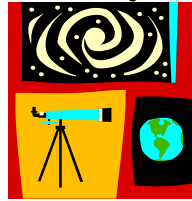


# Is Pluto Really a Planet?



## WebQuest

**Introduction:** Controversy about whether or not Pluto is a planet continues to this day. Arguments are made that Pluto is a minor planet at best, or even some other heavenly body such as a comet.

**Task:** In your role as a NASA planetary scientist, it is your team's job to research information about the characteristics of Earth, Pluto and Comets listed in the attached *Comparison Matrix*. Based on the information you gather, make an argument about whether or not Pluto should be continued to be classified as a planet. The evidence you present to support your argument must be in writing and include appropriate diagrams. You must also create and include a 3-dimensional model to support your claim.

### Information Sources:

[http://science.nasa.gov/newhome/headlines/ast17feb99\\_1.htm](http://science.nasa.gov/newhome/headlines/ast17feb99_1.htm)

<http://pluto.jhuapl.edu/plutocharon.htm>

<http://www.seds.org/nineplanets/nineplanets/earth.html>

### Process:

Arguments contain information to support a claim. They contain the following elements:

1. **Evidence:** information that leads to a claim. What information is presented that leads to a claim of whether Pluto is a planet?
2. **Claim:** the assertion that something is true – the claim that is the focal point of the argument. What is the basic statement or claim that is the focus of the information you gather?
3. **Support:** examples of or explanations for the claim. What examples or explanations will you present to support your claim? Can you create a model to support your claim?
4. **Qualifier:** a restriction on the claim or evidence for the claim. What concessions are made about the claim?

**Learning advice:** Scientific arguments are based primarily on research and evidence. Arguments based purely on one's opinion, beliefs, or feelings will not suffice. Be certain to include evidence for your claim.

**Presentation:** Your team will be allowed ten minutes to present your evidence and support your claim.

## Is Pluto Really a Planet?

Your goal is to gather evidence to support your claim. It is up to you to analyze that evidence and determine whether or not Pluto qualifies as a planet.

<b>Comparison Matrix</b>				
<i>Characteristics</i>	<b>Earth</b>	<b>Pluto</b>	<b>Comet</b>	
Size and shape				Similarities
				Differences
Shape and plane of orbit around the sun				Similarities
				Differences
Atmosphere				Similarities
				Differences
Composition				Similarities
				Differences