abrasion	**air mass**
absolute age	**altitude**
absolute humidity	**angle of insolation**
acid precipitation	**Antarctic Circle**
agents of erosion	**anticyclone**

A large body of air that is relatively uniform in temperature and humidity (ESRT)	**The grinding away of rock by friction with other rocks**
The angular elevation of an object above the horizon	**An age expressed as a specific amount of time, absolute age always includes a unit of time; numerical age (ESRT)**
The angle between Earth's surface and incoming rays of sunlight; angle of the sun above the horizon	**The mass of water vapor in each cubic unit of air**
The latitude (66.5°S) south of which the sun does not rise on the Southern Hemisphere's winter solstice; the latitude (66.5°S) south of which the sun is in the sky for 24 hours on the Southern Hemisphere's the summer solstice	**Precipitation (snow or rain) with corrosive (low pH) chemical properties, generally the result of pollution from the burning of fossil fuels**
A region of relatively high atmospheric pressure	**Moving water, wind, or ice that cause the transport of weathered materials**

aquifer	**asthenosphere**
arctic air mass	**astronomy**
Arctic Circle	**atmosphere**
arid climate	**avalanche**
asteroid	**axis**

The upper part of the mantle, capable of slow deformation and flow under heat and pressure (ESRT)	**An underground zone of porous material that contains useful quantities of groundwater**
The study of Earth's motions and the objects beyond Earth, such as planets and stars	**A large body very of cold air that originated in the Arctic (ESRT)**
The layer of gases that surrounds a celestial body (ESRT)	**The latitude (66.5°N) north of which the sun does not rise on the Northern Hemisphere's winter solstice; The latitude (66.5°N) north of which the sun is in the sky for 24 hours on the Northern Hemisphere's summer solstice**
The rapid, downslope movement of snow, similar to a landslide, that occurs on steep slopes	**A climate that has little rain and low humidity**
An imaginary line that passes through Earth's North and South Poles	**An irregularly shaped rocky mass that is smaller than a planet and occupies an orbit around the sun; most are found between the orbits of Mars and Jupiter**

azimuth	**bedrock**
banding	**big bang**
barometer	**bioclastic sedimentary rocks**
barrier islands	**biological activity**
bed load	**blizzard**

The solid, or continuous, rock that extends into Earth's interior	**The compass direction specified as an angle. Azimuth starts at 0° at due North and progresses through East (90°), South (180°), West (270°), and back to North (360°, or 0°).**
The theory that the universe formed as a concentration of matter expanded explosively	**The light- and dark-colored bands of mineral that form parallel to foliation in metamorphic rocks (ESRT)**
Rocks composed of materials made from or by living organisms (ESRT)	**An instrument used to measure air pressure**
The actions of plants and animals that cause weathering	**Offshore features, similar to sandbars, that rise above sea level**
A winter snowstorm that produces heavy snow and winds of 35 miles per hour (56 kilometers per hour) or greater	**The sediments that roll or bounce along the bottom of a stream**

boiling	**chemical change**
caldera	**chemical weathering**
calorie	**classification**
capillarity	**clastic**
celestial objects	**cleavage**

A change that results in the formation of a new substance	**The change in state from liquid to gas (vapor) at the boiling point**
A natural process that occurs under conditions at Earth's surface, forming new compounds	**A large, bowl-shaped depression formed when the top of a volcano collapses into the emptied magma chamber**
The organization of objects, ideas, or information according to their properties	**The energy absorbed when the temperature of 1 gram of water increases 1 Celsius degree (ESRT)**
Sedimentary rocks that are composed of the weathered remains of other rocks; fragmental (ESRT)	**The tendency of a substance to pull water into tiny spaces, or pores, by adhesion**
The tendency of some minerals to break along smooth, flat surfaces (ESRT)	**Things seen in the sky that are outside Earth's atmosphere**

climate	**condensation**
cloud	**condensation nuclei**
cloud-base altitude	**conduction**
comet	**conservation**
compounds	**contact metamorphism**

