



GLOSSARY



- Abiotic** The nonliving parts of the environment
- Absorb** Take up or take in; *The sponge absorbs water well*
- Abundance** More than enough; a lot
- Acceleration** A change in speed (or velocity)
- Acid** A chemical that reacts easily with other substances and turns litmus paper red; less than 7 on the pH scale
- Adaptation** A feature of an organism that helps it meet a particular need in its natural habitat
- Adaptive radiation** The development of many different forms from a single group of organisms as they adapt to different environments
- Advantaged offspring** Offspring that have characteristics which help them survive better than others
- Advantageous characteristics** Characteristics that help an organism survive better than others
- Agriculture** Using land to get food or to feed animals for human consumption (livestock)
- Air mass** A large body of air that has the same characteristics throughout
- Allele** One of the forms of a gene that is found in pairs on a chromosome; *Some alleles are dominant over others*
- Alloy** A mixture of metals (and sometimes non-metals) which forms one metallic substance; *Brass is an alloy of zinc and copper*
- Analyze** Think about the different parts of a problem or situation to figure out how it is related to the whole.
- Asexual Reproduction** Reproduction that happens without sex; one organism creates one or more organisms
- Asteroid** An object made up of rock and metals which orbits the sun, mainly between Mars and Jupiter
- Atmosphere** The air surrounding a planet
- Atom** The smallest unit of a substance that has all of the properties of that substance
- Atomic number** The number of protons in an atom
- Atomic theory** A theory that says that all matter is composed of tiny indivisible and indestructible particles
- Bacteria** The kingdom of life which has no cell membrane or nucleus and is always unicellular
- Base** A chemical that reacts easily with other substances and turns litmus paper blue; greater than 7 on the pH scale
- Bias** An influence in an unfair way; *You are biasing my choice by telling me yours*
- Big Bang** The theory that the universe began suddenly from a tiny mass
- Biogeochemical cycle** A way that a chemical element or molecule moves through both the biotic ("bio-") and abiotic ("geo-") parts of an ecosystem

- Biology** The study of living things
- Biome** A region of the world that has a particular climate and unique plants and animals that live there
- Biotechnology** The study of the use of small organisms to help industrial processes
- Biotic** Anything that is alive
- Body cell** All of the cells in an organism not involved in reproduction
- Bond** An electrical force that links atoms together
- Brittle** Easily broken
- Carbohydrate** An essential chemical in all cells that is broken down to form sugars; *glucose, sucrose, lactose, galactose*
- Carbon cycle** The flow of carbon dioxide and oxygen throughout the Earth
- Carrying capacity** The most amount of a particular organism that can be supported by an ecosystem
- Cell** The basic structural and functional unit of all organisms
- Cell differentiation** A process where cells change to perform different roles
- Cell division** A process where one cell becomes more than one cell
- Cell membrane** Surrounds the cell and keeps it together; also decides what material enters and leaves
- Cell organelle** Parts of the cell that perform specific functions
- Cell wall** The stiff outer layer of a cell that protects the cell and gives it shape
- Cellular respiration** The process where organisms get energy from organic molecules
- Ceramic** Something made of hard brittle material produced from nonmetallic minerals by baking at high temperatures
- Characteristic** A distinguishing quality of something; *generosity is one of his best characteristics*
- Chemical** Material produced by or used in a reaction involving changes in atoms or molecules
- Chemical change** A change in a substance that results in a completely different substance or substances and cannot be undone
- Chemical equation** A short notation for describing a chemical change; $2H_2 + O_2 \rightarrow 2H_2O$
- Chemical formula** The sequence of atoms that describes a certain molecule
- Chemical property** Describes the ability of a substance to react and form new substances
- Chemical reaction** What occurs when one or more reactants combine to form one or more products

