

# In Our Corner of Space

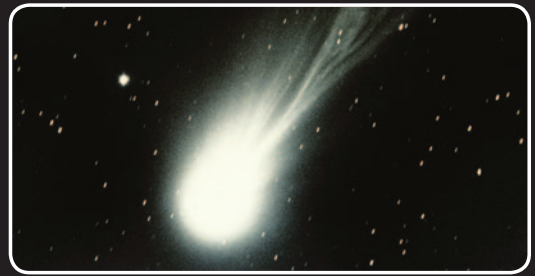
You are familiar with Earth, the sun, and the moon. What are some other objects that are a part of the solar system?

**Active Reading** As you read this page, circle the name of a smaller object in the solar system.

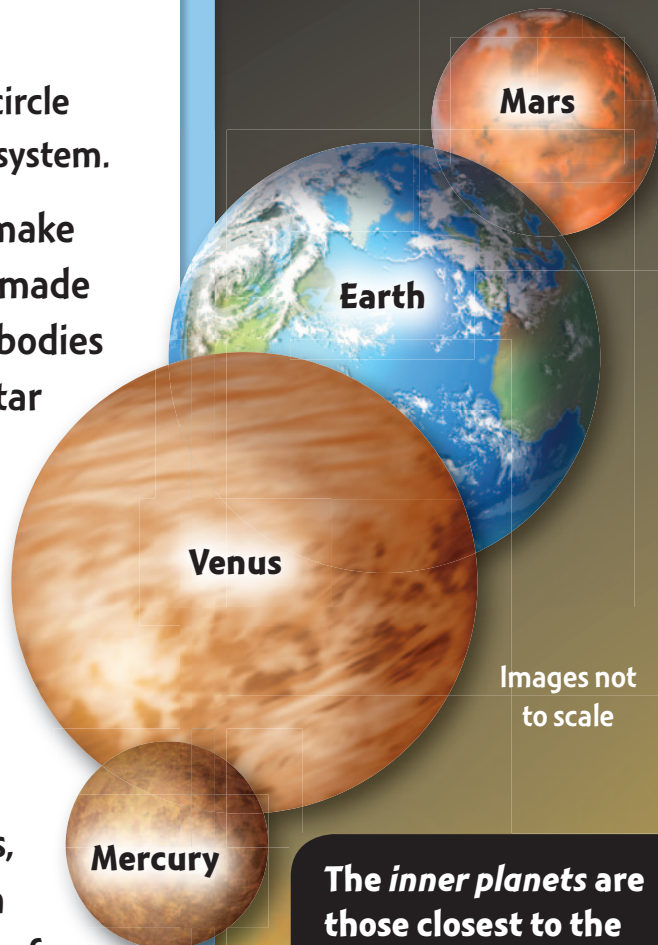
Earth and millions of other objects make up our solar system. A **solar system** is made up of a star and the planets and other bodies that revolve around it. The sun is the star at the center of our solar system.

Our solar system has eight planets. In distance from the sun, they are Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus, and Neptune. A **planet** is a large round body that revolves around a star in a clear orbit.

The solar system has smaller objects, too. A *comet* is a ball of rock and frozen gases. Astronomers think that trillions of comets orbit the sun in areas at the edge of the solar system.