The process by which a substance changes from a gas to a liquid (ESRT)	**The average weather conditions over a long time, including the range of conditions**
Tiny particles of solids suspended in the air on which water condenses to form clouds	**A large body of tiny water droplets or ice crystals**
The movement of heat that occurs as heated molecules pass their vibrational energy to nearby molecules.	**The height at which rising air begins to form clouds**
The careful use, protection, and restoration of our natural resources	**An object made of ice and rock fragments that revolves around the sun usually in a highly eccentric orbit; it may be visible periodically in the night sky as a small spot of light with a long tail**
The process in which an intrusion of hot, molten magma causes changes in the rock close to it (ESRT)	**Substances made up of more than one kind of atom (element) combined into larger units called molecules**

continental air mass	**convection cell**
continental climate	**convergence**
continental glacier	**convergent plate boundary**
contour line	**coordinate system**
convection	**Coriolis effect**

The pattern of circulation that involves vertical and horizontal flow	**A large body of air that has relatively low humidity because it originated over land (ESRT)**
The act of moving together (ESRT)	**A climate characterized by large seasonal changes in temperature**
A place where lithospheric plates collide (ESRT)	**A glacier that flows outward from a zone of accumulation to cover a large part of a continent**
A grid in which each location has a unique designation defined by the intersection of two lines (ESRT)	**Lines on a map that connect places having the same elevation (height above or below sea level)**
The apparent curvature of the path of winds and ocean currents as they travel long distances over Earth's surface; caused by Earth's rotation	**A form of heat flow that moves matter and energy as density currents under the influence of gravity (ESRT)**

correlation	**decay product**
cosmic background radiation	**decay-product ratio**
crater	**deforestation**
crystalline sedimentary rocks	**delta**
cyclone	**density**

The stable, ending material of radioactive decay (ESRT)	**Matching bedrock layers by rock type or by age**
A comparison of the amount of the original radioisotope with the amount of its decay product (ESRT)	**Weak electromagnetic radiation (radio waves) left over from the formation of the universe (big bang)**
Cutting forests to clear the land for other uses	**A bowl-shaped depression at the top of a volcano caused by an explosive eruption or the impact of an object from space.**
A deposit of sediment built into a large body of water by deposition from a stream	**Sedimentary rocks that form by precipitation (ESRT)**
The concentration of matter, or the mass per unit volume (ESRT)	**(1) A region of relatively low atmospheric pressure; (2) term applied to hurricanes in the Indian Ocean; (3) synonym for tornado**

deposition	**divergence**
dew	**divergent plate boundary**
dew point	**Doppler effect**
dew-point temperature	**Doppler radar**
discharge	**drainage divides**

The act of moving apart	**The settling, or release, of sediments that have been carried by an agent of erosion (ESRT)**
A place where lithospheric plates separate (ESRT)	**Liquid water that forms by condensation on cold surfaces**
The apparent change in frequency and wavelength of energy radiated by a source as a result of the motion of the source or the observer	**The temperature at which air is saturated with water vapor (ESRT)**
A device that uses reflected radio waves to measure wind speed and direction at a distance	**The temperature to which air must be cooled to become saturated with moisture (ESRT)**
The high ridges, from which water drains in opposite directions, that separate one watershed from another	**The amount of water flowing past a particular place in a specified time**

drainage pattern	**Earth science**
drumlins	**earthquake**
dune	**eccentricity**
duration of insolation	**eclipse**
dynamic equilibrium	**ecology**

A science that applies the tools of the physical sciences to study Earth; including the solid Earth, its oceans, atmosphere, and core, and surroundings in space	**The path of a stream, which is influenced by topography and geologic structures**
A sudden movement of Earth's crust that releases energy (ESRT)	**Streamlined hills of glacial origin aligned north-to-south that have steep sides, a blunt north slope, and a gentle slope to the south; made of till**
A measure of the elongation of an ellipse (ESRT)	**A hill or ridge of wind-blown sand**
The partial or complete hiding of one celestial object by another. (An eclipse of the moon occurs when the moon orbits into Earth's shadow. An eclipse of the sun occurs when the moon's orbit takes it directly between Earth and the sun.)	**The amount of time the sun is visible in the sky, or the number of hours between sunrise and sunset**
The branch of science that is concerned with the relationships among organisms and their environment	**The state in which opposing processes take place at the same rate; a state of balance of events**

