

Name _____

Exploring the Mysterious World of Mercury

Short Answer Key

1. Mercury's surface features include rocky terrain, craters, and massive cliffs. It is heavily cratered, similar to the Moon's surface, indicating a history of intense asteroid and comet impacts.
2. Mercury has a thin atmosphere because of its low gravity, which makes it challenging to retain a substantial atmosphere. The thin atmosphere cannot trap heat like Earth's, resulting in extreme temperature fluctuations.
3. A day on Mercury is almost as long as its year because it rotates very slowly on its axis, taking about 59 Earth days to complete one rotation. However, it orbits the Sun relatively quickly, with an 88 Earth-day year.
4. Mercury's lack of moons is unusual because most planets in our solar system have moons. Even Venus, which is similar in size to Earth, lacks moons. The reasons for this absence are not entirely understood.
5. The purpose of NASA's MESSENGER mission was to study Mercury's surface, composition, magnetic field, and exosphere. MESSENGER discovered that Mercury has a magnetic field, detected water ice in polar regions, and provided detailed maps of the planet's surface, among other findings.

