

The Solar System consists of the Sun and the objects that orbit it, including eight planets, their moons, dwarf planets, comets, and asteroids. The Sun contains 99.8% of the mass in the solar system and is the primary source of energy. It is a nearly perfect sphere of hot plasma.

The planets in order from the Sun are: Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus, and Neptune. Each planet has unique characteristics and atmospheres. Earth is the only known planet to support life.

Mercury is the closest planet to the Sun and has a very thin atmosphere.

Venus, the second planet, has a thick atmosphere rich in carbon dioxide and sulfuric acid clouds. Earth, the third planet, is home to diverse ecosystems.

Mars is known as the Red Planet and has the largest volcano in the solar system: Olympus Mons. Jupiter is the largest planet and has a massive storm called the Great Red Spot that has existed for centuries.

Saturn is well known for its prominent ring system. Uranus rotates on its side and has a bluish appearance due to methane in its atmosphere. Neptune is the farthest planet and has supersonic winds in its atmosphere.

The Kuiper Belt and Oort Cloud contain many small icy bodies including dwarf planets like Pluto. Scientists continue to explore the solar system through missions and telescopes to uncover its secrets.