



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

# The Asteroid Belt

The asteroid belt is a special area in our solar system filled with thousands of rocky objects called asteroids. It's located between the planets Mars and Jupiter. The asteroid belt is a bit like a huge space neighborhood where all these rocks orbit the Sun together. Let's learn more about this fascinating region of space!

## What Are Asteroids?

Asteroids are chunks of rock and metal that travel around the Sun. They come in different shapes and sizes, and most are much smaller than planets. Some asteroids are as tiny as a pebble, while others are as large as a small city! The asteroid belt is filled with these rocks, but they are spread out, so spacecraft can safely travel through it.



Artist's drawing of asteroid belt

## Why Do We Have an Asteroid Belt?

A long time ago, the pieces in the asteroid belt might have come together to form a planet. But because of the strong gravity from Jupiter, the pieces couldn't stick together. Instead, they stayed in smaller chunks, which became asteroids. The asteroid belt has been there for billions of years!

## Ceres: The Biggest Object in the Belt

The largest object in the asteroid belt is Ceres. Ceres is a special type of object called a dwarf planet. It's the only dwarf planet in the asteroid belt, and it's big enough to be round, unlike many smaller asteroids. Ceres was the first dwarf planet visited by a spacecraft, the Dawn mission, which helped scientists learn more about this icy, rocky world.

## Exploring the Asteroid Belt

Scientists are very interested in studying the asteroid belt because it helps us learn more about how our solar system formed. The Dawn spacecraft visited both Vesta, one of the largest asteroids, and Ceres to take close-up pictures and study their surfaces. Some other space missions, like OSIRIS-REx, have also visited asteroids near Earth and brought back samples for study.



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### Fun Facts About the Asteroid Belt

The asteroid belt is shaped like a flat ring around the Sun.

Although there are many asteroids in the belt, they are spread far apart from each other.

If you put all the asteroids together, they would still be much smaller than Earth's moon.

Some asteroids have moons, and a few even have their own rings!

1. What is an asteroid? \_\_\_\_\_

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2. What do scientists think stopped the asteroids from forming a planet? \_\_\_\_\_

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Create and answer a questions about the asteroid belt.

question: \_\_\_\_\_

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answer: \_\_\_\_\_

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