



Some astronomers argued that location (context) is important, especially in understanding the formation and evolution of the solar system. One idea is to simply define a planet as a natural object in space that is massive enough for gravity to make it approximately spherical.



The Sun is a 4.5 billion-year-old yellow dwarf star ??? a hot glowing ball of hydrogen and helium ??? at the center of our solar system. It's about 93 million miles (150 million kilometers) from Earth and it's our solar system's only star. Without the Sun's energy, life ???



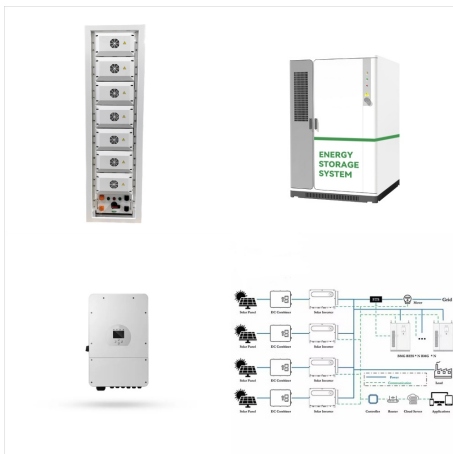
In the outer solar system, the gas giants Jupiter and Saturn and the ice giants Uranus and Neptune have dozens of moons. As these planets grew in the early solar system, they were able to capture smaller objects with their large gravitational fields.



Jupiter is the fifth planet from our Sun and is, by far, the largest planet in the solar system ??? more than twice as massive as all the other planets combined. Jupiter's stripes and swirls are actually cold, windy clouds of ammonia and water, floating in an atmosphere of hydrogen and helium.



By the time Cassini dove into Saturn at the end of its mission, it had observed the planet for less than half of a Saturn year. But it had also orbited the gas giant 294 times, forever changing our understanding of the Saturn system and yielding insight for



Saturn is the sixth planet from the Sun and the second-largest planet in our solar system. Like fellow gas giant Jupiter, Saturn is a massive ball made mostly of hydrogen and helium. Saturn is not the only planet to have rings, but none are as spectacular or as complex as Saturn's.



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 Pluto; dozens of moons; and millions of asteroids, comets, and



While Earth is only the fifth largest planet in the solar system, it is the only world in our solar system with liquid water on the surface. Just slightly larger than nearby Venus, Earth is the biggest of the four planets closest to the Sun, all of which are made of rock and metal.



Haumea is roughly the same size as Pluto. It is one of the fastest rotating large objects in our solar system. The fast spin distorts Haumea's shape, making this dwarf planet look like a football. Two teams claim credit for discovering Haumea citing evidence from



Dark, cold, and whipped by supersonic winds, ice giant Neptune is the eighth and most distant planet in our solar system. More than 30 times as far from the Sun as Earth, Neptune is the only planet in our solar system not visible to the naked eye.