

What is the Solar System Exploration website?

Launched in October 1998, the Solar System Exploration website is a real-time, living encyclopedia of the robotic exploration of our solar system. We provide the public with reliable, accurate, up-to-date information about the planets, moons, asteroids, comets and everything else in our solar system.

Why is our planetary system called the Solar System?

Our planetary system is called "the solar system" because we use the word "solar" to describe things related to our star, after the Latin word for Sun, "solis." Our solar system extends much farther than the eight planets that orbit the Sun. The solar system also includes the Kuiper Belt that lies past Neptune's orbit.

What is the latest version of the Solar System Exploration website?

Previous versions of this site. The most recent version was launched on Jan. 29, 2018. Launched in October 1998, the Solar System Exploration website is a real-time, living encyclopedia of the robotic exploration of our solar system.

What are some interesting facts about our Solar System?

Our solar system is in one of the Milky Way galaxy's spiral arms called the Orion Spur. 5. A Long Way Around Our solar system takes about 230 million years to orbit the galactic center. 6. Spiraling Through Space The Milky Way is a barred spiral galaxy. 7. Room to Breathe Our solar system has many worlds with many types of atmospheres. 8.

What is eyes on the Solar System?

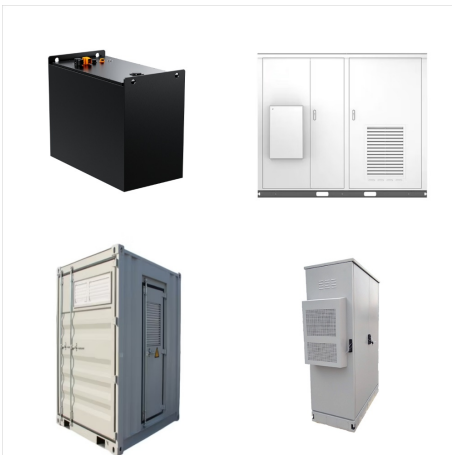
Eyes on the Solar System: A real-time visualization of our solar system using planetary science data. The Near-Earth Object (NEO) Surveyor is an infrared space telescope being built to help advance NASA's planetary defense efforts -- the first space telescope specifically designed to hunt asteroids and comets that may be potential hazards to Earth.

What is the largest object in the Solar System?

The Sun is the largest object in our solar system. Its diameter is about 865,000 miles (1.4 million kilometers). Its gravity holds the solar system together, keeping everything from the biggest planets to the smallest bits of debris in orbit around it.



This site and many others are joining science.nasa.gov. A preview version of the site is available at beta.science.nasa.gov. Check Out Our New Space Twelve of the 24 men who traveled from Earth to the Moon walked on its surface. The ???



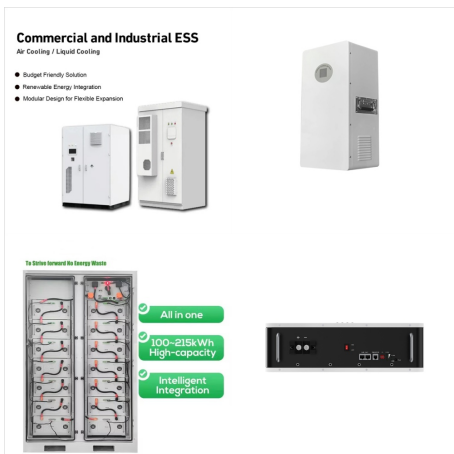
Moons ??? also called natural satellites ??? come in many shapes, sizes and types. They are generally solid bodies, and few have atmospheres. Most planetary moons probably formed out the discs of gas and dust circulating around planets in the early solar system. There are hundreds of moons in our solar system ??? even asteroids [????]



Overview. The Sun's gravity holds the solar system together, keeping everything ??? from the biggest planets to the smallest particles of debris ??? in its orbit. The connection and interactions between the Sun and Earth drive the seasons, ???



Length of day 25 Earth days at the equator and 36 Earth days at the poles.. Length of year The Sun doesn't have a "year," per se. But the Sun orbits the center of the Milky Way about every 230 million Earth years, bringing the planets, asteroids, comets, and other objects with it.



NASA studies eclipses from the ground, in our atmosphere, and in space, influencing solar, planetary, and Earth science. About Eclipses. An eclipse is an awe-inspiring celestial event that drastically changes the appearance of the two biggest objects we see in our sky: our Sun and Moon. On Earth, people can experience solar and lunar eclipses



Cassini at Enceladus: Overview For decades, scientists didn't know why Enceladus was the brightest world in the solar system, or how it related to Saturn's E ring. Cassini found that both the fresh coating on its surface, and icy material in the E ring originate from vents connected to a global subsurface saltwater ocean that [???



NASA's Lucy spacecraft flew by not just its first asteroid, but its first three, on Nov. 1, 2023. Early images returned by Lucy reveal that the small main belt asteroid Dinkinesh has a contact binary as a satellite (that is, its satellite is made of two smaller objects touching each other). The Lucy team used this encounter as an opportunity to



The only spacecraft to explore Pluto up close was NASA's New Horizons. It flew by the dwarf planet and its moons in 2015. Namesake. Pluto was named by an 11-year-old girl. In 1930, Venetia Burney of Oxford, England, suggested to her grandfather that the new discovery be named for the Roman god of the underworld. He forwarded the name to the



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 ???