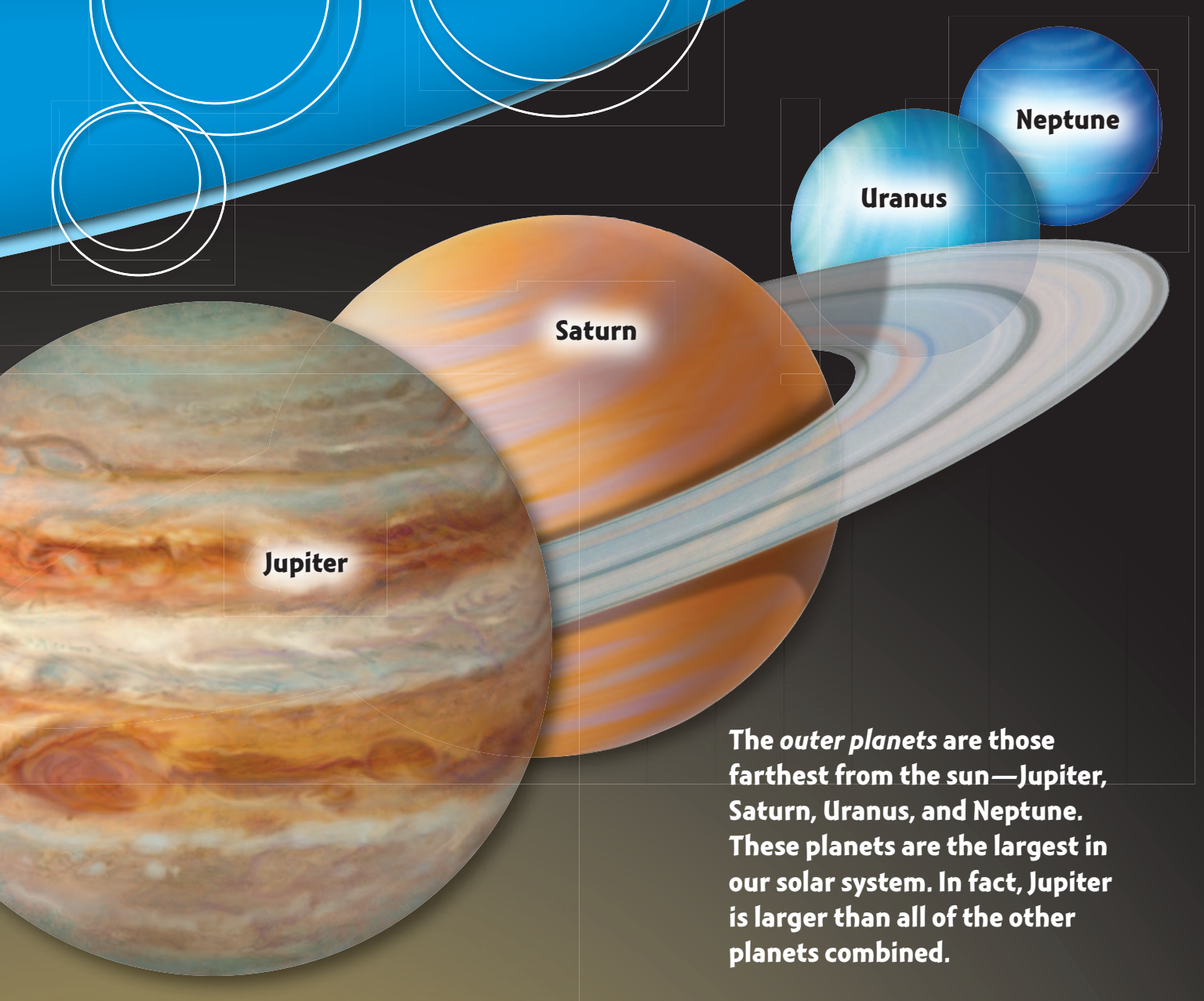


As a comet approaches the sun, the sun's heat turns the comet's frozen parts into gas. This gas may look like a fiery tail streaming away from the sun. The tail of a comet can be much longer than the comet itself.



Images not to scale

The *inner planets* are those closest to the sun—Mercury, Venus, Earth, and Mars. Earth is the largest and densest of the inner planets.



The *outer planets* are those farthest from the sun—Jupiter, Saturn, Uranus, and Neptune. These planets are the largest in our solar system. In fact, Jupiter is larger than all of the other planets combined.

## Identify the Planets and Their Positions

Draw the sun and planets. Be sure the planets are in their correct positions in relation to the sun. Identify each planet with labels.

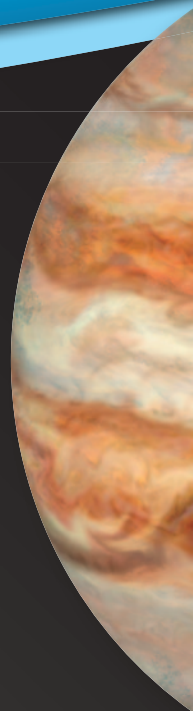
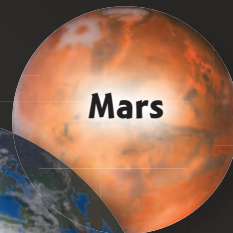
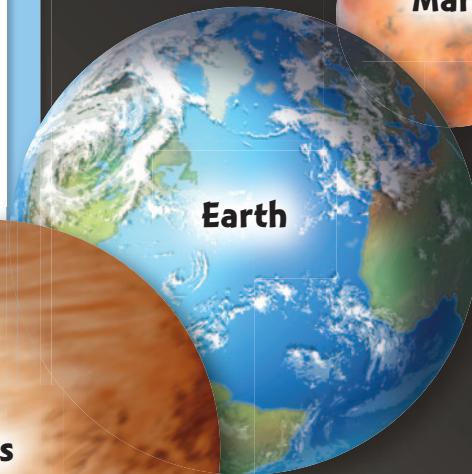
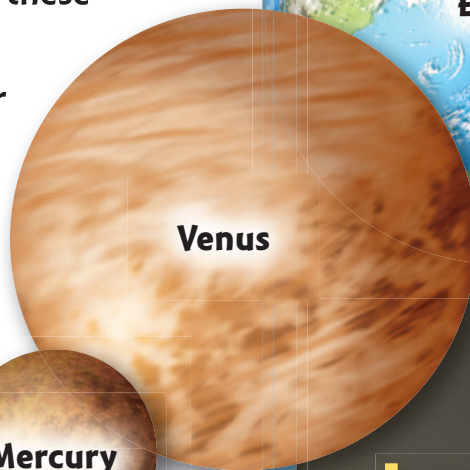
# Planets Near and Far

The solar system's planets are divided into two groups. How are the planets in each group different?

