

What planets are in the Solar System?

As you zoom out, the solar system's outer planets - Jupiter, Saturn, Uranus and Neptune - come into view. The date slider allows you to move forwards or backwards by a few months to see the motion of the planets along their orbits. The top panel shows where the planets appear in the night sky from the Earth.

How many planets are in the Solar System?

Our solar system is made up of a star--the Sun--eight planets, 146 moons, a bunch of comets, asteroids and space rocks, ice, and several dwarf planets, such as Pluto. The eight planets are Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus, and Neptune. Mercury is closest to the Sun. Neptune is the farthest.

Which planets are in the inner and outer Solar System?

The inner Solar System includes Mercury, Venus, Earth, Mars, and the bodies in the asteroid belt. The outer Solar System includes Jupiter, Saturn, Uranus, Neptune, and the bodies in the Kuiper belt. [ 35 ]

Which planets are located at the centre of the Solar System?

Located at the centre of the solar system and influencing the motion of all the other bodies through its gravitational force is the Sun, which in itself contains more than 99 percent of the mass of the system. The planets, in order of their distance outward from the Sun, are Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus, and Neptune.

What type of star orbits the Sun?

Astronomers classify it as a G-type main-sequence star. The largest objects that orbit the Sun are the eight planets. In order from the Sun, they are four terrestrial planets (Mercury, Venus, Earth and Mars); two gas giants (Jupiter and Saturn); and two ice giants (Uranus and Neptune). All terrestrial planets have solid surfaces.

Which planets are closest to the Sun?

The inner planets (Mercury, Venus, Earth and Mars) are all relatively close together while the outer planets (Jupiter, Saturn, Uranus and Neptune) are much more spread out. In the time it takes the Earth to complete one orbit, the planets closer to the Sun (Mercury and Venus) orbit at least once.



The night sky over New Zealand's Southern Alps gives a spectacular view of the Milky Way, the galaxy in which our own solar system resides. Mike Mackinven / Getty Images. Our planet Earth is part of a solar system that consists of eight planets orbiting a giant, fiery star we call the sun. For thousands of years, astronomers studying the solar system have noticed ???



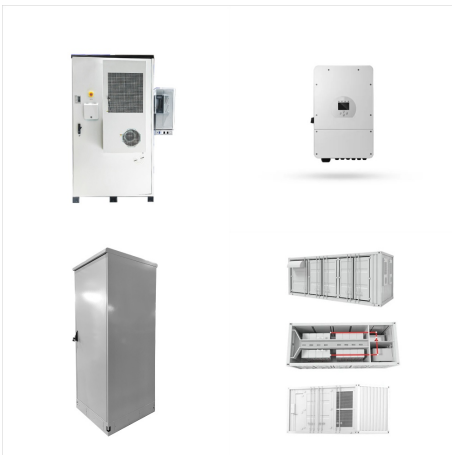
Mars, the red planet, is the seventh largest planet in our solar system. Mars is about half the width of Earth, and has an equatorial diameter of about 4,221 miles (6,792 kilometers). Mars is the fourth planet from the Sun, orbiting at an average distance of 141.6 million miles (227.9 million kilometers).



Kepler's three laws describe how planets orbit the Sun. They describe how (1) planets move in elliptical orbits with the Sun as a focus, (2) a planet covers the same area of space in the same amount of time no matter where it is in its orbit, and (3) a planet's orbital period is proportional to the size of its orbit.



The planets of the outer solar system are Jupiter, Saturn, Uranus, and Neptune (Pluto is now classified as a dwarf planet): The first thing to notice is that the solar system is mostly empty space. The planets are very small compared to the space between them. (called the ecliptic and defined by the plane of the Earth's orbit). The



The Nine Planets is an encyclopedic overview with facts and information about mythology and current scientific knowledge of the planets, moons, and other objects in our solar system and beyond. The 9 Planets in Our Solar System



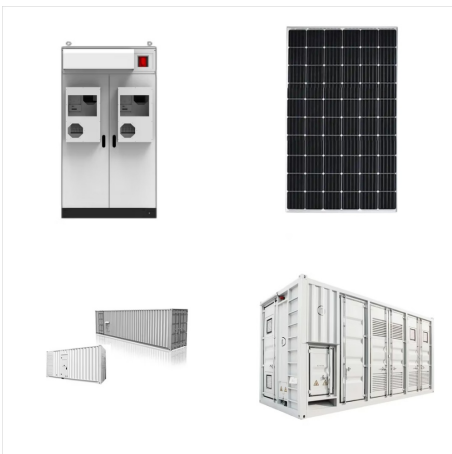
This tool shows approximate orbits of the planets and major planetary satellites. Optionally, one or more user-selected small body (asteroids and comets) orbit may also be shown. For help using this tool, select the Help item under the menu icon (below).; To display planetary satellites of a specific planet, select the Settings item under the menu icon (below), then select the Moons ???



Planet, broadly, any relatively large natural body that revolves in an orbit around the Sun or around some other star and that is not radiating energy from internal nuclear fusion reactions. There are eight planets orbiting the Sun ???