- Chemosynthesis** The creation of carbohydrate from carbon dioxide and water that only happens in certain bacteria and fungi
- Chloroplast** Organelle in plants and some other organisms which is responsible for photosynthesis
- Chromosome** A thread-like strand of DNA or RNA in the cell
- Cilia** A hair-like organelle on the outside of a cell used in movement
- Climate** The weather in some location over a long period of time
- Cloning** The creation of genetically identical copies of some organism
- Collision** An event where two objects come together
- Comet** A small, frozen object outside the earth which travels around the sun in an ellipse
- Commensalism** A relationship between two organisms where one benefits and the other is unaffected
- Comment** Write your personal opinion about the subject
- Community** The collection of all organisms that live together on an area of land
- Compare** Look for characteristics that resemble each other. Emphasize similarities and differences.
- Competition** When more than one organism is trying to obtain the same resources
- Conceive** To have the idea for something
- Conclusion** An explanation of the results of an experiment
- Conduction** The ability of a material to allow electricity or heat to pass through
- Conductivity** The amount of conduction of a material
- Conserve** To keep the same through a physical or chemical reaction; *energy is conserved in this process*
- Constant** Does not change
- Constrain** To limit, hold back or restrict
- Context** The set of facts that surround a situation or event
- Continental Drift** The theory that states the continents are constantly in motion
- Contrast** Stress the differences between things.
- Convection** The process where heat causes fluids (gas or liquid) to rise and bring heat up
- Covalent Bond** A type of chemical bond where electrons are shared between the atoms
- Criticize** Express how you feel about how truthful the information is. Provide evidence and ask questions of the author!
- Cyclic fluctuation** A process that involves change, but returns to the same state over and over again
- Darwin** Charles Darwin, who came up with the most widely accepted theory of evolution

- Data** The results or information that you get from doing a scientific experiment
- Deciduous forest** A biome where the trees lose their leaves every year
- Deduction** A way of making scientific discoveries where general ideas are tested very specifically
- Deep interior** The mantle and core of the Earth
- Define** Give concise and clear meaning to what you are asked to define.
- Deletion** The removal of a DNA base that results in a genetic mutation
- Density** The mass of a substance per unit volume
- Describe** Recount or relate in sequence.
- Diagram** Provide a drawing, chart or plan. Make sure to label it completely!
- Differentiate** Point out the details that allow the reader to tell two or more things apart. These things are usually in the same category.
- Discuss** Examine, analyze and discuss the material and problem being presented.
- Dissipate** To cause to separate and go in different directions
- Dissolve** To cause to go into a solution
- Distribution** The amount of scattering over a certain area
- Diversity** The distribution and abundance of different plant and animal communities and species within a given area
- DNA** Abbreviation for deoxyribonucleic acid, which contains the genetic instructions for all forms of life
- Dominant** A genetic characteristic that is always expressed by the organism
- Ductile** Can be drawn into wire
- Earthquake** The movement of Earth's plates which results in shaking on the surface of the crust
- Ecosystem** An ecosystem is an area consisting of all plants, animals and micro-organisms (biotic factors) working together with all of the non-living (abiotic) factors of the environment
- Electric force** The force between a positively-charged particle and an electron (negatively charged)
- Electrically neutral** Neither positively charged or negatively charged
- Electricity** Energy caused by the movement of electrons in a direction
- Electromagnetic radiation** A wave that moves back and forth at a certain frequency and moves through space at the speed of light
- Electromagnetic spectrum** The range of all possible electromagnetic radiation
- Electromagnetic waves** A wave or "disturbance" in space; *radio, television, x-rays, microwaves*
- Electron** A negatively charged particle outside the nucleus of an atom

- Element** A substance composed of atoms with the identical atomic number; organized in the periodic table
- Emigration** The act of leaving one place for another
- Endothermic** A chemical reaction that absorbs heat energy
- Energy** The property of something's ability to do work
- Energy production** Since energy cannot be created or destroyed, this refers to getting energy into a more usable form
- Energy pyramid** A diagram showing that as you go up the pyramid, the total amount of energy decreases
- Energy transfer** Energy can be transferred from one place to another, but when this happens, energy is always lost
- Equilibrium** A system is at equilibrium when no change is occurring
- Ethics** A system of principles that talks about good conduct
- Eukaryote** A type of organism that has a true nucleus in its cell(s)
- Evaluate** Consider the problem, giving both advantages and disadvantages. Mention the causes of each.
- Evidence** Knowledge on which to base an idea or belief
- Evolution** The events involved in the development over long periods of time of organisms
- Evolutionary relationship** How closely related two organisms are in terms of evolution
- Exert** To make a great effort
- Exothermic** A chemical reaction that gives off heat energy
- Explain** Make a clear and simple argument for the materials that you are presenting. Give reasons why someone might think differently.
- Extinction** No longer in existence
- Extrusive** On the outside; when talking about rocks, extrusive rocks are formed on the surface of the Earth when lava cools
- Eyewash** A safety feature of a classroom which allows people to safely wash their eyes of any chemicals or objects
- Family** The classification group above genus
- Faulting** The creation of a crack in the surface of the Earth due to plate tectonics
- Fermentation** The process of energy production that happens in many organisms and does not require oxygen
- Fission** The splitting of an atomic nucleus that releases energy
- Flagella** An organelle of some prokaryotes that allows for movement and resembles a tail
- Fluid** Anything that flows; both gases and liquids are considered fluids

