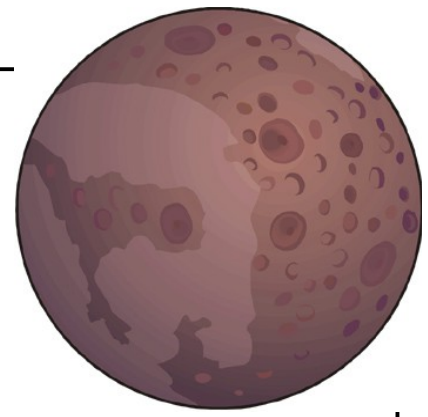


Name: _____

Planets and Dwarf Planets

by Shauna Hutton



Wow! Technology has improved so well in the last several years that we keep finding more and more objects in our solar system! Because of this, scientists have had to come up with new categories for objects in space. This included reclassifying Pluto as a dwarf planet, in 2006.

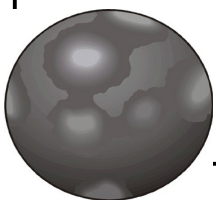
The eight planets in our solar system are classified as inner planets (Mercury, Venus, Earth, and Mars) and outer planets (Jupiter, Saturn, Uranus, and Neptune).

The International Astronomical Union (IAU) gives the new definition of planet as an object in space that:

- is in orbit around the sun
- is nearly round in shape
- has cleared the neighborhood around its orbit
- is not a satellite

Each planet travels around the sun in a specific path, called an orbit. "Clearing the neighborhood around its orbit" means there are no objects similar to the planet at roughly the same distance from the Sun. In other words, a planet is not located in an asteroid belt or surrounded by clusters of other space objects.

A satellite is an object that revolves around a larger planet. They can occur naturally, like the moon of a planet, or they can be man-made, like the Hubble Space Telescope.



There are currently five dwarf planets listed. They are: Ceres, Pluto, Eris (pronounced ee'-ris), MakeMake (pronounced mah-kee-mah-kee), and Haumea (pronounced hah-oo-may-ah).

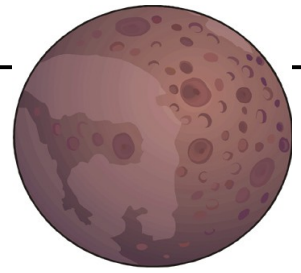
Eris was a very important discovery in 2005. Since it was larger than Pluto, some astronomers thought it should be considered a planet. However, since Pluto and Eris are located in an asteroid belt, other astronomers began to think maybe Pluto and Eris were both very large asteroids. In 2006, Astronomers decided it was time to update the current definition of a planet and create the new category of dwarf planets.

Dwarf planets are similar to planets except they don't clear their orbit like planets do. The IAU defines a dwarf planet as an object in space that:

- is in orbit around the Sun
- is nearly round in shape
- has **not** cleared the neighborhood around its orbit
- is not a satellite

This is a very exciting time. New objects in space are still being discovered! Scientists say there will likely be more dwarf planets announced in the next few years. What will be the name of the next dwarf planet? What name would you choose?

Name: _____



Planets and Dwarf Planets

by Shauna Hutton

1. Name the four inner planets.

_____, _____, _____,

and _____

2. Name the four outer planets.

_____, _____, _____,

and _____

3. Name the five dwarf planets.

_____, _____, _____,

_____, and _____

4. According to the IAU, how is a planet different from a dwarf planet?

5. According to the article, which object would **not** be considered a satellite?

a. Earth's moon

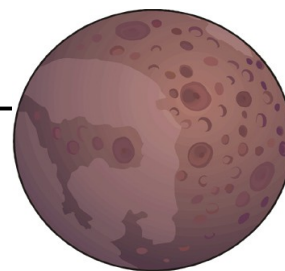
b. Hubble Space Telescope

c. Pluto

d. Titan, Saturn's largest moon

6. What is an orbit?

Name: _____



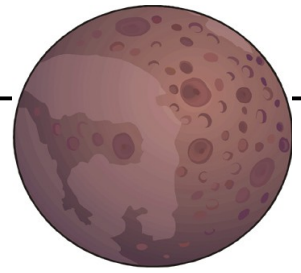
Planets and Dwarf Planets

by Shauna Hutton

Write true or false for each statement.

- _____ 1. Both planets and dwarf planets revolve around the Sun.
- _____ 2. Dwarf planets can be any shape except round.
- _____ 3. Dwarf planets do not clear the neighborhood around its orbit.
- _____ 4. Dwarf planets are not satellites.
- _____ 5. A planet's path around the sun is called an orbit.
- _____ 6. Pluto is larger than Eris.
- _____ 7. Jupiter and Saturn are inner planets.
- _____ 8. Earth and Mars are inner planets.
- _____ 9. In 2006, Pluto was reclassified as a dwarf planet.
- _____ 10. Satellites can be natural or man-made.
- _____ 11. There are a total of nine planets in our solar system.
- _____ 12. The Hubble Space Telescope is a satellite.

ANSWER KEY



Planets and Dwarf Planets

by Shauna Hutton

1. Name the four inner planets.

Mercury, Venus, Earth, and Mars

2. Name the four outer planets.

Jupiter, Saturn, Uranus, Neptune

3. Name the five dwarf planets.

Ceres, Pluto, Eris, MakeMake, and Haumea

4. According to the IAU, how is a planet different from a dwarf planet?

A dwarf planet has not cleared the neighborhood around its orbit.

5. According to the article, which object would **not** be considered a satellite? **c**

a. Earth's moon

b. Hubble Space Telescope

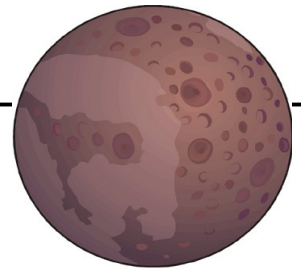
c. **Pluto**

d. Titan, Saturn's largest moon

6. What is an orbit?

The path upon which a planet travels around the sun.

Name: _____



Planets and Dwarf Planets

by Shauna Hutton

Write true or false for each statement.

- true** 1. Both planets and dwarf planets revolve around the Sun.
- false** 2. Dwarf planets can be any shape except round.
- true** 3. Dwarf planets do not clear the neighborhood around its orbit.
- true** 4. Dwarf planets are not satellites.
- true** 5. A planet's path around the sun is called an orbit.
- false** 6. Pluto is larger than Eris.
- false** 7. Jupiter and Saturn are inner planets.
- true** 8. Earth and Mars are inner planets.
- true** 9. In 2006, Pluto was reclassified as a dwarf planet.
- true** 10. Satellites can be natural or man-made.
- false** 11. There are a total of nine planets in our solar system.
- true** 12. The Hubble Space Telescope is a satellite.