Alternatively, you can use the slider below the chart to adjust the zoom level. As you zoom out, the solar system's outer planets ??? Jupiter, Saturn, Uranus and Neptune ??? come into view. can be added which mark the closest and further points from the Sun along the orbits of each of the planets. The Earth's orbit is additionally labelled



The strange orbit of the dwarf planet Pluto is inclined about 17° to the ecliptic, and that of the dwarf planet Eris (orbiting even farther away from the Sun than Pluto) by 44°, but all the major planets lie within 10° of the common plane of the solar system.



# SOLAR SYSTEM PLANETS IN ORBIT **SOLAR**



Neptune: The farthest giant planet from the sun in our solar system. It is the fourth largest planet in the solar system. orbit: The curved path of a celestial object or spacecraft around a galaxy, star, planet or moon. One complete circuit around a celestial body. perihelion: The point in the orbit of a planet, comet or other object at which



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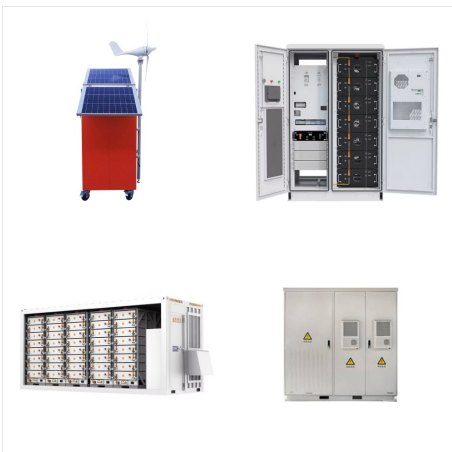
Our solar system is made up of a star???the Sun???eight planets, 146 moons, a bunch of comets, asteroids and space rocks, ice, and several dwarf planets, such as Pluto. Planets, asteroids, and comets orbit our Sun. They travel around our Sun in a flattened circle called an ellipse. It takes the Earth one year to go around the Sun. Mercury



? Since the Earth orbits the Sun, you're actually in orbit right now! Many planets, like Earth, have moons that orbit them. A satellite can also be man-made, like the International Space Station. Planets, comets, asteroids and other objects in the solar system orbit the Sun.



Kepler's laws describe the behavior of planets in their orbits as follows: (1) planetary orbits are ellipses with the Sun at one focus; (2) in equal intervals, a planet's orbit sweeps out equal areas; and (3) the relationship between the orbital period (P) and the semimajor axis (a) of an orbit is given by  $(P^2 = a^3)$  (when a is in units



The solar system has one star, eight planets, five dwarf planets, at least 290 moons, more than 1.3 million asteroids, and about 3,900 comets. Our solar system takes about 230 million years to orbit the galactic center. 6. Spiraling ???

# SOLAR SYSTEM PLANETS IN ORBIT **SOLAR®**



The relative sizes of the orbits of planets in the solar system. The inner solar system and asteroid belt is on the upper left. The upper right shows the outer planets and the Kuiper belt. While studying the solar system, Johannes Kepler discovered the relationship between the time it takes a planet to make one complete orbit around the Sun, or



Here is the text of the IAU's Resolution B5:  
Definition of a Planet in the Solar System: has cleared the neighbourhood around its orbit. A "dwarf planet" is a celestial body that (a) is in orbit around the Sun, (b) has sufficient mass for its self-gravity to overcome rigid body forces so that it assumes a hydrostatic equilibrium (nearly



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Our solar system consists of our star, the Sun, and everything bound to it by gravity ??? the planets Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus, and Neptune; dwarf planets such as ???



OverviewFormation and evolutionGeneral characteristicsSunInner Solar SystemOuter Solar SystemTrans-Neptunian regionMiscellaneous populations



The Sidereal Period is the time taken by the planet to return to the same place in its orbit, relative to the stars. Perihelion and Aphelion are the planet's closest and furthest distances from the Sun, measured in Astronomical Units (AU). 1 AU is defined by the average distance from the Earth to the Sun. The globes of the planets





All the planets, asteroids, meteoroids, and comets in the solar system orbit the sun. This is called heliocentric orbit. Almost all these bodies also travel in the same orbital plane, a thin disk surrounding the sun and extending to the edge of the solar system. The orbital plane usually prevents planets or other celestial bodies from bumping into each other.



A perfect circle has an eccentricity of zero. Earth's eccentricity is 0.017. Mercury has the largest eccentricity of all the planets in the solar system, at 0.206. Types of Orbits Moons orbit planets, while planets orbit the sun. Our entire solar system orbits the black hole at the center of our galaxy, the Milky Way.



Planetary Fact Sheet in U.S. Units. Planetary Fact Sheet - Values compared to Earth. Index of Planetary Fact Sheets - More detailed fact sheets for each planet. Notes on the Fact Sheets - Explanations of the values and headings in the fact sheet. Schoolyard Solar System - Demonstration scale model of the solar system for the classroom



Our solar system is made up of a star???the Sun???eight planets, 146 moons, a bunch of comets, asteroids and space rocks, ice, and several dwarf planets, such as Pluto. Moons orbit planets. Right now, Jupiter has the most named moons???50. Mercury and Venus don't have any moons. Earth has one. It is the brightest object in our night sky.