doesn't affect seasons.
- **B) The Moon spins faster** – Incorrect: The Moon's speed isn't related to Earth's seasons.
- **C) The Sun gets hotter** – Incorrect: The Sun's temperature doesn't change enough to cause seasons.

🌑 5. Multiple Choice

Question: *What happens during a solar eclipse?*
Correct Answer: C) The Moon blocks the Sun

- **Why it's correct:** A **solar eclipse** occurs when the **Moon moves between the Earth and the Sun**, blocking sunlight for a short time.
- **A) The Earth blocks the Moon** – Incorrect: That's a **lunar eclipse**, not a solar one.
- **B) The Sun moves away** – Incorrect: The Sun doesn't move away; the Moon blocks our view.
- **D) The stars come out** – Incorrect: It may get dark, but that's not what defines a solar eclipse.

✏️ Short Answer

Question: *What is one thing you can see change during the day when the Sun is shining?*
Example Answer: *My shadow changes size and moves.*

- **Why it's correct:** As the Sun moves across the sky, the angle of sunlight changes. This makes **shadows move and change size** throughout the day.