

Planets of the Solar System

Eight Planets

- There are eight major planets (Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus, and Neptune).
- There are five dwarf planets (Ceres, Pluto, Makemake, Haumea, and Eris).
- There are also over 150 different moons, and many asteroids and other space objects.

Study Tip

The length of a day is related to how quickly a planet rotates, and a year is determined by how long it takes for the planet to orbit once around the sun.

Orbits and Rotations

- Distances in the solar system are measured in **astronomical units**, or AU.
- One astronomical unit is the distance from the Earth to the Sun. This is approximately 150 million kilometers (93 million miles).

Planet	Mass (Relative to Earth)	Diameter (Relative to Earth)	Distance from Sun (AU)	Length of Day (in Earth Days)	Length of Year (in Earth Years)
Mercury	0.06 Earth's Mass	0.39 Earth's Diameter	0.39 AU	56.84 days	0.24 years
Venus	0.82 Earth's Mass	0.95 Earth's Diameter	0.72 AU	243.02 days	0.62 years
Earth	1.00 Earth's Mass	1.00 Earth's Diameter	1.00 AU	1.00 days	1.00 years
Mars	0.11 Earth's Mass	0.53 Earth's Diameter	1.52 AU	1.03 days	1.88 years
Jupiter	317.8 Earth's Mass	11.21 Earth's Diameter	5.20 AU	0.41 days	11.86 years
Saturn	95.2 Earth's Mass	9.41 Earth's Diameter	9.54 AU	0.43 days	29.46 years
Uranus	14.6 Earth's Mass	3.98 Earth's Diameter	19.22 AU	0.72 days	84.01 years
Neptune	17.2 Earth's Mass	3.81 Earth's Diameter	30.06 AU	0.67 days	164.8 years

Concept Check

- What is an astronomical unit?
- What are the eight planets, and what order are they in?