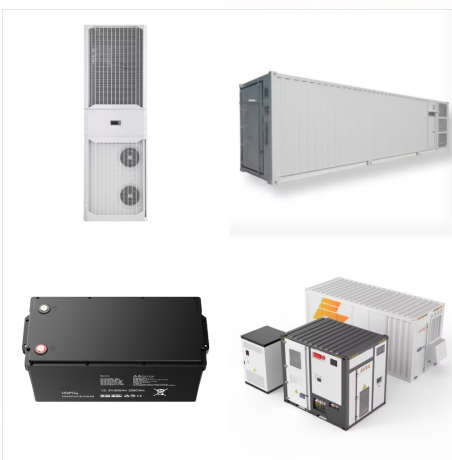




A planet is a celestial body that (a) is in orbit around the Sun, (b) has sufficient mass for its self-gravity to overcome rigid body forces so that it assumes a hydrostatic equilibrium (nearly ???)



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JPL's Biotechnology and Planetary Protection Group (BPPG) has had a longstanding involvement in mission implementation, and more recently, space microbiology research and technology development. The team ensures that spacecraft meet stringent cleanliness requirements to prevent forward contamination (microbial contamination of the solar system by spacecraft that ???)



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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. NASA Space Place: All About Earth. Keep Exploring. Discover



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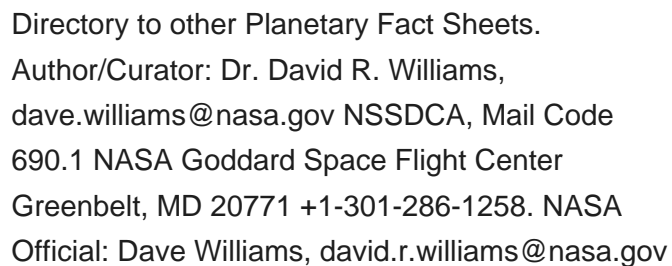
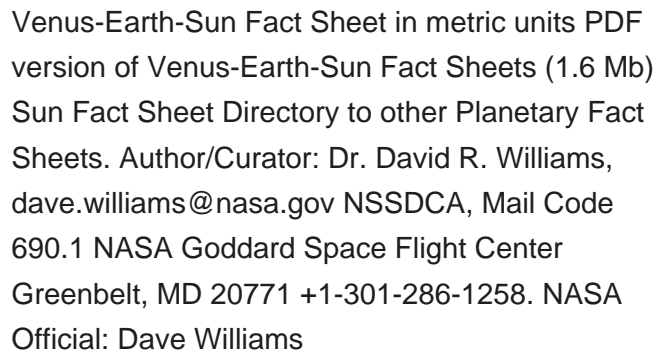
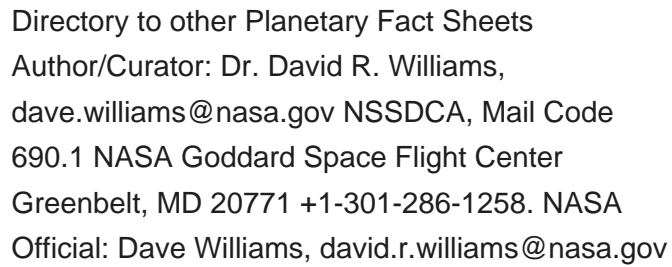
The order and arrangement of the planets and other bodies in our solar system is due to the way the solar system formed. Nearest to the Sun, only rocky material could withstand the heat when the solar system was young. For this reason, the first four planets ??? Mercury, Venus, Earth, and Mars ??? are terrestrial planets.



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 ???



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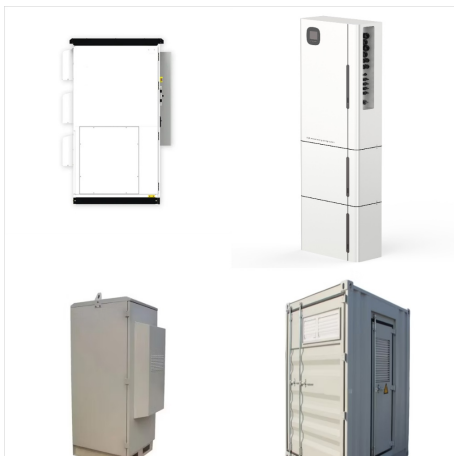




