

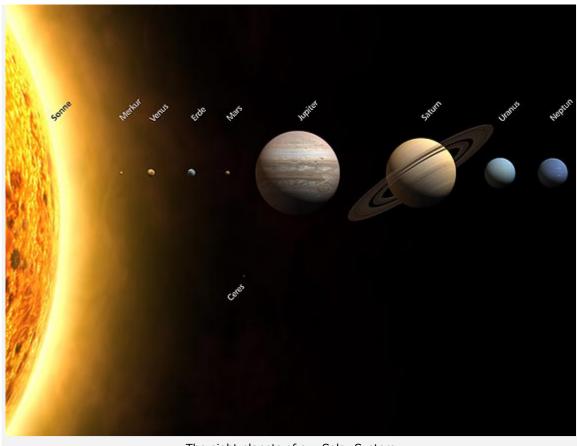


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Why is Pluto no longer a planet?

Week 40

It happened on 24 August 2006: instead of the nine planets it had up to that time, our Solar System suddenly had only eight – the planet Pluto was no longer a planet. What happened?



The eight planets of our Solar System

In August 2006, astronomers from all over the world gathered at the 26th General Assembly of the International Astronomical Union (IAU) in Prague. Among other things, they reorganised our planetary system and agreed on the scientific definition of a planet. A reorganisation had become necessary as an increasing number of heavenly bodies were being discovered beyond Pluto's orbit that were about the same size as Pluto. If these bodies were also granted the status of being planets, this would lead to a real flood of planets in the long term. Under the chair of the well-known female astronomer Jocelyn Bell, the astronomers thus agreed on three criteria that a heavenly body must fulfil in order to be a planet. First, the body must orbit the Sun or a star and must not be a star itself. Second, it must have sufficient mass that is has become spherical due to its own gravity. (See also the astronomic question from week 31: Why aren't all heavenly bodies perfectly spherical?). Thirdly, since its formation, it must have cleared the area around its orbit of small bodies.

Three classes: classical planets, dwarf and planetoids

Pluto does not satisfy the third criterion - although it fulfils the first two, it was named a 'dwarf planet' together with Ceres (see also the astronomic question from week 31) and Eris (which orbits the Sun outside Neptune's orbit). The updated Solar System now has three categories of planet: the eight classical planets – Mercury to Neptune, a slowly growing number of dwarf planets and the irregularly formed planetoids or Small Solar System Bodies (SSSBs).

There are already new mnemonics for remembering the order of the eight planets (moving away from the Sun), including "My Very Elegant Mother Just Served Us Nachos" - Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus, Neptune.

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