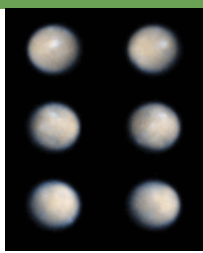


dwarf planet

Compton's by Britannica



Six false-color images show the rotation of Ceres, a dwarf planet and the largest asteroid. Like ...
ESA/STScI/NASA

The objects called dwarf planets are similar to the solar system's eight planets but are smaller. Like planets, they are large, round objects that orbit the Sun but that are not moons. The first three objects classified as dwarf planets were Pluto, Eris, and Ceres.

The category dwarf planet was created as a result of intense debate as to whether Pluto should be called a planet. Pluto had been considered the solar system's ninth planet at the time of its discovery in 1930. However, in 2006 the International Astronomical Union (IAU), the organization responsible for approving the names of astronomical objects for the scientific

community, defined "planet" so that only eight bodies in the solar system qualified. At the same time, it established a new, distinct class of objects called dwarf planets. According to the IAU, both planets and dwarf planets must orbit the Sun and be massive enough for their gravity to have pulled them into spherical or nearly spherical shapes. Whether such an object is classified as a planet or dwarf planet depends on whether it has "cleared the neighborhood around its orbit." An object with a mass great enough for its strong gravity to have swept up or deflected away most of the smaller nearby bodies is considered a planet. An object that has failed to do so, and thus failed to grow larger, is a dwarf planet.

Eris and Pluto are the largest-known members of the Kuiper belt, a distant region containing countless small, icy bodies orbiting the Sun. Ceres, the largest asteroid, orbits from within the main asteroid belt. So Eris, Pluto, and Ceres do not qualify as planets under the IAU's definition because they have not cleared away many chunks of icy and rocky debris from their orbital vicinities.

For practical purposes, objects classified as dwarf planets are smaller than the planet Mercury, which has a diameter of about 3,032 miles (4,879 kilometers). Eris is thought to have a diameter of roughly 1,550 miles (2,500 kilometers). Pluto is slightly smaller, with a diameter of about 1,456 miles (2,344 kilometers). The diameter of Ceres is about 584 miles (940 kilometers). (*See also* planet, "What Is a Planet?".)

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