El Niño	**equilibrium**
elements	**equinox**
ellipse	**erosion**
epicenter	**erratics**
equator	**escarpment**

A state of balance	**The periodic replacement of upwelling cold water by warm water along the western coast of South America**
One of the two days on which the sun rises due east and sets due west, on which the length of day and night are equal, on which the sun's vertical rays are at the equator; the first day of spring or fall	**The basic substances that are the building blocks of matter (ESRT)**
The transportation of sediments by water, air, glaciers, or by gravity acting alone. (See agents of erosion.) (ESRT)	**A closed curve formed around two fixed points such that the total distance from any point on the curve to both fixed points is constant**
Large rocks transported from one area to another by glaciers	**The place on Earth's surface directly above an earthquake's focus (ESRT)**
A steep slope or a cliff of resistant rock that marks the edge of a relatively flat area	**An imaginary line that circles Earth halfway between the North and South Poles (ESRT)**

evaporation	**faults**
evaporation	**felsic**
evolution	**field**
extinction	**floodplain**
extrusion	**flotation**

Cracks in Earth's crust along which movement occurs	**The process by which a substance changes from a liquid to a gas**
Describes light-colored minerals rich in aluminum or rocks made of these minerals (ESRT)	**The change in state from liquid to gas when the temperature is below the boiling point**
A region in which a force, temperature, land elevation, or another quantity can be measured at any location (ESRT)	**The gradual change in living organisms from generation to generation, over a long period of time**
A flat region next to a stream or river that can be covered by water in times of flood	**The death of every individual of a particular species (ESRT)**
The method by which particles that are too large to be carried in solution or by suspension float on water	**The movement of magma onto Earth's surface (ESRT)**

fluid	**fracture**
focus	**fragmental**
fog	**freezing**
foliation	**freezing rain**
fossils	**frequency**

The way minerals break along curved surfaces (ESRT)	**Any substance that can flow, usually a liquid or a gas**
Describes sedimentary rocks that are composed of the weathered remains of other rocks; clastic (ESRT)	**(1) The place where rock begins to separate during an earthquake, usually located underground. (2) Either of the two fixed points that determine the shape of an ellipse (ESRT)**
The change in state from liquid to solid	**Very low clouds that reach the ground (ESRT)**
Rain that freezes on contact with Earth's surface	**The alignment of mineral crystals, caused by metamorphism (ESRT)**
A measure of how many waves pass a given point in a given period of time	**A record of prehistoric life preserved in rock (ESRT)**

front	**geology**
frost	**geosphere**
frost wedging	**glacier**
galaxy	**global warming**
geologists	**graded bedding**

The study of the rock portion of Earth, its interior, and surface processes	**A boundary, or interface, between air masses (ESRT)**
The mass of solid and molten rock that extends more then 6000 kilometers from Earth's solid surface to its center	**Ice crystals that form when water vapor comes in contact with surfaces whose temperature is below 0°C**
A large mass ice that flows over land due to gravity	**A form of physical weathering caused by repeated freezing and thawing of water within cracks in rocks**
A long-term increase in the average temperature of Earth's atmosphere, it is probably the result of the increased concentration of carbon dioxide and other greenhouse gases in the atmosphere	**A huge group of stars held together by gravity**
Within a layer of sediment, the gradual change in sediment size from bottom (large) to top (small) showing the order in which particles settled; vertical sorting	**Scientists who study the origin, history, and structure of Earth and how it changes**

gradient	**groundwater**
gravity	**hail**
greenhouse effect	**half-life period**
Greenwich Mean Time	**hardness**
grooves	**hazard**

