



Your Guide to the Universe!

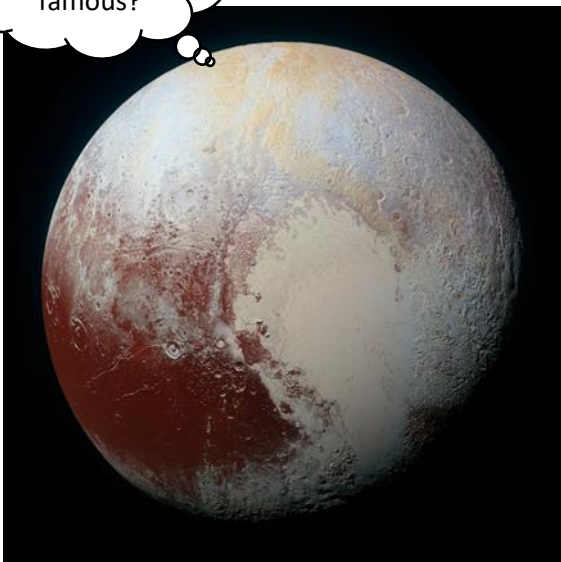
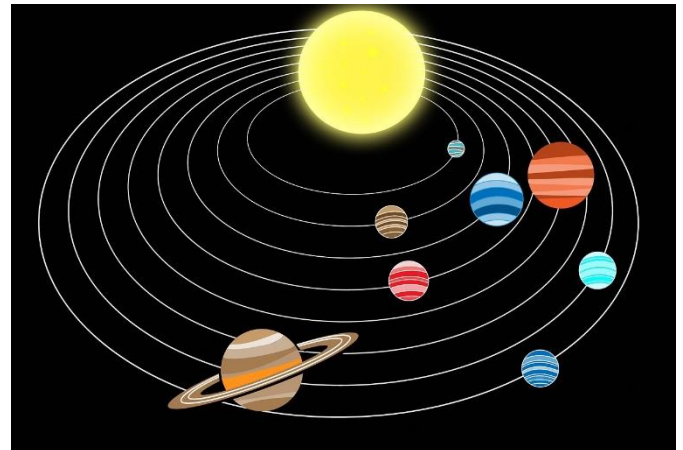
Fill in the blanks to review important features of the observable universe. Need a hint? Check the word bank.

A _____ is a special kind of theatre that lets us view objects in outer space.

Our _____ has eight planets. The four inner planets are small and rocky: _____, _____, _____, and _____. We live on _____, the third planet from the _____. The four outer planets are larger, nicknamed the _____ . These four planets are: _____, _____, _____, and _____.

In order to be a planet, an object must have three certain features:

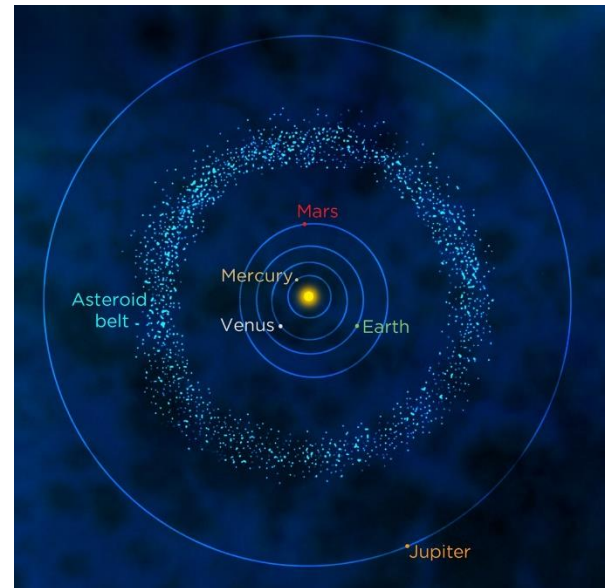
1. The object must orbit a _____.
2. The object must have enough _____ so that its gravity squeezes it into a _____.
3. The object's gravity must _____ other objects from its orbit.



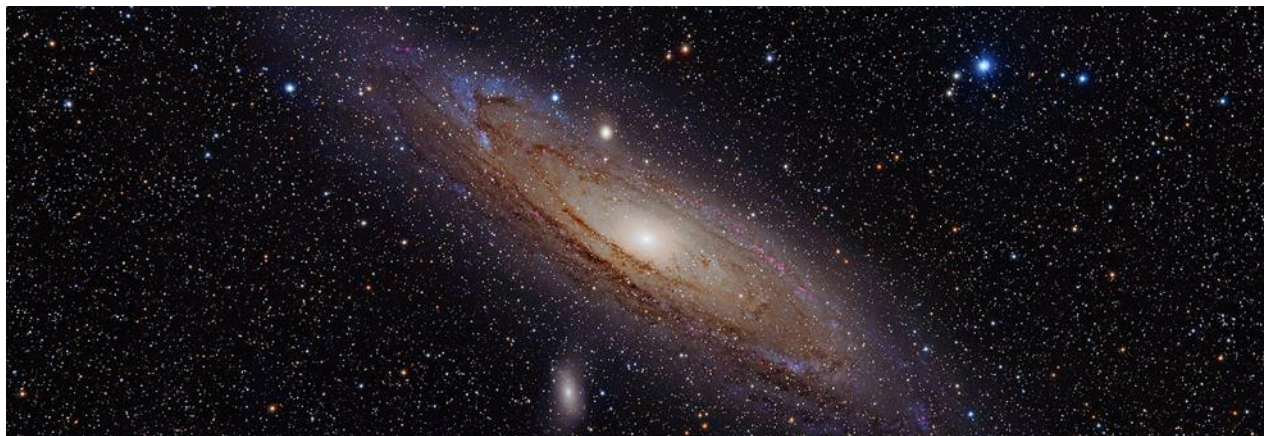
There are also objects orbiting the Sun that do not meet the definition of a planet, called _____. The most famous of these is _____, but there are others called Ceres, Eris, Makemake, and Haumea.

Pluto orbits beyond Neptune, in a part of the solar system called the _____, and even farther out on the edge of the solar system is the _____. Large bodies of ice and rock called _____ come from these areas and melt and freeze and they orbit the Sun.

Between the orbits of Mars and Jupiter, there are millions of rocky objects called _____. Some of these can be huge bodies of rock, but many of them are smaller than your hand! A piece of rock or metal that enters Earth's atmosphere is called a _____, and if it hits the ground, it becomes a _____.



Our Sun isn't the only star. A collection of billions of stars is called a _____, and there are billions of galaxies in the entire _____. Astronomers estimate that in all the galaxies across the observable universe, there are more than 16 septillion stars. That's 16,000,000,000,000,000,000,000,000!!!



Word Bank (some words will be used more than once):

- | | | | |
|---------------|-------------|--------------|----------|
| Asteroids | Jupiter | Neptune | Star |
| Clear | Kuiper Belt | Oort Cloud | Sun |
| Comets | Mars | Planetarium | Universe |
| Dwarf planets | Mass | Pluto | Uranus |
| Earth | Mercury | Saturn | Venus |
| Galaxy | Meteor | Solar system | |
| Gas giants | Meteorite | Sphere | |