

Deep Space Dictionary from *A Child's Introduction to the Night Sky*

Asteroid

Small chunks of rock and metal that float through space like mini-planets.

Astronomy

The study of the sky and all the objects and forces up there. People who study the stars are called astronomers.

Binary Star

Two stars that orbit each other and often look at a distance like one star.

Black Dwarf

A white dwarf star that has burned up all its fuel and become a cold lump of the element carbon.

Black Hole

A tiny, dense point with very strong gravity formed by the death of a large star.

Blue Giant

A very hot, very bright star in the middle of its life cycle.

Brown Dwarf

A cluster that never gathered enough dust and gas to become a shining star.

Comet

A ball of ice and rock hurtling through space in orbit around the sun. A “tail” appears on a comet when it is close to the sun.

Constellation

A group of stars that has become associated with (and named after) an object, animal or character, such as The Great Bear or Leo the Lion. Constellations, and the stories behind them, make the stars easier to find and more fun to remember.

Diameter

The width of a round object (like a star or planet) measured in a straight line from one side to another, passing through the object’s center.

Dwarf Planet

A body that orbits a star, is mostly round, but hasn’t cleared all of its orbital path.

Galaxy

A great collection of stars held together by gravity.

Light-year

The distance light travels in one year, or about 5.8 trillion miles (9.3 tri llion kilometers).

Meteor Shower

A period when the Earth passes through an area of space with lots of floating rocks and other objects. The result is than an unusually high number of meteors often can be seen.

Meteor

A falling object from space that leaves of trail of fire in the sky as it plunges toward the ground. These are often called “shooting stars” or “falling stars” because that’s what they look like—but they are not actually stars.

Meteorite

A meteor that does not burn up in the atmosphere and hits the Earth’s surface.

Multiple Star

Three or more stars orbiting around each other.

Neutron Star

A dark ball of matter left over when a supernova isn’t massive enough to become a black hole.

Planet

A large ball of rock, metal or gas that circles around a star.

Prominence

An arc of gas blasting out from a sunspot.

Protostar

The stage in a star’s development when its dust and gasses are still coming together, before it begins to shine.

Red Giant

A star in the middle of its life cycle that is cooler and dimmer than a blue giant.

Solar Eclipse

The momentary blocking of the Sun’s rays on Earth caused by the Moon moving directly between the Sun and the Earth.

Solar System

The system of planets and other objects orbiting around our Sun. (“Solar” means “relating to the Sun.”)

Star

A huge ball of burning gas in space, sometimes so large that it makes our own Sun look like a pin-prick in comparison.

Sunspot

A dark, cooler spot on the surface of the Sun that appears, grows, and then slowly shrinks away.

Supergiant

The biggest of the red giant stars.

Supernova

A star whose life ends in a fast, spectacular explosion rather than becoming a dwarf star

Telescope

A special instrument, made with lenses and mirrors, that helps us see faraway objects such as stars and planets by making them look closer.

Universe

The scientific word for the great, vast area where everything we know of exists. The universe is sometimes referred to as the cosmos.

White Dwarf

A star late in its life cycle that is still burning but is shrinking and less bright.

Yellow Dwarf

A star of average temperature and size in the middle of its life cycle.