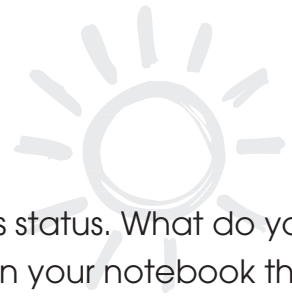




The Outer Planets



1. Pluto used to be considered an outside planet but has since lost its status. What do you know about this? Do you have an opinion on it? Write a response in your notebook that answers these questions. Make some predictions about the reason why Pluto is no longer classified as a planet any more.
2. For each of the words listed below, find a synonym from the word bank. Remember that a synonym is a word that has the same meaning.

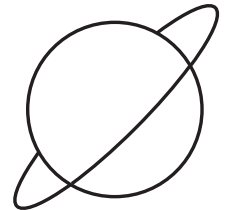
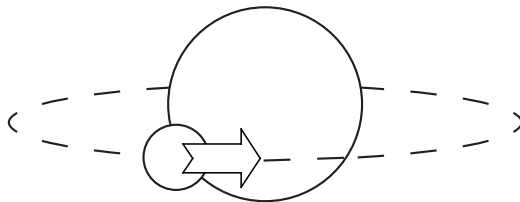
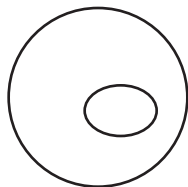
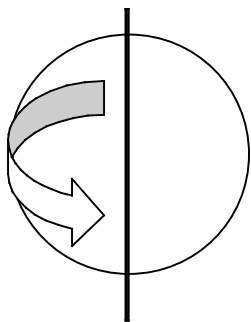
- a) zone _____
- b) belt _____
- c) giant _____
- d) gas _____
- e) dwarf _____
- f) orbit _____
- g) rotate _____
- h) geyser _____
- i) spot _____

Word Bank

little	area
band	spin
hoop	encircle
vapor	mark
huge	spring

3. Label the diagrams below with terms from the following list:

rotate
orbit
ring
spot



- a) _____ b) _____ c) _____ d) _____



The Stars



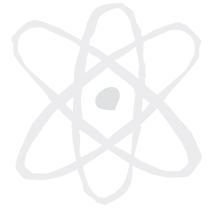
Scientists estimate that there are *trillions* of stars in the universe. You could probably see about 3,000 of them on a clear night if you live in the country. Did you know that stars have a **life cycle**, just like living things? They are born, they grow up, and then they die. A star begins as a cloud of gas and dust, called a **nebula**. As the cloud moves around, it picks up more and more gas and dust. Picture a snowball rolling down a hill and getting bigger and bigger. The star gets really big and hot; eventually it runs out of gas and burns out. The burnt out star will blow up, shrink or go cold. This whole cycle can take billions of years to happen.



Why can people who live in the country see more stars than people who live near a city?

There are many types of stars. The **Sun** is a star called a **yellow dwarf**. It may seem funny to think of the Sun as a “dwarf” because it seems so much bigger than other stars. Did you know that the Sun is actually much smaller than most stars? It just looks bigger because it is closer to the Earth. Except for our Sun, stars are not part of our solar system because they are so far away. They are part of the **universe**.

Blue stars are much bigger than yellow stars, so they are called **blue giants**. They are very bright and very hot. When they die, they grow larger and larger and then explode into a **supernova**. Supernovas are so bright that they can be seen from very far away. There are even bigger stars than blue giants. They are called **super giant stars**. The largest one you can see with your bare eyes is **Betelgeuse**. It is 700 times bigger than the Sun.

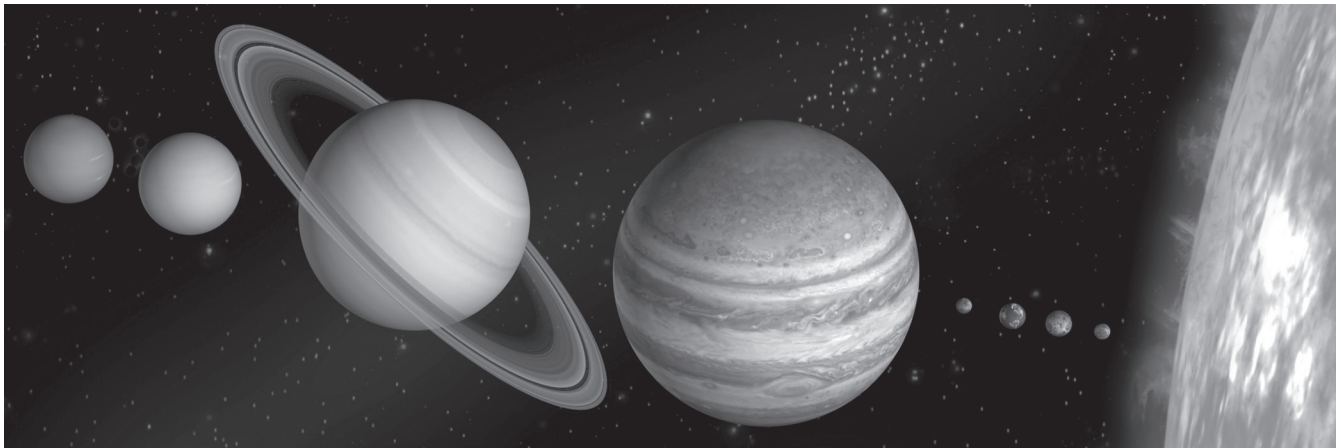


Build It!

SOLAR SYSTEM MODEL

Create a model of the solar system that shows all of the planets in relation to the Sun, according to their size and position. There are a few ways that you can do this.

- 1) Create a diorama - Paint the inside of a shoebox black and stand it on its side. Make planets using plasticine and hang them with thread from the top of the box.
- 2) Create a mobile - Use a cardboard circle as a base for your mobile. Paint Styrofoam balls to represent the planets, and then hang them through cut-out circles in the base.
- 3) Create a model - Use straws or skewers to connect painted Styrofoam balls at appropriate distances from each other.
- 4) Your own idea



Prepare an oral presentation on your model to deliver to the class for your presentation.