- Folding** A process that happens on the surface of the earth when rock is pushed together
- Food web** A diagram that shows the relationships between different organisms in an ecosystem
- Force** Something that produces a change in an object
- Formation** The geological features of the earth
- Formulate** Express a thought or idea based on the review of information
- Fossil** The remains (or an impression) of a plant or animal that existed in a past geological age and that has been removed from the soil
- Fossil fuel** An energy source (fuel) made from ancient plant or animal remains (fossils)
- Fossil record** A piece of evidence for evolution that shows the development of organisms over time across the entire world
- Frequency** The amount of times something happens per second
- Friction** The resistance when one object contacts another
- Fuel** A source of energy
- Function** What something is used for
- Fungi** The kingdom of living things that are eukaryotic and make their own energy; *mushrooms, yeast, molds*
- Fusion** The combination of two or more atomic nuclei that releases energy
- Gametes** The cells that are responsible for sexual reproduction; *sperm, eggs*
- Gamma ray** A form of electromagnetic radiation that has a very short wavelength and high frequency
- Gene** The basic unit of heredity, composed of DNA and found on chromosomes
- Gene frequency** The amount of times a particular gene is found in a population
- Genetic composition** The collection of all of the genes of a particular organism
- Genetic drift** The frequency of a particular gene in a population changes in a certain direction
- Genetic research** Research that investigates what information is in organisms' DNA
- Genetic variation** Changes between organisms that is based on their DNA
- Genetically modified food** Food that has been changed so that its DNA benefits humans
- Genotype** The letters that represent the two alleles that make up a gene
- Genus** A classification of living things that is more specific than the species
- Geologic time scale** A chart that shows the eras and periods of major events on Earth
- Geological** Referring to geology, the study of the Earth
- Geology** The study of the Earth

- Germ** A small organism that causes disease
- Germ theory** The theory that says that diseases come from small organisms (germs)
- Global warming** The idea that Earth's temperature is rising and causing mainly negative effects
- Goggles** A safety device used whenever the eyes could be injured by a chemical or physical experiment
- Gravity** The theory that all objects are drawn to each other depending on their distance from each other and their masses
- Growth** The increase of size of an individual; can also be the presence of something
- Habitat** The environment that a species depends upon for its survival
- Hardness** A scale that tells how hard a particular rock is; harder rock scratches softer rock
- Helium** The second-lightest chemical element and found primarily in stars like the sun
- Heterozygous** Meaning different; in genetics, this refers to a genotype made up of both a dominant and recessive allele; *Bb, Dd, Ff*
- Hierarchy** A sequence of groupings of things in a system; businesses have hierarchies which start with the president of the company, then managers (bosses) and finish with individual employees
- Homeostasis** Maintenance of a constant internal environment in an organism.
- Homozygous** Meaning same; in genetics, this refers to a genotype made up of two identical alleles; *BB, dd, FF*
- Hurricane** An intense cyclone (spinning storm system) that has winds above 73 miles per hour
- Hybrid** A combination of two different things; in genetics, this refers to the cross between a homozygous dominant and homozygous recessive individual to form heterozygous individuals; $BB \times bb = Bb$
- Hydrogen** The lightest chemical element and the main fuel in stars like the sun
- Hypothesis** An educated guess that is used for experiments; a hypothesis must be tested in order to figure out whether it is true or false
- Igneous** Rock that is formed from cooled magma (intrusive rock) or lava (extrusive rock)
- Illustrate** Give examples, comparisons or analogies.
- Immigration** The movement of an organism into an area
- Inadvertently** Unintentionally; usually because something was not taken into account
- Independent assortment** Refers to the genetic concept that genes separate independently of each other during meiosis
- Indestructible** Cannot be destroyed
- Indivisible** Cannot be divided