Water that enters the ground and occupies free space in soil and sediment as well as openings in bedrock, including cracks, and spaces between grains	**The change in field value per unit distance (ESRT)**
Pellets of ice, which grow larger as they repeatedly become coated with water, and are then blown higher into cold air where the coating of water freezes; eventually the ice pellets become heavy enough to fall to the ground. (Hail is most common during thunderstorms.) (ESRT)	**The force of attraction between objects**
The time it takes for half of the atoms in a sample of radioactive element to decay (ESRT)	**The process by which carbon dioxide and water vapor absorb heat radiation, increasing the temperature of Earth's atmosphere**
The resistance of a mineral to being scratched (ESRT)	**The basis of standard time throughout the world; based on measurements of the position of the sun in Greenwich, England**
An event that places people in danger of injury, loss of life, or property damage	**Furrows of glacial origin in bedrock that are deeper and wider than striations**

horizontal sorting	**hydrosphere**
hot spot	**hygrometer**
humidity	**igneous rocks**
hurricane	**inclusion**
hydrologic cycle	**index fossils**

Earth's liquid water, including oceans, surface water, and groundwater	**A decrease in the size of sediment particles with distance from the shore, produced as a stream enters calm water**
An instrument used to measure atmospheric humidity	**A long-lived source of magma within the asthenosphere and below the moving lithospheric plates (ESRT)**
Rocks that form by the solidification of melted rock (ESRT)	**The water-vapor content of air (ESRT)**
A fragment of one type of rock that is enclosed in another rock	**A large storm of tropical origin that has sustained winds in excess of 74 miles (120 kilometers) per hour (ESRT)**
Fossils used to establish the age of rocks; they must be easy to recognize, found over a large geographic area, and they must have existed for a brief period of geologic time (ESRT)	**A model that represents water movement and storage within Earth, on the surface, and within the atmosphere**

inertia	**island arc**
inference	**isobars**
infiltration	**isoline**
insolation	**isotherm**
intrusion	**isotopes**

A curved line of volcanic islands that are the result of partial melting of a tectonic plate where it descends beneath another oceanic plate	**The tendency of an object at rest to remain at rest or an object in motion to move at a constant speed in a straight line unless acted on by an unbalanced force**
Isolines (q.v.) that connect locations with the same atmospheric pressure on a weather map	**A conclusion based on observations**
A line on a field map that connects places having the same field quantity value	**The process in which water soaks into the ground**
A line on a field map that connects places having the same temperature	**Solar energy that reaches Earth (incoming solar radiation)**
Atoms of the same element that contain different numbers of neutrons in their nucleus (ESRT)	**The movement of magma to a new position within Earth's crust. A body of rock that was injected into surrounding rock as magma**

jet streams	**landform**
Jovian planet	**landscape**
kettle	**landslide**
lake-effect storms	**latent heat**
land breezes	**latitude**

A feature of a landscape	**Wandering currents of air far above Earth's surface that influence the path of weather systems(ESRT)**
A region that has landforms that are related by similarities in shape, climate, and/or geologic setting; the general shape of a large area of the land surface, such as plains, plateau, or mountain (ESRT)	**A planet whose composition is similar to Jupiter's; also know as a gas giant (ESRT)**
The rapid, downslope movement of rock and soil	**A small closed basin formed in a moraine**
Energy absorbed or released when matter changes state (ESRT)	**Precipitation events that occur downwind from large lakes as the result of moisture that enters the air over the lake; especially common as early winter snow events**
The angular distance north or south of the equator (ESRT)	**Light winds that blow from the land to the water; they usually develop at night as the air over the land becomes cooler than the air over the water**

lava	**lithosphere**
levees	**lithospheric plate**
lightning	**logarithmic**
light-year	**longitude**
liquefaction	**longshore transport**

