absorption line the dark lines seen in a light spectrum; indicates that light is being absorbed at that wavelength (IG)

accretion sticking together (IG)

altitude the distance above Earth’s surface (IG)

asteroid a small, rocky object that orbits the Sun (SRB, IG)

asteroid belt a region between Mars and Jupiter with small chunks of matter orbiting the Sun (SRB)

astronomical unit (AU) the average distance between Earth and the Sun, about 150 million kilometers (SRB, IG)

atmosphere a layer of gases that surround an object held in place by gravity (SRB, IG)

axis an imaginary axle that a planet spins on (SRB, IG)

beam spreading the way a light beam covers a larger area when it hits a surface at an angle (IG)

big bang theory a theory that one explosion created the universe (SRB)

bird’s-eye view a view of Earth’s surface looking downward from a height (IG)

black hole an extremely dense object that can form after a star goes supernova (SRB)

circumference the distance around a circle (SRB)

comet a chunk of ice, dust, and rock material a few kilometers in size (SRB, IG)

complex crater a crater with central peaks and ejecta thrown out in long rays (SRB, IG)

cosmos the universe (SRB)

crater a change in land created by an impact (SRB, IG)

crescent Moon the shape of the Moon just after and just before the new Moon phase (SRB, IG)

diameter the distance from one point in a circle to an opposite point in the circle (SRB)

dwarf planet an object that orbits the Sun and is big enough to be round but doesn’t clear away all objects near its orbit (SRB)

ejecta the material displaced from the land when a crater is formed (SRB, IG)

electromagnetic spectrum the range of electromagnetic radiation arranged in order of energy level (SRB)
**elevation** the vertical distance or height above sea level  

**emission line** the bands of color seen in a light spectrum; indicates that light is being emitted, or produced, at that wavelength  

**emit** to give off  

**equator** the imaginary circle around Earth or a celestial object that is everywhere the same distance from the poles  

**equinox** a day of the year when the Sun’s rays shine straight down on the equator  

**exoplanet** a planet circling a star other than the Sun  

**first-quarter Moon** the phase that occurs halfway between the new and full Moon  

**flooded crater** a crater from a large impact that released magma from beneath the surface  

**frame of reference** the collection of objects, distances, and directions used to establish the location of something  

**full Moon** the phase of the Moon that occurs when the Moon is opposite the Sun as seen from Earth  

**galaxy** an enormous collection of tens of millions to hundreds of billions of stars, interstellar gas, and dust  

**gibbous** a Moon shape that is larger than a first or third quarter Moon but smaller than a full Moon  

**gravity** the force that causes two masses to attract each other  

**highlands** the oldest exposed areas of the Moon's surface, extensively cratered, chemically different, and higher in elevation than the maria  

**horizon** the imaginary line where the sky meets Earth or the ocean  

**impact** the action of one object hitting another; to strike something with force  

**Kuiper Belt** the region of the solar system beyond the orbit of Neptune; plutoids are located here  

**latitude** the angular distance north or south from Earth’s equator  

**light signature** spectrum; every substance has its own specific light signature  

**light-year (ly)** the distance light travels in 1 year. One ly is about equal to 9.5 trillion kilometers.  

**line of sight** the straight, unimpeded path taken by light from an object to an eye  

**location** an object’s position relative to other objects  

**longitude** the distance measured on Earth's surface east or west of the prime meridian
lunar eclipse when Earth is exactly between the Moon and the Sun, and the Moon passes through Earth’s shadow  (SRB, IG)

mare (plural maria) the dark surface of cooled magma in a flooded crater  (SRB, IG)

meteor a streak of light in the sky from gravel- and pebble-size meteoroids; also known as a shooting star  (SRB)

meteorite a piece of a meteoroid that hits the ground  (SRB)

meteoroid a small or medium-size piece of rock or metal from space  (SRB, IG)

Milky Way the name of the galaxy the Sun is a part of  (SRB)

Moon the Earth’s natural satellite  (SRB)

nebula (plural nebulae) a cloud of gas and dust in space between stars  (SRB, IG)

new Moon the phase of the Moon that occurs when the Moon is in the direction of the Sun as seen from Earth  (SRB, IG)

North Star the reference star pointed to by Earth’s North Pole  (SRB, IG)

orbit the path and length of time one object takes to travel around another object  (SRB, IG)

orbit radius the average distance from one object to the object it is orbiting  (SRB, IG)

orbital period how long it takes an object to orbit another object  (SRB, IG)

orrery a mechanical device that shows the relative positions and motions of planets as they orbit the Sun  (IG)

parallel continuing in the same direction and always the same distance apart  (SRB)

phase each different shape of the Moon  (SRB, IG)

planet an object that orbits a star and is massive enough for its own gravity to force it into a spherical shape  (SRB)

plutoid a type of dwarf planet that has an orbit beyond Neptune  (SRB)

point of view the position from which a visual observation is made  (IG)

ray a narrow beam of light from the Sun or an artificial light source; white lines that extend in all directions from some craters  (IG)

regolith the pulverized surface material of the Moon; also known as lunar soil  (IG)

revolution traveling around something  (SRB, IG)
**rille** a structure on the Moon's surface that looks like a canyon or streambed  
(SRB, IG)

**rotation** spinning on an axis  
(SRB, IG)

**satellite** an object orbiting a larger object  
(SRB)

**scaling factor** the ratio of the real size of an object to its modeled size  
(IG)

**season** a period of the year identified by changes in hours of daylight and weather  
(SRB, IG)

**simple craters** small, bowl-shaped craters with a fairly uniform blanket of ejecta distributed around the rim  
(SRB, IG)

**solar angle** the angle at which light passes through the atmosphere; measured from Earth’s surface  
(IG)

**solar eclipse** when the Moon passes exactly between Earth and the Sun  
(SRB, IG)

**solar energy** energy from the Sun  
(SRB)

**solar system** a region of space occupied by a system of objects, including the Sun and all things orbiting it  
(SRB, IG)

**solstice** a day of the year when Earth’s North Pole is leaning either toward the Sun or away from the Sun  
(SRB, IG)

**spectroscope** a tool used to study the spectrum of colors coming from a light source  
(SRB, IG)

**spectrum** wavelengths of light  
(IG)

**star** a large, hot ball of gas  
(SRB)

**star cluster** a group of stars held together by their mutual gravitational attraction  
(SRB)

Sun the star at the center of the solar system  
(SRB)

**supernova** an explosion that ends a star’s life  
(SRB)

**third-quarter Moon** the phase that occurs halfway between the full and new Moon  
(SRB, IG)

**transit** when one object appears to move across another object as seen from the perspective of an observer  
(SRB, IG)

**universe** the sum total of all things that can be observed or detected  
(SRB, IG)

**visible light** the spectrum of wavelengths that our eyes can detect, including red, orange, yellow, green, blue, and violet  
(IG)

**waning** getting smaller  
(SRB, IG)

**waxing** getting bigger  
(SRB, IG)