- Induction** A type of scientific thinking where specific instances are put together to form general ideas
- Infer** Extend information beyond what is directly stated.
- Inference** A conclusion based upon facts
- Informed consent** When performing an experiment involving people, this is the permission that the subject (person being experimented on) gives, but only when they know what will be done
- Infrared** A part of the electromagnetic spectrum that has less energy than visible light; it is the radiation that heat gives off
- Inheritance** Attributes that are received by offspring (children) from their parents
- Inherited characteristics** Attributes that are received by offspring (children) from their parents
- Inquiry** The process where information is received by asking questions
- Interpret** Give the meaning of something by paraphrasing or explanation
- Interrelatedness** Describes how genetically related two species of organisms are
- Intrusive** On the inside; refers to the type of rock that is formed inside the Earth when magma cools
- Investigation** The work of inquiring into something thoroughly and according to specific steps
- Ion** A charged particle that either has more or less electrons than protons
- Ionic Bond** A type of bond where ions are formed; electrons are not shared between the atoms as they are lost from one atom and attracted to the other
- Isotope** A version of an element having the same atomic number but a different atomic mass; this is due to an increase or decrease in the number of electrons
- Jumping gene** A piece of DNA that can become a part of the chromosome at many different sites along the chromosome
- Justify** State why you think something is the way that it is. Give supporting evidence.
- Kinetic energy** The energy of movement
- Lake effect snow** Snow created when cold air flows over relatively warm water then over cold land
- Lamarck** Referring to the scientist who proposed the idea that evolution happens by the inheritance of acquired characteristics; *Lamarck thought that giraffes' necks got longer because they grew during the lifetime of the parents and the parents passed long necks on to their offspring*
- Landform** A natural feature on Earth's surface
- Life process** Something that occurs in an organism that is necessary to keep it alive
- Light** A type of electromagnetic radiation that can be seen with eyes
- Lipid** Refers to a group of fats that cannot be dissolved in water

- Liquid** The state of matter where the particles are loose and form the shape of their container but do not necessarily fill up the container
- Lithosphere** The section of Earth that is composed of rock
- Living system** A group of organisms and their environment
- Living thing** An organism
- Logic** Reasoned and reasonable judgment; *"it made a certain kind of logic"*
- Magma** Melted rock inside of the Earth
- Magnet** A type of substance containing iron which also attracts iron (or steel)
- Malleable** Can be pounded and shaped without breaking
- Mass** How much matter there is in an object
- Material** Something that is made up of matter
- Material Safety Data Sheet** A piece of safety equipment that comes with all ordered chemicals and states the properties of the chemical and safe handling procedures
- Matter** Something that has mass and occupies space
- Mechanical** The use of tools or devices
- Medium** The surrounding environment
- Meiosis** The process of cell division which produces four sex cells (gametes) from one cell
- Mendel** Gregor Mendel, the scientist who experimented with pea plants and discovered how genetic factors were passed down from parents to offspring
- Metal** A chemical element from the left-hand side of the periodic table that is malleable, ductile and conducts electricity
- Metalloid** A chemical element that has characteristics of both metals and nonmetals
- Metamorphic** Rock formed when igneous or sedimentary rock is put under pressure, heated, or reacts chemically
- Microorganism** A small organism that is only visible underneath a microscope
- Microwave** A type of electromagnetic radiation that has low energy and is used primarily for communication (cell phones)
- Mitochondria** An organelle in all eukaryotic cells which is responsible for energy production
- Mitosis** The process of cell division which produces two body cells from one cell
- Mixture** A substance consisting of two or more substances mixed together
- Molecule** The smallest unit of a substance that is the combination of one or more atoms
- Motion** A change in position or location
- Movement** A change in position that does not necessarily mean a change in location
- Multicellular** Made up of more than one cell
- Mutation** A change in the DNA of an organism; *substitution, deletion, insertion*

- Mutualism** A symbiotic relationship where both organisms benefit
- Nanotechnology** Technology that is only visible through the microscope
- Natural disaster** A result of severe weather (like tornadoes and hurricanes) or some geological event (like a volcano, earthquake or asteroid) that causes devastation and destruction
- Natural selection** The process in which some organisms live and reproduce and others die before reproducing
- Net force** The combination of all forces that act upon an object
- Neutral** Not negatively charged and not positively charged; no charge
- Newton** Sir Isaac Newton, a scientist who made hundreds of contributions to science like the law of gravity and his three major laws of physics; a Newton is a measure of force
- Newton's 1st Law** An object at rest stays at rest and an object in motion stays in motion unless acted upon by an outside force
- Newton's 2nd Law** The net force on an object is equal to the acceleration on that object times the mass of the object
- Newton's 3rd Law** Every reaction has an equal and opposite reaction
- Non-sustainable agriculture** Agriculture that is done so the land is over-farmed and cannot continue to produce forever
- Nonmetal** A chemical element from the right side of the periodic table that is brittle and does not conduct electricity well
- Nuclear** Relating to the nucleus of an atom
- Nuclear decay** This happens when the nucleus of an atom breaks apart; usually, neutrons and protons leave the nucleus
- Nuclear energy** Energy that is produced by fission or fusion reactions
- Nuclear reaction** A reaction that happens in the nucleus of an atom; *fission, fusion*
- Nucleic acid** In the nucleus of a cell, there are two major types of nucleic acids: DNA and RNA
- Nucleotides** These are found on a strand of DNA or RNA as a sequence of bases
- Nucleus** In biology, this refers to the middle of a cell; in physical science, this refers to the center of an atom
- Observation** Noticing or paying attention
- Offspring** Children, of any organism
- Organic molecule** A molecule that contains carbon atoms bonded together
- Organism** A living thing that can live and reproduce independently
- Oxygen** One of the chemical elements on the periodic table that is used by all living things
- Ozone** A form of oxygen that, in the atmosphere, protects living things from ultraviolet rays

