Astronomy

The Study of Stars, Galaxies, Planets, and More
The Solar System
The Sun is a star.

Center of the Solar System

109 x bigger than Earth

~12,000°F
Special telescopes can look at the Sun.

They are called “solar telescopes.”
The Sun can have dark areas called sunspots.
The Inner Planets

- Mercury
- Venus
- Earth
- Mars
The Outer Planets

- Jupiter
- Saturn
- Uranus
- Neptune
The Outer Planets

- Jupiter
- Saturn
- Uranus
- Neptune
Lots of planets have moons.

Two of these objects are NOT moons.

- Ganymede: 5262 km
- Titan: 5150 km
- Mercury: 4880 km
- Callisto: 4806 km
- Io: 3642 km
- Moon: 3476 km
- Europa: 3138 km
- Triton: 2706 km
- Pluto: 2300 km
- Titania: 1580 km
Other things in the solar system:

Asteroids
Asteroids are not potatoes.
Other things in the solar system:

Comets
Comets have tails.

Comets are like dirty snowballs.
Stars
Stars are like the Sun but very far away.
Blue stars are hot.

Red stars are cool.
The Pleiades is a young star cluster, not a constellation.
This an old star cluster called M80.
Clouds of gas and dust in space are called “nebulae”.

Horsehead Nebula and Flame Nebula
Stars are born in these nebulae.

Eagle Nebula

Orion Nebula
These nebulae are from dying stars.

Cat’s Eye Nebula

Butterfly Nebula
Galaxies
Stars and dust make up galaxies.

Our galaxy is the Milky Way.
This is what the Milky Way Galaxy looks like if you didn’t have the Earth in the way.
A model of the Milky Way.

Milky Way rotates this way.
This is the Whirlpool Galaxy.

It also has spiral arms.
Galaxies come in different types

Elliptical  Spiral  Irregular
Galaxies come in groups called clusters. This is the Virgo Cluster.
Groups of galaxies form a 3D web in the Universe.