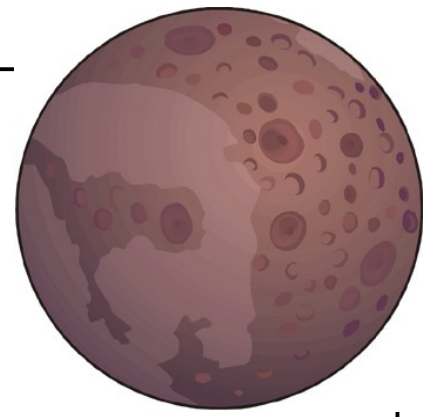


Name: \_\_\_\_\_

# 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, Neptune, and Uranus).

The International Astronomical Union (IAU) created a new definition of what a planet is. According to the IAU, a planet must meet the following criteria:

- is in orbit around the Sun
- is nearly round in shape
- has cleared its orbit of other objects
- 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 argued that Pluto and Eris should be considered dwarf planets. Astronomers agreed on a new definition of dwarf planets.



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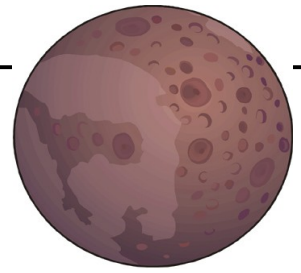
Dwarf planets are similar to planets except they don't clear their orbit like planets do. The IAU defines a dwarf planet as an object in space that:

- 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

A red-bordered rectangular banner. On the left is a cartoon superhero character with a red suit and blue cape, flying and holding a green gift box. To the right of the character, the word "PREVIEW" is written in large, bold, red letters with a black outline. Below "PREVIEW" is the text "Please log in or register to download the printable version of this worksheet." in a smaller black font.

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4. Accord

\_\_\_\_\_  
\_\_\_\_\_

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

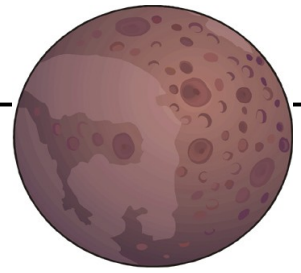
- a. Earth's moon
- c. Pluto

- b. Hubble Space Telescope
- d. Titan, Saturn's largest moon

6. What is an orbit?

\_\_\_\_\_  
\_\_\_\_\_

Name: \_\_\_\_\_



# Planets and Dwarf Planets

by Shauna Hutton

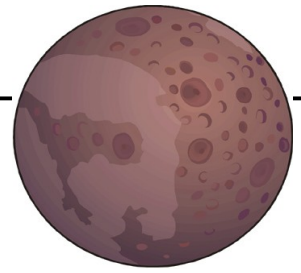
Write true or false for each statement.

- \_\_\_\_\_ 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.



- \_\_\_\_\_ 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. Accord

A dwarf

5. Accord

c

c. Pluto



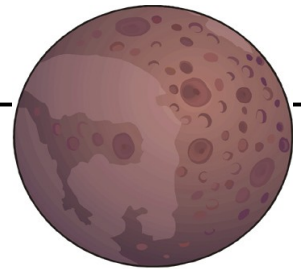
c

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

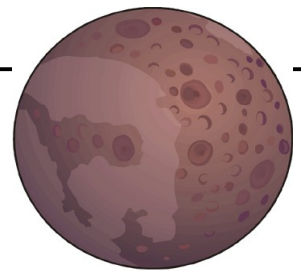
by Shauna Hutton

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 pl
- false** 6. Plut
- false** 7. Jup
- 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.



Name: \_\_\_\_\_



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## Planets and Dwarf Planets

by Shauna Hutton

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International

<http://www.ic>

<https://www.i>



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<http://www.iau.org/public/naming/#planetary>

<http://www.iau.org/public/pluto/>

Absolute Astronomy website:

[http://www.absoluteastronomy.com/topics/Natural\\_satellite](http://www.absoluteastronomy.com/topics/Natural_satellite)