The solid rock that covers Earth (ESRT)	**Melted rock coming from a volcano or such rock that has cooled and hardened**
A rigid section of Earth's crust, which includes the crust and the rigid upper mantle	**High banks along a river of natural or human origin**
A scale in which an increase of one unit translates to a 10-fold increase in the quantity measured.	**Sudden electrical discharges within clouds, between clouds, and between clouds and the ground that are seen as flashes of light**
The angular distance east or west of the prime meridian (ESRT)	**The distance electromagnetic energy can travel in one year, approximately 6 trillion miles (10 trillion km)**
The motion of sediment parallel to the shore caused by waves	**The process in which strong shaking allows water to surround the particles of sediment, changing the sediments into a material with the properties of a thick fluid**

luminosity	**maritime air mass**
luster	**maritime climate**
mafic	**mass movement**
magma	**meander**
major axis	**mechanical weathering**

A large body of air that has relatively high humidity because it originated over the ocean or other large body of water (ESRT)	**The total energy output of a star; absolute brightness (ESRT)**
A humid climate that occurs over the oceans and in coastal locations	**The way light is reflected and/or absorbed by the surface of a mineral (ESRT)**
The motion of soil or rock down a slope without the influence of running water, wind, or glaciers	**Describes dark-colored minerals rich in magnesium (ESRT)**
A curve that develops in the path of a river when the river flows over relatively flat land	**Hot, liquid rock within Earth (ESRT)**
The breaking up of rock into smaller particles without a change in composition; physical weathering	**The distance across an ellipse measured at it widest point**

melting	**meteorologist**
Mercalli scale	**meteorology**
mesosphere	**mid-latitude cyclone**
metamorphic rocks	**mid-ocean ridges**
meteor	**Milky Way Galaxy**

A scientist who studies the weather	**The change in state from solid to liquid (ESRT)**
The study of Earth's atmosphere and how it changes	**A scale for measuring earthquake intensity based on the reports of people who felt the quake and observed the damage it caused**
An area of low pressure or a storm system, such as those that usually move eastward across the United States	**The layer of Earth's atmosphere directly above the stratosphere, in which temperature decreases with increasing altitude (ESRT)**
A system of underwater mountain ranges that circles Earth like the seams on a baseball (ESRT)	**Rocks that form as a result of heat and/or pressure on other rocks causing chemical (mineral) or physical changes (ESRT)**
The group of billions of stars that includes the sun and our solar system, it is visible as a faint band of light across the night sky	**A streak of light produced as a meteoroid burns due to friction with Earth's atmosphere**

mineral	**moraine**
model	**mountain landscape**
Moho	**natural resources**
Mohs' scale	**neap tides**
monsoons	**nonrenewable resources**

A mass of till deposited by a glacier	**A natural inorganic, crystalline solid that has a specific range of composition and consistent physical properties (ESRT)**
A rugged landscape that has great relief from the top of the highest peaks to deep valleys, commonly underlain by resistant rock types and distorted structures including folds and faults	**Anything that is used to represent something else**
Any material from the environment that is used by people	**The boundary between Earth's crust and mantle (ESRT)**
The smallest tidal range, which occurs when the sun and moon are at right angles to Earth	**A special scale of hardness used to identify minerals (ESRT)**
Resources that exist in a fixed amount or for which the rate of regeneration is so slow that use of these resources will decrease their availability	**Seasonal changes in the direction of the prevailing winds, causing changes in temperature and rainfall**

nuclear fusion	**ores**
oblate	**origin**
observations	**origin time**
ocean trench	**original horizontality**
oceanography	**outcrop**

Rocks that are mined to obtain a substance they contain of economic value	**The process by which the nuclei of light elements, such as hydrogen, under intense heat and pressure form the nuclei of heavier elements, such as helium**
How something was formed	**Slightly flattened at the poles**
The time at which a fault shifted to produce an earthquake (ESRT)	**Information gathered through the use of sight, touch, taste, smell, and hearing**
The principle that no matter the present angle or orientation of sedimentary rock layers, the layers were originally horizontal and were tilted after deposition	**A deep-ocean location where old lithosphere moves back into Earth's interior; also called a subduction zone or a convergent plate boundary (ESRT)**
A place where bedrock is exposed at Earth's surface	**The study of the oceans that cover most of Earth**

outgassing	**percent error**
outwash	**permeability**
overland flow	**phase**
paleontology	**phases of matter**
paradigm	**physical weathering**

