

What are asteroids?

- They are formations of usually rock, iron, nickle and/or cobolt.
 - After an asteroid hits the atmosphere it is then considered as a meteor or a meteorite.
 - Their size ranges from the smallest studied asteroid of 2 meters, for up to 940 kilometers in diameter.
 - They are leftovers from the formation of our solar system and they orbit the sun in an elliptical pattern.
 - They rotate erratically and revolve around the sun

- In the surface of asteroids can be seen craters
- The surfaces of most asteroids are thought to be covered in dust
- There are different shapes and sizes
- Sometimes asteroids can have moons and other asteroids revolving around them
- Asteroids that are similar sized can be orbiting each other
- There is evidence that asteroids have ice underneath their surfaces

Asteroids near planets

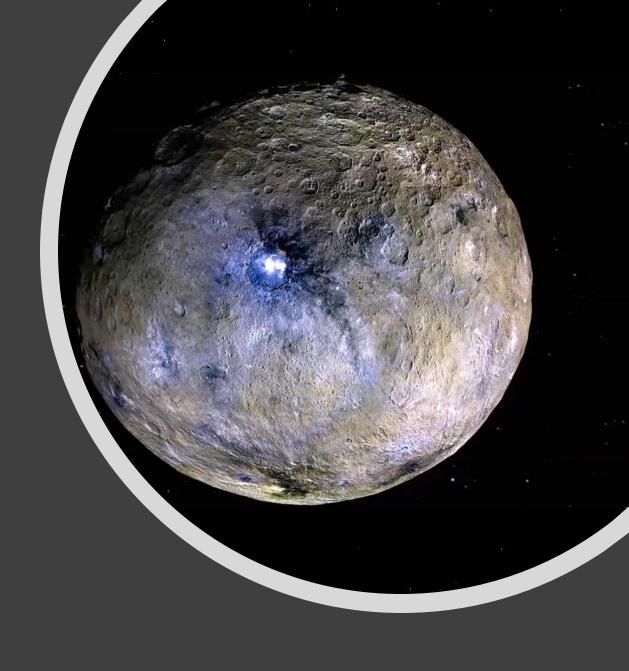
- Some of the moons of the planets in the solar system used to be asteroids.
- Many planets have asteroids revolving around them such as Jupiter, Saturn, Uranus, Neptune and Mars
- There are also asteroids flying past Earth (NEO=Near Earth Objects) but the chance of a disasterous collision is almost non-existent.



Well known asteroids

Ceres:

- Diameter: 940 kilometers
- Constitution: Rock, ice and dust
- It's now listed as a dwarf planet and it's largest asteroid in our solar system
- It's located between Mars and Jupiter
- Giuseppe Piazzi discovered Ceres in 1801
- Covers about 25% of the asteroid belts mass
- Named before a Roman goddess
- Ceres doesn't have atmosphere



Well known asteroids

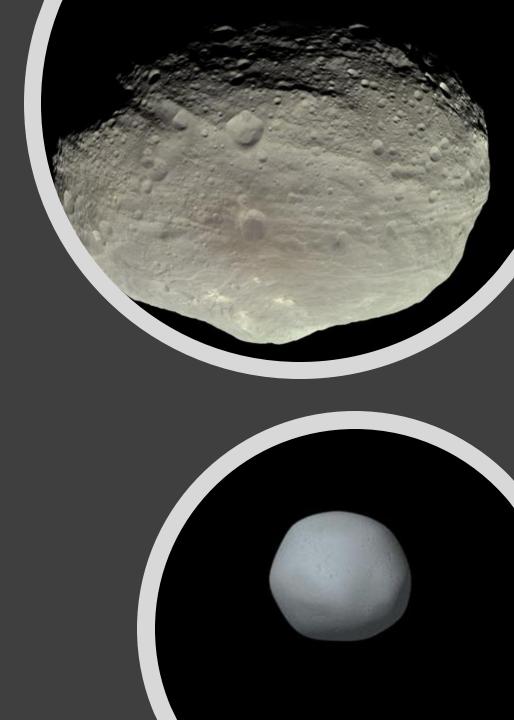
4 Vesta

- Diameter: 525 kilometers
- Constitution: Mostly rock, basaltic crust
- It's the brightest asteroid
- -Contributes 9% of the total mass of the asteroid belt

2 Pallas

- -Diameter: 512 kilometers
- -Constitution: Ice, rock
- Pallas is actually a protoplanet like Vesta too

There is also other well known asteroids like Hygiea, Intermania, Europa and Davida

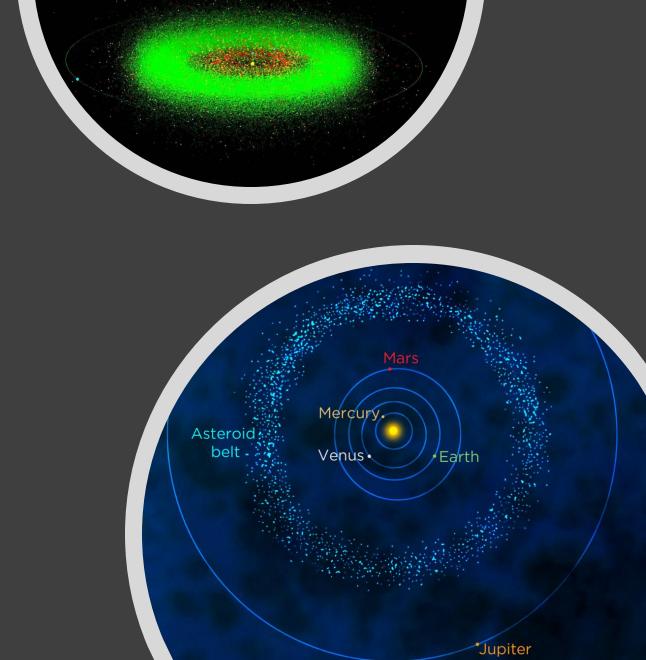


Asteroid types

- The C-type as known as **carbonaceous asteroids** are grayish, 75% asteroids belongs to this group. They consist of clay and stony silicate
- The S-type as know as **silicaceous asteroids** are green to red coloured, 17% of asterdois belong to this group. They are made of silicate materials and nickel-iron
- The M-type as known as **metallic asteroids** are reddish in color, make up most of the rest of the asteroids, and dwell in the middle region of the main belt and they are made of nickle-iron.
- V-type HED meteorites have a basaltic and volcanic crust.

Asteroid belt

- The asteroid belt is an area in our solar system that separates the rock and gas planets from each other, and it's located between mars and jupiter.
- The asteroids in the asteroid belt were formed from the leftover pieces of rock and dust that were pulled together by the gravitational force of the sun in the early times of the solar system.
- There has also been speculation about the asteroid belt once being a planet that was hit by a meteor shower which broke it apart.





Sources

- https://en.wikipedia.org/wiki/Asteroid 25.8
- https://www.space.com/51-asteroids-formation-discovery-andexploration.html 26.8
- http://solarviews.com/eng/vesta.htm 26.8
- https://www.google.fi/search?q=asteroid+types&oq=asteroid+types&aqs=chrome.
 .69i57j0l5.2998j0j4&sourceid=chrome&ie=UTF-8 27.8
- https://solarstory.net/asteroids/largest-asteroids 30.8
- https://solarsystem.nasa.gov/planets/dwarf-planets/ceres/overview/ 30.8
- https://www.space.com/7389-asteroid-planet-wannabe.html 30.8