

Pluto - Not a Planet Anymore

By Cindy Grigg

¹ Science changes as we learn more and more new things. Pluto was discovered in 1930. At that time, there wasn't really a definition for what a planet was. We didn't know as much about space as we do now. In the summer of 2006, scientists of the IAU, or the International Astronomical Union, met to discuss the naming of new objects in the solar system. At this time, the members agreed to remove Pluto from the list of planets. It is now known as a "dwarf planet." A dwarf planet is not a planet. Here are the reasons why.

² There are three main things that make Pluto different from the other planets in our solar system. First, Pluto is less than half the size of any other planet. It is very different from the other gas giants, the nearest planets to it. The first four planets (Mercury, Venus, Earth, and Mars) are rocky planets with solid surfaces. The next four planets are gas giants. Jupiter, Saturn, Uranus, and Neptune are huge planets with small rocky, metal cores surrounded by huge balls of gas. These four planets do not have a solid surface. Saturn is the second-largest planet. Uranus is the third-largest. Neptune is the fourth-largest planet. Then comes little Pluto. It is about one-sixth the size of Earth and about 1/100 the size of Jupiter. It is made of rock and ice. Pluto is like a comet, not a gas giant.

³ Pluto also has a very unusual orbit compared to the other planets. The planets orbit the sun close to an imaginary flat plane and have nearly circular orbits. In contrast, Pluto's orbit is highly tilted above the orbits of the major planets and is very non-circular. Because of this, Pluto's orbit crosses over Neptune's. Part of the time Pluto is closer to the sun than Neptune is.

⁴ When the solar system formed, each planet's gravity began to pull in matter from its orbit. The eight major planets have captured the chunks of matter within their orbits. Pluto, however, has many friends orbiting nearby. There are thousands of small, icy, rock-like objects orbiting within Pluto's orbit, and some of them are larger than Pluto! In 1992, astronomers started to discover smaller objects beyond Pluto. This area is now called the Kuiper (pronounced KY per) Belt. These objects are larger than asteroids and comets but smaller than real planets. Pluto and the larger ones have been renamed as dwarf planets. You may also hear them called trans-Neptunian objects. If scientists had known about the Kuiper Belt when Pluto was discovered in 1930, it would probably never have been called a planet.

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<p>1. Pluto is now classified as a _____.</p> <p><input type="radio"/> A Major planet</p> <p><input type="radio"/> B Dwarf planet</p> <p><input type="radio"/> C Trans-Neptunian object</p> <p><input type="radio"/> D Both B and C</p>	<p>2. If scientists had known about the _____ when Pluto was discovered, it would probably not have been called a planet.</p> <p><input type="radio"/> A Kuiper Belt</p> <p><input type="radio"/> B Other planets</p> <p><input type="radio"/> C International Astronomical Union</p>
<p>3. The IAU had _____ reasons to believe that Pluto is not a planet.</p> <p><input type="radio"/> A One</p> <p><input type="radio"/> B Three</p> <p><input type="radio"/> C Two</p>	<p>4. The first reason listed that the IAU scientists believe Pluto is not a planet is _____.</p> <p><input type="radio"/> A Its shape</p> <p><input type="radio"/> B Its size and its surface</p> <p><input type="radio"/> C Its moon</p>
<p>5. The second reason listed that the IAU scientists believe Pluto is not a planet is _____.</p> <p><input type="radio"/> A The length of Pluto's year</p> <p><input type="radio"/> B Pluto's orbit</p> <p><input type="radio"/> C The length of Pluto's day</p>	<p>6. The third reason listed that the IAU scientists believe Pluto is not a planet is _____.</p> <p><input type="radio"/> A Neptune's orbit</p> <p><input type="radio"/> B Pluto's moon</p> <p><input type="radio"/> C Other objects within Pluto's orbit</p>