- Parasitism** A relationship in which one organism lives in or on another organism and benefits from that relationship while the host organism is harmed by it
- Particle** An object in the atom that has mass
- Peer review** A method of selecting essays to be published where a group of peers review and make comments about the submitted essays
- Periodic table** An arrangement of chemical elements based on their atomic numbers and similarity of properties
- pH scale** Measures the strength of acids and bases; an acid has a number below 7, a base has a number above 7 and neutral materials have a pH of 7 (like water)
- Phenomenon** A fact, event or circumstance that can be observed
- Phenotype** The physical expression (what can be seen) of a genetic characteristic; *brown eyes, black hair*
- Phosphorous** One of the chemical elements on the periodic table that is used by all plants and animals
- Photosynthesis** The process that happens in plants and some other organisms which takes the sun's energy and turns it into usable energy; $6\text{CO}_2 + 6\text{H}_2\text{O} + \text{Light} \rightarrow \text{C}_6\text{H}_{12}\text{O}_6$ (*glucose*) + 6O_2
- Physical change** A change in a substance that results in a different form of the substance and can be undone
- Physical property** A characteristic of a substance that can be observed; *color, taste, texture, density*
- Physical science** Any of the sciences, such as physics, chemistry, astronomy, and geology, that discusses the nature and properties of energy and nonliving matter
- Pioneer** In biology, the first species that inhabit a certain area
- Planet** Any large body of rock that orbits a star
- Plastic** A material that can be molded and formed into objects and films
- Plate tectonics** The theory that the earth's surface is divided into a few large, thick plates that are constantly moving
- Position** The place in space where an object is found in relation to another object
- Potential energy** Stored energy; energy that is released and then becomes kinetic energy
- Precipitation** Any form of water that falls from the atmosphere; *rain, snow, sleet, hail*
- Predation** When one animal hunts and feeds on another animal
- Predator** An animal that hunts and feeds on prey
- Predict** Use what is already known to make a statement about what will happen in the future.
- Prokaryote** A type of living thing that is single-celled and has no true nucleus
- Propagate** To transmit or to continue a process
- Proportional** A good size compared to something else
- Protein** A sequence of amino acids

- Protein synthesis** The creation of proteins in the cell from DNA
- Proton** A positively-charged particle in the nucleus of an atom
- Pure substance** A substance that has an identical chemical composition in every part
- Purebred** For every genetic characteristic, a purebred is homozygous
- Radiation** Energy that is transmitted in the form of rays or waves or particles; when talking about heat, this is when heat spreads out from a central source
- Radio wave** A type of electromagnetic radiation that has very low energy and a very long wavelength (can be 10 – 20 feet long); used for cell phones and radios of all kinds
- Radioactive substance** A type of substance that releases neutrons and protons from its nucleus
- Radiometric dating** Determining the age of a rock or fossil based on the amount of one isotope compared with another isotope; for example, the amount of carbon-14 versus the amount of carbon-12 can determine how old something is because carbon-14 breaks down to carbon-12 over time
- Random** A lack of order and predictability
- Random motion** Motion that has no specific direction and cannot be predicted
- Reaction** When one or more substances are changed into other substances
- Recessive** A genetic characteristic that is only expressed by the organism if there is no dominant characteristic present
- Recycle** To break down a material so that it can be reused instead of throwing it away
- Reflect** To throw or bend back
- Relate** Show the connection between two or more things. Point out how one causes or is like the other.
- Reproduce** To create more of
- Reproduction** The process of creating offspring
- Resource** A supply of something that can be used when needed
- Rock sequence** The order of rocks according to the geological age where they can be found
- Science** The study of physical and material knowledge in an organized manner according to specific procedures
- Sea-floor spreading** In geology, when oceanic plates move apart, the middle fills in with magma which cools and forms new sea floor
- Segregation** In genetics, this refers to the separation of paired genes into separate sex cells (gametes)
- Semiconductor** A type of material that allows electricity to flow with average resistance
- Sequence** An arrangement in which things follow a pattern; in genetics, this refers to the bases of DNA, in order
- Sex cell** A type of cell which is involved in reproduction; *sperm, eggs*