A comparison of the size of an error with the size of the value being measured (ESRT)	**The process in which bubbles of hot gas escape from magma exposed to reduced pressure at Earth's surface**
The ability of soil or sediment to allow water to flow through it	**Sorted sediments deposited by water from a melting glacier**
The observed shape of the lighted portion of a celestial object, for example, the moon or Venus	**The water from precipitation that flows downhill under the influence of gravity until it reaches a stream or seeps into the ground; runoff**
The states of matter- solid, liquid, and gas	**The study of fossils**
The breaking up of rock into smaller particles without a change in composition; mechanical weathering	**A coherent set of principles and understandings**

plains	**polar air mass**
plastic	**polarity**
plate tectonics	**pollution**
plateau	**porosity**
plutonic	**precipitation**

A large body of cold air that originated near one of Earth's poles (ESRT)	**Relatively flat landscapes, commonly at low elevation and usually underlain by flat-lying sedimentary rocks; the range of elevation is small (ESRT)**
The direction of a magnetic field determined with an instrument such as a magnetic compass	**A material that is solid under short-term stress, but flow like a liquid when stress is applied over a long period of time**
A sufficient quantity of any material or form of energy in the environment that harms humans or the plants and animals on which they depend	**A theory of crustal movements that combines sea-floor spreading with continental drift (ESRT)**
The ability of a material to hold water in open spaces, or pores	**A rolling landscape or elevated, comparatively flat region with modest topographic relief (ESRT)**
(1) The settling of solids from solution, often the result of the evaporation of seawater (ESRT). (2) Water that falls to Earth as rain, show, sleet, or hail (ESRT)	**Describes igneous rocks that form deep underground (ESRT)**

prevailing winds	**radar**
primary waves (P-waves)	**radiation**
prime meridian	**radioactive**
profile	**radioisotope**
psychrometer	**rain**

A method or device that uses reflected radio waves to locate or map distant objects or weather events; an acronym from radio detection and ranging	**The most common wind direction and speed at a particular location and time of year (ESRT)**
The transfer of energy in the form of electromagnetic waves	**Longitudinal earthquake waves that cause the ground to vibrate forward and back along the direction of travel; the earthquake waves that travel the fastest; P-waves can travel through solids, liquids, and gases (ESRT)**
Describes atoms that breakdown spontaneously, releasing energy and/or subatomic particles to become different elements	**The north-south line through Greenwich, England, from which longitude is measured (ESRT)**
An unstable isotope that breaks down spontaneously at a predictable rate	**A cross section, or side view of an object**
Liquid precipitation that falls quickly; precipitation droplets larger than drizzle. (ESRT)	**An instrument, made up of two thermometers mounted side-by-side on a narrow frame, that is used to determine the dew-point temperature and relative humidity; also known as a wet and dry bulb thermometer (ESRT)**

rain showers	**relative age**
redshift	**relative humidity**
reflection	**relief**
refraction	**renewable resources**
regional metamorphism	**residual soil**

The age of one thing compared to the age of another	**Periods of rain of short duration. (ESRT)**
A comparison of the actual water-vapor content of the air with the maximum amount of water vapor the air can hold at a given temperature (ESRT)	**A displacement of the spectral lines of very distant stars and galaxies, an increase in the wavelength of starlight caused by rapid relative motion of the star away from the observer. (See Doppler effect)**
The difference in elevation from the highest point to the lowest point on the land surface in a specific region	**The process by which light bounces off a surface or material**
Resources that can be replaced by natural processes at a rate will not decrease their availability	**The bending of light and other energy waves as they enter a substance of different density**
Soil that formed in place and remains there	**The process in which a large mass of rock experiences increased heat and pressure due to large-scale movement of Earth's crust (ESRT)**

Richter scale	**saturated air**
rock	**scattering**
runoff	**science**
sandbar	**sea breezes**
satellite	**sea-floor spreading**

