

Name _____

Moons of Planets: Celestial Companions in the Night Sky

Short Answer Key

1. Regular moons have relatively stable orbits, while irregular moons have more eccentric (less circular) orbits.
2. Tidal locking means that a moon always shows the same face to its parent planet. An example is Earth's moon, which is tidally locked to Earth, so we always see the same side of it.
3. Potential roles of moons include stabilizing a planet's axial tilt, causing tides, serving as natural laboratories for studying space, and potentially harboring subsurface oceans that could support life.
4. The capture theory suggests that some moons were not originally part of a planet's formation but were captured by its gravity as they passed close to the planet. This theory explains the origin of irregular moons.
5. One example is Europa, a moon of Jupiter. It has generated interest because it likely has a subsurface ocean of liquid water beneath its icy surface, which makes it a potential candidate for hosting life.

