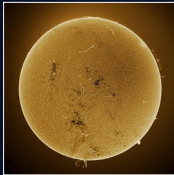




# UNIVERSE DEFINED

Find answers to your astronomical questions with this guide. Many of the space-related words and phrases that you may encounter in this exhibit are defined here. Brush up on your astro-speak to teach a friend something new, or have a conversation with Chabot volunteers and staff. How many of these words can you find?



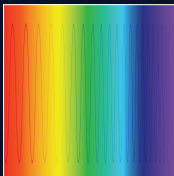
**CHROMOSPHERE**  
The lowest layer of the Sun's atmosphere.



**COMET**  
A natural body composed of rock and ices, typically a few kilometers in diameter. When a comet passes close to the Sun some of its ices are heated and become gaseous, forming its familiar ion tail, and often a second tail of dust left behind in the comet's path.

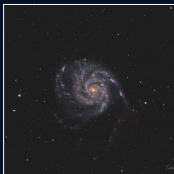


**CORONA**  
The Sun's outer atmosphere.



**ELECTROMAGNETIC SPECTRUM**  
The entire range of wavelengths of electromagnetic radiation, including radio waves, microwaves, infrared light, visible light, ultraviolet light, X-rays, and gamma rays.

**EXPOSURE (ASTROPHOTOGRAPHY)**  
The process of allowing light to shine on light-sensitive materials such as photographic films or plates or digital electronic chips to form an image.



**GALAXY**  
A large collection of stars, gas, dust, and dark matter bound together by gravity. The smallest galaxies contain only a few hundred thousand stars, while the largest contain trillions. The three general types of galaxies are elliptical, spiral, and irregular.



**MOON**  
A natural body that orbits a planet. Also called a "natural satellite".



**NEBULA**  
A cloud of gas and dust in space. There are several types.



**NEBULA, DARK**  
An interstellar cloud of dust that blocks the light of stars and other objects.



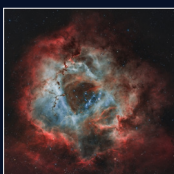
**NEBULA, EMISSION**  
An interstellar cloud of gas that emits light, often energized by ultraviolet radiation from nearby or embedded stars.



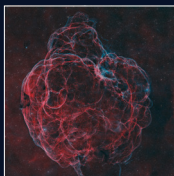
**NEBULA, PLANETARY**  
An expanding shell of glowing gas expelled by a star late in its life.



**NEBULA, REFLECTION**  
An interstellar cloud of dust that reflects light from nearby or embedded stars.



**NEBULA, STAR-FORMING**  
A dense interstellar cloud of gas and dust that collapses to form stars.



**NEBULA, SUPERNOVA REMNANT**  
An expanding cloud of gas blasted into space by the violent explosion of a massive star at the end of its life.

**OPTICAL FILTER (ASTROPHOTOGRAPHY)**

A special window that absorbs certain colors of light while allowing others to pass through, used either to control how much light or which colors/ wavelengths of light enter a telescope or camera.



**PHOTOSPHERE**

The visible “surface” of the Sun.



**PLANET**

A natural body that orbits a star, is large enough for gravity to shape it into a sphere, is the dominant body in its orbital zone, and is not large enough for nuclear fusion to take place in its core.



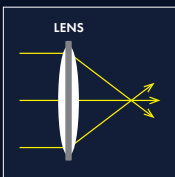
**PLASMA**

The fourth state of matter, where the atoms of a gas are stripped of one or more electrons, making them electrically charged. The Sun’s hot gases are an example of plasma.



**REFLECTOR, REFLECTING TELESCOPE**

A telescope that uses a curved mirror to collect and focus light.



**REFRACTOR, REFRACTING TELESCOPE**

A telescope that uses a transparent convex lens to collect and focus light.

**REPRESENTATIVE COLOR (ASTROPHOTOGRAPHY)**

A color chosen in the post-processing of an image to represent the brightness of a specific wavelength or range of wavelengths.



**STAR**

A huge ball of gas held together by gravity that is large enough for nuclear fusion to take place in its core.



**STAR CLUSTER, GLOBULAR**

A collection of hundreds of thousands to millions of very old stars bound together by mutual gravitational attraction.



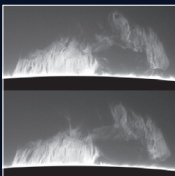
**STAR CLUSTER, OPEN**

A group of a few dozen to a few thousand young stars that formed together in a star-forming nebula and are bound together by mutual gravitational attraction.



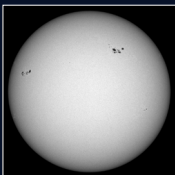
**SUPERNOVA**

The explosive death of a very massive star or stellar remnant.



**SOLAR PROMINENCE**

An eruption of gas from the chromosphere of a star shaped by solar magnetic activity.



**SUNSPOT**

A region of intense magnetic activity on the Sun’s photosphere that is cooler and darker than the surrounding material.

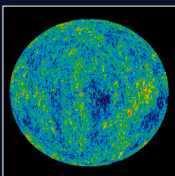


**SOLAR ECLIPSE**

When the Moon’s shadow is cast on the Earth’s surface.

**LIGHT YEAR**

The distance that a light wave travels in one year, or about 6 trillion miles. Used to measure distances between stars and galaxies.



**UNIVERSE**

The totality of space and time, along with all the matter and energy in it.

This guide is a collaborative effort between Chabot Space & Science Center and the Space Telescope Science Institute (STScI). Images on this guide are courtesy of local Bay Area astrophotographers, NASA, ESA, HST, JWST, SDO, Cassini, and Apollo

Scan the QR code or visit [tinyurl.com/UniverseUnveiled](https://tinyurl.com/UniverseUnveiled) to explore more astronomy resources.



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