The condition in which air is holding as much moisture as it can at a particular temperature	**A scale for measuring earthquake magnitude based on measurements from seismographs**
The reflection of light in many different directions	**A substance that is or was a natural part of the solid Earth, or lithosphere (ESRT)**
A universal method of gathering, organizing, and using information about the environment	**The water from precipitation that flows downhill under the influence of gravity until it reaches a stream, or seeps into the ground; runoff may also include stream flow; overland flow**
Light winds that blow from the water to the land that usually develop in the late morning or afternoon when the land warms; they continue into the evening until the land cools	**A low ridge of sand deposited along the shore by currents**
The process in which new lithosphere is made at the mid-ocean ridges, and adds on to older material that moves away from the ridges on both sides	**An object in space that revolves around another object as a result of gravity**

secondary waves (S-waves)	**seismologists**
sediment	**seismology**
sedimentary rocks	**silicate**
seismic moment	**sleet**
seismograph	**smog**

Scientists who study earthquakes	**Transverse earthquake waves that cause the ground to vibrate side-to-side, perpendicular to the direction of travel; S-waves travel through solids, but not liquids or gases (ESRT)**
A science that deals with earthquakes	**The loose material created by the weathering of rock (ESRT)**
a mineral that contains silicon and oxygen	**Rocks that form as a result of the compression and cementing of weathered rock fragments or shells of once-living animals (ESRT)**
A form of precipitation that consists of rain drops that freeze before they reach the ground; also known as ice pellets. Unlike hail, sleet does not require violent winds aloft (ESRT)	**A scale for measuring the magnitude of an earthquake based on the total energy released by the earthquake**
A mixture of fog and air pollution particles, especially smoke from the burning of fossil fuels	**An instrument that measures the magnitude of earthquakes**

snow showers	**solution**
soil	**sorting**
soil horizons	**source region**
solar noon	**species**
solar time	**specific heat**

The method by which dissolved solids are carried in water	**Periods of snowfall of short duration. (ESRT)**
The separation of particles of sediment as a result of differences in their shape, density, or size	**A mixture of weathered rock and the remains of living organisms in which plants can grow**
The location in which an air mass originated	**The layers of a mature soil**
A group of organisms so similar that they can breed to produce fertile offspring	**The time at which the sun reaches its highest point in the sky**
The energy needed to raise the temperature of 1 gram of a substance 1 Celsius degree (ESRT)	**Time based on observations of when the sun reach its highest point and crosses a north-south line through the sky**

spring	**stream system**
spring tides	**stress**
stratosphere	**striations**
streak	**subduction zone**
stream	**summer solstice**

All the streams that drain a particular geographic area	**a place where groundwater flows onto the surface of the ground**
Force that tends to distort rock, resulting in slow bending	**The largest tidal range, which occurs when Earth, the sun, and the moon are in a line with one another (not related to Earth's seasons)**
Parallel scratches in bedrock that were made by rocks transported by glaciers	**The layer of Earth's atmosphere directly above the troposphere, in which the temperature increases with increasing altitude (ESRT)**
A region in which Earth's crust is destroyed as it is pulled down into the mantle (ESRT)	**The color of the powdered form of a mineral (ESRT)**
The name generally applied to the day of the year with the longest period of sunlight. (For observers in the Northern Hemisphere, this occurs near June 21. The Northern Hemisphere summer solstice occurs when the vertical rays of the sun are at the Tropic of Cancer. In the Southern Hemisphere, the summer solstice occurs in December when the vertical rays of the sun are at the Tropic of Capricorn.)	**Flowing water, such as a brook, river, or even an ocean current**

superposition	**temperature**
surf zone	**terminal moraine**
suspension	**terrestrial coordinates**
tectonics	**terrestrial planet**
temperate climate	**texture**