- Sex-linked trait** A genetic characteristic that is present only on the X (or in some cases, the Y) chromosome and so behaves differently in males and females
- Sexual reproduction** The combination of two individuals (genetically) to form one or more new organisms
- Solid** One of the basic states of matter which has a definite shape and volume
- Somatic cells** The type of cells that form the body of an organism and are not involved in sexual reproduction
- Space** The unlimited area in which everything is located; "*Space, the final frontier*"
- Species** A very specific classification of organisms; all members of a species can mate together
- Speed** The amount of distance an object travels divided by the amount of time it takes; *He traveled 30 mph*
- Star** An object in the sky that is made up of gases and very hot due to nuclear reactions (fission and fusion) that happen inside the star
- State** Fully and clearly describe the main points in specific terms. Don't include details or examples.
- Stem cell** A type of cell that can turn into any other type of cell
- Substance** A type of matter that has the same properties; *water, oxygen, carbon dioxide, diamond*
- Substitution** The replacement of one thing for another; in chemistry, this is a type of reaction where one atom or group is replaced by another; in genetics, this refers to a mutation where one base of DNA changes to another
- Sulfur** A chemical element that is a part of fossil fuels and can contribute to acid rain
- Summarize** Give a brief description of the main ideas.
- Superconductor** A type of material that allows electricity to flow with no resistance
- Superimpose** To place one image on top of another
- Support** Show evidence to back a conclusion or argument. In biology, this refers to the ability of the environment to provide basic needs to the organisms that live there
- Survive** In biology, this refers to an organism that makes it to the next generation
- Sustainable agriculture** Agriculture that is done so the land is used well and can continue on forever
- Symbiosis** A relationship between two or more organisms
- Synthesis** The combination of two or more things or concepts
- Technology** The application of science to solve a particular problem
- Temperature** The measurement of the *average* thermal energy of a system
- Theory** A well proven explanation of some part of the natural world
- Thermal energy** Heat

- Time** A part of the measuring system used to measure how long an action takes
- Tornado alley** The area in the midwest United States that gets a high amount of tornadoes
- Total mass** The combination of all of the masses of everything that is being considered
- Trace** Describe a path or sequence of events.
- Ultraviolet** A form of electromagnetic radiation that has more energy than visible light; most ultraviolet light is usually blocked in our atmosphere by ozone
- Unbalanced charge** An electric charge, positive or negative, that is not neutral because there are either more or less electrons than normal
- Unbalanced force** A force that is not balanced out by an opposite force; *She was pushing against the wall, but when the wall fell it became an unbalanced force!*
- Undirected variation** Changes in a population that seem random but can result in mutations that benefit the organism
- Unicellular** Made up of one cell
- Unity** Property of something in that it is complete
- Unstable nuclei** More than one nucleus (nuclei) that break down very quickly to smaller nuclei
- Urban growth** The distance that a city (an urban center) is expanding
- Variation** Something that has changed; in biology, this refers to the genetic difference between individuals
- Velocity** The distance that an object travels over a certain amount of time *and* in a certain direction; *He traveled at 30 mph south*
- Vibration** A shaky motion, especially inside of an atom
- Virus** A small particle that contains DNA or RNA and is able to reproduce only inside of a living cell
- Visible light** A form of electromagnetic radiation that is visible to the human eye (other organisms are capable of seeing some infrared and ultraviolet radiation)
- Volcanic action** The type and amount of lava that is erupting from a volcano
- Volume** The amount of space an object takes up
- Wave** A movement up and down or back and forth
- Wavelength** Refers to the length of a single wave (back and forth); can be calculated from the crest of one wave to the crest of the next
- Weather** The current state of the atmosphere in terms of temperature, wind, clouds and precipitation
- Weather pattern** Weather that happens over and over again over a certain period of time
- Weight** The combination of the mass and the force of gravity on an object
- X-rays** A form of electromagnetic radiation that has low energy and is used in medical equipment