Notes on the Fact Sheets - Explanations of the values and headings in the fact sheet. Schoolyard Solar System - Demonstration scale model of the solar system for the classroom. Author/Curator: Dr. David R. Williams, [dave.williams@nasa.gov](mailto:dave.williams@nasa.gov) Greenbelt, MD 20771 +1-301-286-1258. NASA Official: Dave Williams, [david.r.williams@nasa.gov](mailto:david.r.williams@nasa.gov) Last



Uranus is distinguished by the fact that it is tipped on its side. Its unusual position is thought to be the result of a collision with a planet-sized body early in the solar system's history. Given its odd orientation, with its polar regions exposed to sunlight or darkness for long periods, scientists were not sure what to expect at Uranus.



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Compare planets, dwarf planets, and a comet, with this chart adapted from NASA data. The chart displays basic data for Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus, Neptune, Ceres, Pluto, Eris, and Comet Halley. The featured information includes the object's average distance from the Sun, perihelion, aphelion, mean equatorial radius, mass, rotation period, orbital ???



Directory to other Planetary Fact Sheets Notes on the factsheets - definitions of parameters, units, notes on sub- and superscripts, etc. Author/Curator: Dr. David R. Williams, [dave.williams@nasa.gov](mailto:dave.williams@nasa.gov) NSSDCA, Mail Code 690.1 NASA Goddard Space Flight Center Greenbelt, MD 20771 +1-301-286-1258. NASA Official: Dave Williams, [david.r.williams@nasa.gov](mailto:david.r.williams@nasa.gov)



? Our solar system is home to eight amazing planets. Some are small and rocky; others are big and gassy. Some are so hot that metals would melt on the surface. Others are freezing cold. We're learning new things about our neighboring planets all the time. We send spacecraft to take pictures, gather information, and find out more about them.



NASA's Jet Propulsion Laboratory, the leading center for robotic exploration of the solar system. Missions. News. Galleries. Events. Visit. Topics. Media Information. JPL Media Contacts. Press Kits. Fact Sheets. Media Information. Fact Sheets. About JPL. Jet Propulsion Laboratory; Astrophysics/Origins. SPHEREx; Coronagraph Instrument on



Our solar system has eight planets, and five dwarf planets - all located in an outer spiral arm of the Milky Way galaxy called the Orion Arm. NASA explores the unknown in air and space, innovates for the benefit of humanity, and inspires the world through discovery. About NASA's Mission; Join Us. Home;



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What's New in Lunar & Planetary Science. The NASA Europa Clipper mission to explore Jupiter's fourth largest moon launched on 14 October at 16:06 UT (12:06 p.m. EDT). For more, see the NASA press release. The European Space Agency Hera mission to the Didymos/Dimorphos asteroid system to visit the impact site of the DART mission launched on ???



Solar System Fact Sheet ! MERCURY VENUS  
EARTH MARS JUPITER SATURN URANUS  
NEPTUNE CERES PLUTO ERIS COMET HALLEY  
Average Distance from Sun (km) 57.9 6x 10<sup>6</sup>  
6108.2 6x 10<sup>6</sup> 6149.6 x 10<sup>6</sup> 227.9 x 10<sup>6</sup> 778.6 x 10<sup>6</sup>  
1,427 x 10<sup>6</sup> 2,873 x 10<sup>6</sup> 4,495 x 10<sup>6</sup> 414 x 10<sup>6</sup> 5,906  
x 10<sup>6</sup> 10,166 x 10<sup>6</sup> 2,678 x 10<sup>6</sup> perihelion (km)!



Chandra Fact Sheets. Chandra X-ray Observatory fact sheets provide current and background information on the telescope and its discoveries. To download the free Adobe Acrobat PDF reader, visit the Adobe download page. Exploring the Invisible Universe Chandra X-ray Observatory (PDF)  
Chandra X-ray Observatory Science Fact Sheet.  
Chandra X-ray





supported the concept of a "solar system" in which all the plan-ets, including Earth, revolve around a central star ??? the Sun. Planetary moons, the rings of Saturn, and more planets were eventually discovered: Uranus (in 1781) and Neptune (1846). The largest known asteroid, Ceres, was discovered between Mars and Jupiter in 1801.