A measure of the average kinetic energy of the molecules in a substance (ESRT)	**The concept that, unless rock layers have been moved, each layer is older than the layer above it and younger than the layer below it**
Irregular, hilly deposits of till formed where a glacier stopped advancing and began to melt back	**An area on the shore that extends from where the waves' base touches the ocean bottom to the upper limit the waves reach on the beach**
Coordinates based on Earth's system of latitude and longitude	**The method by which small particles that settle very slowly are carried by water**
A planets whose composition is similar to Earth's (ESRT)	**Large-scale motions of Earth's crust that are responsible for uplift and mountain building (ESRT)**
The surface characteristics of a rock that are the result of size, shape, and arrangement of mineral grains (ESRT)	**A climate that has large seasonal changes in temperature**

thermometer	**till**
thermosphere	**topographic map**
thunderstorm	**transform boundary**
tidal range	**transpiration**
tides	**transported soil**

Unsorted sediments deposited by a glacier	**An instrument used to measure temperature**
An isoline map on which the isolines, called contour lines, connect places having the same elevation	**The highest layer of Earth's atmosphere, located directly above the mesosphere, in which temperature rises with increasing altitude (ESRT)**
A place where two lithospheric plates move past each other without creating new lithosphere or destroying old lithosphere (ESRT)	**A rainstorm that produces thunder, lightning, strong winds and sometimes hail (ESRT)**
The process by which plants release water vapor to the atmosphere, largely through pores in their leaves	**The difference between the lowest water level and the highest water level**
Soil that formed in one location and was moved to another location	**The twice- (or once-) daily cycle of change in sea level caused by the gravitational influence of the moon and sun on Earth's oceans**

travel time	**troposphere**
tributary	**tsunami**
Tropic of Cancer	**unconformity**
Tropic of Capricorn	**uniformitarianism**
tropical air mass	**urbanization**

The lowest layer of Earth's atmosphere, in which temperature decreases with increasing altitude (ESRT)	**The time between the breaking of the rocks that causes an earthquake and when the event is detected at a given location. (ESRT)**
A series of waves caused by an earthquake or underwater landslide that can cause damage and loss of lives in coastal locations	**A stream that flows into a larger stream**
A buried erosion surface that represents a gap in the record of Earth's history	**The greatest latitude north of the equator reached by the sun's vertical ray; 23.5°N**
The concept that the geological processes that took place in the past are similar to those that occur now	**The greatest latitude south of the equator reached by the sun's vertical ray; 23.5°S**
The development of heavily populated areas	**A large body of warm air that originated close to the equator (ESRT)**

valley glaciers	**vertical sorting**
vaporization	**vesicular**
velocity	**volcanic**
vent	**volcano**
vertical rays	**water table**

Within a layer of sediment, the gradual change in sediment size from bottom (large) to top (small) showing the order in which particles settled; graded bedding	**Glaciers that begin in high mountain areas and flow through valleys to lower elevations**
Rocks that contain gas pockets, or vesicles (ESRT)	**The change in state from liquid to gas (vapor) at any temperature (ESRT)**
Fine-grained, extrusive igneous rocks (ESRT)	**Speed; change in distance divided by change in time; sometimes velocity is used to include both speed and direction.**
An opening in Earth's surface through which molten magma (lava) erupts	**A place where lava comes to the surface**
The upper limit of the underground zone of saturation or the top surface on an aquifer	**Sunlight that strikes Earth's surface at an angle of 90°**

watershed	**zone of aeration**
weather	**zone of saturation**
weathering	
winter solstice	
zenith	

The part of the rock and soil in which air fills most of the available spaces	**The geographic area drained by a particular river or stream; drainage basin**
The part of the rock and soil where all available spaces are filled with water	**The short-term conditions of Earth's atmosphere at a given time and place (ESRT)**
	The change in rocks that occurs when they are exposed to conditions at Earth's surface
	The name generally applied to the day of the year with the shortest period of sunlight. (For observers in the Northern Hemisphere, this occurs near December 22. The Northern Hemisphere winter solstice occurs when the vertical rays of the sun are at the Tropic of Capricorn. In the Southern Hemisphere, the winter solstice occurs in June when the vertical rays of the sun are at the Tropic of Cancer.)
	The point in the sky directly over an observer's head