**Active Reading** As you read these pages, underline phrases or sentences that compare inner and outer planets.

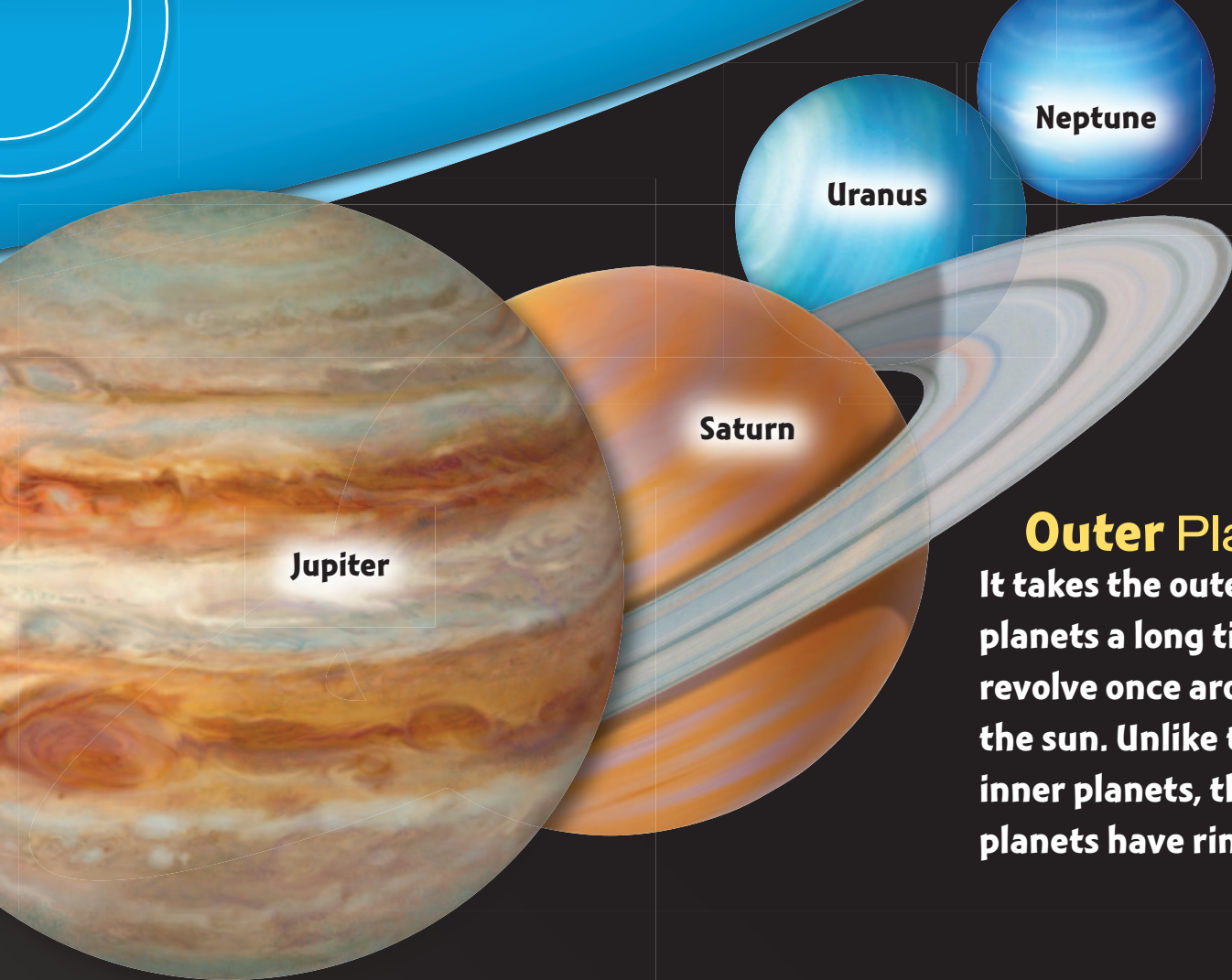
The inner planets are the smallest and warmest planets in our solar system. They have hard surfaces made of rock. The inner planets revolve around the sun more quickly than the outer planets.

The outer planets are giant balls of cold gases. These planets are larger and do not have a hard surface like the inner planets. They rotate quickly, which makes for a short day.



## Inner Planets

The inner planets revolve around the sun more quickly than the outer planets. The inner planets are the only planets where probes from Earth have landed.



Jupiter

Saturn

Uranus

Neptune

## Outer Planets

It takes the outer planets a long time to revolve once around the sun. Unlike the inner planets, the outer planets have rings.

## Do the Math!

### Calculate Distance

Mercury is the closest inner planet to the sun. Jupiter is the closest outer planet to the sun.

If Mercury is 58 million km from the sun and Jupiter is 778 million km from the sun, how much

farther from the sun is Jupiter than Mercury?

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