**Questions**

Phases of the Moon:

Q: What is are the phases of the Moon caused by?

1. **Sunlight reflecting at different angles on the surface of the Moon as seen from Earth.**
2. The effect of Earth’s shadow covering specific parts of the Moon.
3. The rotation of the Moon about its axis.
4. Due to the Earth’s rotation.

Moon and Tidal Effects:

Q: Why does Ocean water rise up and down periodically on Earth?

1. **Due to the gravitational attraction of the Moon as Earth rotates.**
2. Due to the gravitational attraction of the Sun.
3. Due to the centrifugal force acting outwards as the Earth rotates.
4. Due to earthquakes occurring beneath the ocean floor.

Barycenter

Q: Approximately how far beneath our feet does the barycenter lie?

1. **1700 km**
2. 4671 km
3. 2971 km
4. 6371 km

Solar and Lunar Eclipse

Q: What is the difference between a solar and lunar eclipse?

1. A solar eclipse occurs when the Earth, Moon and Sun are in a straight line whereas this is not necessary for a lunar eclipse.
2. A lunar eclipse occurs when the Moon comes between the Earth and Sun and a solar eclipse occurs when the earth comes between the sun and the moon.
3. **A solar eclipse is when the moon comes between the Earth and the Sun, and a lunar eclipse occurs when the Earth comes between the Moon and the Sun.**
4. A solar eclipse is when the moon turns red due to the red light hitting it from the sun, and a lunar eclipse is when the sun gets completely blocked by the Moon.

The Sun

Macroscopic Properties of the sun

Q: What allows life to flourish on Earth, though the Sun is so hot?

1. The Earth does not receive radiation from the Sun so it is safe.
2. The Earth absorbs all the radiation from the Sun.
3. The Earth is placed not too close and not too far from the Sun.
4. Other planets shield the Earth from the Sun’s radiation as they orbit.