

GLOSSARY



Here are a few useful definitions to help you understand the activities.



Globular Cluster. Credit: Rémi Lacasse.

Star Cluster: A star cluster is a grouping of stars in our galaxy. The stars in the cluster are really close together, having formed in the same region of space. Star clusters are beautiful objects, visible through binoculars or a telescope.

Light-year: A light-year is a unit of distance. It is the distance light travels in one year. It is equivalent to approximately 10,000 billion kilometres.



Ida Asteroid. Credit: NASA.

Asteroid: An asteroid is a small object orbiting the Sun. Its small mass means it has an irregular shape, rather than the spherical form of planets and dwarf planets. Most, but not all, asteroids are found in the asteroid belt between the orbits of Mars and Jupiter. Asteroids are composed of rocks and metals. It is estimated that there are millions of asteroids in the Solar System.



Comet Hale-Bopp.
Credit: Thomas Collin.

Comet: A comet is a small object orbiting the Sun. All comets are composed of ice, which turns to gas as they approach the Sun. This phenomenon causes long tails of dust and gas to form behind the comet. There are billions of comets in the Solar System.

Constellation: A constellation is a group of stars that forms a recognizable pattern in the night sky. These patterns were imagined by humans and are not real celestial objects. Today, there are 88 internationally recognized constellations which we use as a reference system for finding way finding.



Stars in our galaxy.
Credit: NASA / STScI / AURA.

Star: A star is a giant ball of gas that emits a great deal of energy (light) thanks to nuclear fusion at its centre. The Sun is the only star in our Solar System, but it is one of 200 billion stars in our Milky Way galaxy.

Exoplanet: An exoplanet is a planet outside our Solar System. These planets orbit distant stars. Most of the stars we see at night have planets around them.



Spiral galaxy. Credit: Rémi Lacasse.

Galaxy: A galaxy is an immense grouping of stars. In addition to stars, galaxies contain nebulae, star clusters, and billions of other objects such as planets. There are many different types of galaxies, but the best known are spiral galaxies.



Io, moon of Jupiter. Credit: NASA.

Moon or Natural Satellite: A natural satellite is an object that orbits a planet. The Earth's natural satellite is called the Moon (with a capital M), while other moons are found around other planets. There are also moons around dwarf planets, such as Pluto, and around some asteroids. Note that some moons are larger than planets, and some even have atmospheres.



Orion Nebula.
Credit: Phillippe Moussette.

Nebula: A nebula is a cloud of gas and dust in space. Some nebulae are star-forming regions, while others are the remnants of a dead star. On camera, nebulae are stunning, colourful pockets of space. To the naked eye or with a small instrument, they simply appear as blurred specks in the sky.

Orbit: An orbit is the curved path that an object, like a planet, moon, or satellite, follows as it moves around another object in space, usually due to gravity. For example, the Moon orbits the Earth, while the Earth orbits the Sun.



Saturn. Credit: NASA.

Planet: A planet is an object orbiting a star, in our case the Sun. In addition, this object must be large enough (massive) to have a spherical shape, and it must not share its orbit with (many) other large objects. There are 8 planets in our solar system: Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus, and Neptune.



Pluto. Credit: NASA / JHUAPL / SwRI.

Dwarf Planet: A dwarf planet is an object orbiting the Sun. Like a planet, this object must be large enough to have a spherical shape. However, it can share its orbit with other large objects. It is this latter criterion that has led Pluto to be considered a dwarf planet instead of a planet since 2006. In our solar system, there are currently five objects in this category (Pluto, Ceres, Eris, Haumea and Makemake), but more could be discovered.

Revolution: A revolution is the complete orbit of one object around another, i.e. a planet travelling all the way around the Sun. The Earth completes one revolution in one year —which is how we define a year.

Rotation: Movement of a celestial body that turns its own axis. For example, the Earth's rotation on its axis takes 24 hours —which is how we define a day.