The findings of Mercury's solid inner core, described in Geophysical Research Letters, certainly adds to a better understanding of Mercury, but there are larger ramifications. Just how similar, and how different, the cores of the planets are may give us clues about how the solar system formed and how rocky planets change over time.



How Many Moons Are in Our Solar System?  
Naturally-formed bodies that orbit planets are called moons, or planetary satellites. The best-known planetary satellite is, of course, Earth's Moon. Since it was named before we learned about other planetary satellites, it is called simply "Moon." According to the NASA/JPL Solar System Dynamics team, the current tally [???



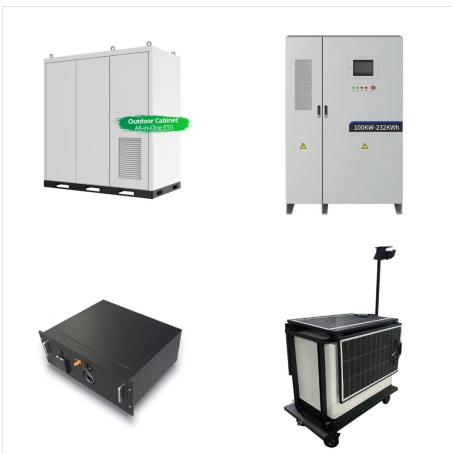
Introduction. The smallest planet in our solar system and nearest to the Sun, Mercury is only slightly larger than Earth's Moon. From the surface of Mercury, the Sun would appear more than three times as large as it does when viewed from Earth, and the sunlight would be as much as seven times brighter.



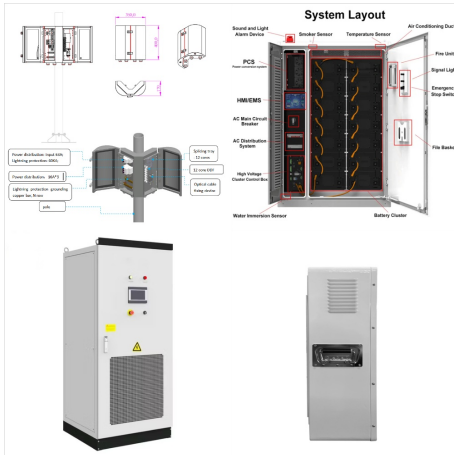
Our solar system consists of our star, the Sun, and everything bound to it by gravity ??? the planets Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus, and Neptune; dwarf planets such as ???



About the Mission. After two decades in space, NASA's Cassini spacecraft has ended its remarkable journey of exploration. Having expended almost every bit of the rocket propellant it carried to Saturn, operators deliberately plunged Cassini into the planet to ensure Saturn's moons remain pristine for future exploration???in particular, the ice-covered, ocean-bearing moon ???



NASA currently has two rovers (Curiosity and Perseverance), one lander, and one helicopter exploring the surface of Mars. Perseverance rover ??? the largest, most advanced rover NASA has sent to another world ??? touched down on Mars on Feb. 18, 2021, after a 203-day journey traversing 293 million miles (472 million kilometers).



On July 14, 2015, NASA's New Horizons spacecraft made its historic flight through the Pluto system ??? providing the first close-up images of Pluto and its moons and collecting other data that has transformed our understanding of these mysterious worlds on ???



ESA (the European Space Agency) has released a new, 208-gigapixel mosaic of images taken by Euclid, a mission with NASA contributions that launched in 2023 to study why the universe is expanding at an accelerating rate. Learn more. Featured News. More NASA News. Article. 2 min read. NASA Reveals Prototype Telescope for Gravitational Wave



This NASA poster set showcases the beauty of our solar system and beyond. Website links and an optional poster backs with orbit diagrams and context provide additional details and a deeper dive to explore our galactic neighborhood. The ???



In 2005, NASA's Cassini spacecraft discovered that icy water particles and gas gush from the moon's surface at approximately 800 miles per hour (400 meters per second). The eruptions appear to be continuous, generating an enormous halo of fine ice dust around Enceladus, which supplies material to Saturn's E-ring.



Europa Clipper will launch in Oct. 2024 from Pad 39A at NASA's Kennedy Space Center in Florida aboard a SpaceX Falcon 9 Heavy launch vehicle. The journey to Jupiter will take approximately five and a half years, during which the spacecraft will perform a Mars Gravity Assist in Feb. 2025 and an Earth Gravity Assist in Dec. 2026.



Illustrated by former NASA intern Shane Tolentino, this story shares a glimpse into future Artemis missions. Learn about the elements that will make Artemis possible. Read You Are Going. NASA Space Place. NASA Space Place's mission is to inspire upper-elementary-aged kids' learning of space and Earth science through games, activities, and short



Our solar system includes the Sun, eight planets, five officially named dwarf planets, and hundreds of moons, and thousands of asteroids and comets. Our solar system is located in the Milky Way, a barred spiral galaxy with two major arms, and two minor arms.



Introduction. This seemingly simple question doesn't have a simple answer. Everyone knows that Earth, Mars and Jupiter are planets. But both Pluto and Ceres were once considered planets until new discoveries triggered scientific debate about how to best describe them???a vigorous debate that continues to this day. The most recent definition of a planet was adopted by the ???