

## GLOSSARY

### A

**asteroid** fragment of rock that orbits the Sun (606)

**astronomical unit** average distance between the Earth and the Sun, approximately 149.5 million km (592)

### C

**coma** spherical cloud of gas and dust that surrounds the nucleus of a comet (607)

**comet** body of rock, dust, methane, ammonia, and ice that revolves around the Sun in a long, elliptical orbit (607)

### E

**earth-grazer** asteroid that orbits the Sun in an elongated ellipse that may pass close to the Earth and Sun (607)

**ellipse** oval whose shape is determined by two points within the figure (592)

**epicycle** small circular motion of the planets within their orbits proposed as an explanation for retrograde motion (591)

### F

**fireball** brilliant flash of light produced by a meteor that vaporizes quickly (608)

**focus** one of two points within an ellipse that determines the shape of the figure (592)

### G

**geocentric** Earth-centered (591)

### H

**heliocentric** Sun-centered (591)

### I

**inertia** tendency of a moving body to remain in motion or a stationary body to remain at rest until an outside force acts on it (593)

## GLOSSARY

**iron meteorite** type of meteorite made of iron, with a characteristic metallic appearance (609)

### J

**Jovian planet** any one of the first four outer planets—Jupiter, Saturn, Uranus, or Neptune—with properties similar to those of Jupiter (598)

### L

**long-period comet** comet with a period of several thousand or million years (608)

### M

**meteor** a bright streak of light caused when a meteoroid burns up in the Earth's atmosphere (608)

**meteor shower** phenomenon caused by the burning up of large numbers of meteoroids as they enter the Earth's atmosphere (608)

**meteorite** meteoroid or part of a meteoroid left after it hits the Earth's surface (609)

**meteoroid** small bit of rock or metal moving through the solar system left by a comet or produced by a collision between asteroids (608)

### O

**Oort cloud** spherical cloud of dust and ice surrounding the solar system that may contain as many as a trillion comets (608)

**orbit period** time required for a planet to make one revolution around the Sun (593)

### R

**retrograde motion** apparent periodic reversal in the motion of some planets as viewed from the Earth (591)

### S

**short-period comet** comet with a period of up to 100 years (608)

## GLOSSARY

**stony meteorite** most common type of meteorite, similar in composition to rocks found on the surface of the Earth (609)

**stony-iron meteorite** rare type of meteorite that contains both iron and stone (609)

### T

**terrestrial planet** any one of the four planets closest to the Sun—Mercury, Venus, Earth, and Mars—with properties similar to those of the Earth (594)

**Trojan asteroid** asteroid that orbits the Sun just ahead of or behind the planet Jupiter (607)