

The Solar System is a gravitationally bound system comprising the Sun and the objects that orbit it, either directly or indirectly. The primary objects in the Solar System are the eight planets, which orbit the Sun directly. These planets are divided into two groups: the four inner terrestrial planets (Mercury, Venus, Earth, and Mars) and the four outer gas giants (Jupiter, Saturn, Uranus, and Neptune).

In addition to the planets, the Solar System contains dwarf planets such as Pluto, as well as countless smaller objects including asteroids, comets, and meteoroids. The region beyond Neptune, known as the Kuiper Belt, is home to many icy bodies and is believed to be the source of short-period comets.

The Solar System formed approximately 4.6 billion years ago from the gravitational collapse of a region within a large molecular cloud. The majority of the collapsing mass collected in the center, forming the Sun, while the rest flattened into a protoplanetary disk from which the planets, moons, and other Solar System bodies formed.

The Sun, a nearly perfect sphere of hot plasma, is the most massive object in the Solar System, containing more than 99.8% of its total mass. Its gravity governs the motions of all the other objects in the Solar System. The energy and heat emitted by the Sun make life possible on Earth, the only known planet to support life.

THE SOLAR SYSTEM

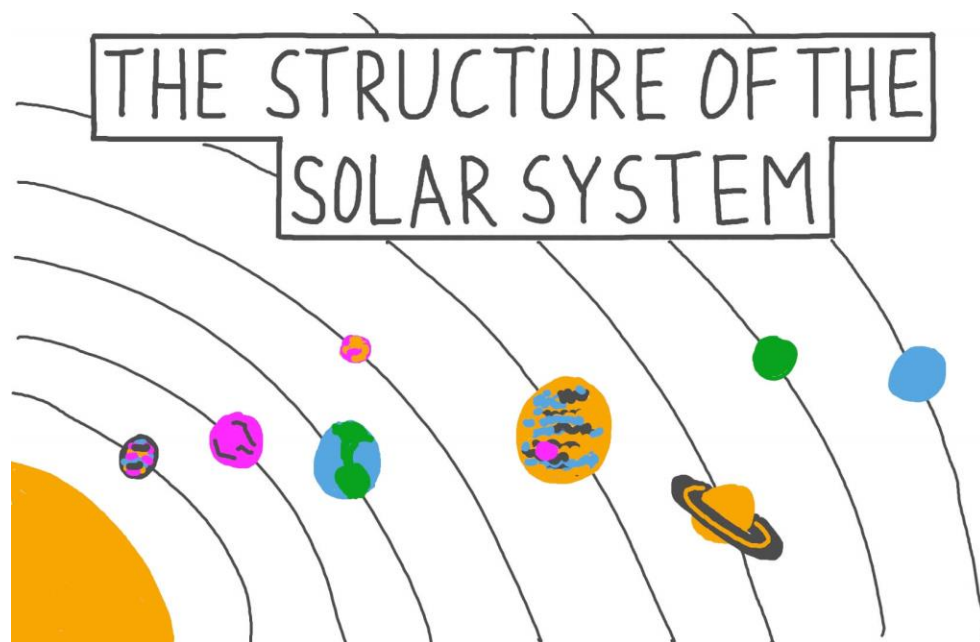


The **Solar System** is a collection of planets, moons, asteroids, comets, dust and gas that orbit the Sun.

The **Sun** is the center of our Solar System, and its gravity holds the Solar System together.

The **inner, rocky planets** are Mercury, Venus, Earth, and Mars.

The **outer planets** are gas giants Jupiter and Saturn and ice giants Uranus and Neptune.



Planet Data Table

Planet	Diameter (km)	Rotation Period (in Earth days)	Revolutions Period (in Earth days)	Average temperature (°C)	Surface Composition	Rings & Moons	Travel Time from Earth
Mercury	4,879	58.65	88	179°C	rocky	0	5 months
Venus	12,104	243	224	482°C	rocky	0	3 months
Earth	12,756	1	365.25	15°C	rocky	1 moon	-
Mars	6,766	1.03	687	-63°C	rocky	2 moons	8 months
Jupiter	142,984	0.42	4,332	-121°C	gaseous	60 moons + rings	5 years
Saturn	120,536	0.45	10,775	-125°C	gaseous	31 moons + rings	7 years
Uranus	51,118	0.71	30,681	-193°C	gaseous	27 moons + rings	10 years
Neptune	49,528	0.67	60,183	-173°C	gaseous	13 moons + rings	12 years