

1st Quarter Vocabulary

Word	Definition
absolute dating	any method of measuring the age of an event or object in years
acid precipitation	rain, sleet, or snow that contains a high concentration of acids
biomass	plant material, manure, or any other organic matter that is used as an energy source
cast	a type of fossil that forms when sediments fill in the cavity left by a decomposed organism
catastrophism	a principle that states that geologic change occurs suddenly
chemical energy	the energy released when a chemical compound reacts to produce new compounds
cleavage	in geology, the tendency of a mineral to split along specific planes of weakness to form smooth, flat surfaces
coal	a fossil fuel that forms underground from partially decomposed plant material
composition	the chemical makeup of a rock; describes either the minerals or other materials in the rock
compound	a substance made up of atoms of two or more different elements joined by chemical bonds
crystal	a solid whose atoms, ions, or molecules are arranged in a definite pattern
density	the ratio of the mass of a substance to the volume of the substance
deposition	the process in which material is laid down
element	a substance that cannot be separated or broken down into simpler substances by chemical means
eon	the largest division of geologic time
epoch	a subdivision of geologic time that is longer than an age but shorter than a period

era	a unit of geologic time that includes two or more periods
erosion	the process by which wind, water, ice, or gravity transports soil and sediment from one location to another
extinction	the death of every member of a species
extrusive igneous rock	rock that forms from the cooling and solidification of lava at Earth's surface
foliated	describes the texture of metamorphic rock in which the mineral grains are arranged in planes or bands
fossil	the trace or remains of an organism that lived long ago, most commonly preserved in sedimentary rock
fossil fuel	a nonrenewable energy resource formed from the remains of organisms that lived long ago; examples include oil, coal, and natural gas
fracture	the manner in which a mineral breaks along either curved or irregular surfaces
gasohol	a mixture of gasoline and alcohol that is used as a fuel
geologic column	an ordered arrangement of rock layers that is based on the relative ages of the rocks and in which the oldest rocks are at the bottom
geologic time scale	the standard method used to divide Earth's long natural history into manageable parts
geothermal energy	the energy produced by heat within Earth
half-life	the time required for half of a sample of a radioactive isotope to break down by radioactive decay to form a daughter isotope
hardness	a measure of the ability of a mineral to resist scratching
hydroelectric energy	electrical energy produced by the flow of water

index fossil	a fossil that is used to establish the age of a rock layer because the fossil is distinct, abundant, and widespread and the species that formed that fossil existed for only a short span of geologic time
intrusive igneous rock	rock formed from the cooling and solidification of magma beneath Earth's surface
isotope	an atom that has the same number of protons (or the same atomic number) as other atoms of the same element do but that has a different number of neutrons (and thus a different atomic mass)
luster	the way in which a mineral reflects light
mineral	a naturally occurring, inorganic solid with a definite chemical composition and a crystalline structure
mold	A cavity in rock where a plant or animal was buried
natural gas	a mixture of gaseous hydrocarbons located under the surface of Earth, often near petroleum deposits; used as a fuel
natural resource	any natural material that is used by humans, such as water, petroleum, minerals, forests, and animals
nonfoliated	describes the texture of metamorphic rock in which the mineral grains are not arranged in planes or bands
nonrenewable resource	a resource that forms at a rate that is much slower than the rate at which the resource is consumed
nonsilicate mineral	a mineral that does not contain compounds of silicon and oxygen
nuclear energy	the energy released by a fission or fusion reaction; the binding energy of the atomic nucleus

ore	a natural material whose concentration of economically valuable minerals is high enough for the material to be mined profitably
Paleontology	the scientific study of fossils
period	in geology, a unit of geologic time that is longer than an epoch but shorter than an era
petroleum	a liquid mixture of complex hydrocarbon compounds, used widely as a fuel source
radioactive decay	the process in which a radioactive isotope tends to break down into a stable isotope of the same element or another element
radiometric dating	a method of determining the absolute age of an object by comparing the relative percentages of a radioactive (parent) isotope and a stable (daughter) isotope
reclamation	the process of returning land to its original condition after mining is completed
recycling	the process of recovering valuable or useful materials from waste or scrap; the process of reusing some items
relative dating	any method of determining whether an event or object is older or younger than other events or objects
renewable resource	a natural resource that can be replaced at the same rate at which the resource is consumed
rock	a naturally occurring solid mixture of one or more minerals or organic matter
rock cycle	the series of processes in which rock forms, changes from one type to another, is destroyed, and forms again by geologic processes
silicate mineral	a mineral that contains a combination of silicon and oxygen and that may also contain one or more metals
smog	photochemical haze that forms when sunlight acts on industrial pollutants and burning fuels

solar energy	the energy received by Earth from the sun in the form of radiation
strata	layers of rock (singular, stratum)
stratification	the process in which sedimentary rocks are arranged in layers
streak	the color of a mineral in powdered form
superposition	a principle that states that younger rocks lie above older rocks if the layers have not been disturbed
texture	the quality of a rock that is based on the sizes, shapes, and positions of the rock's grains
trace fossil	a fossilized structure, such as a footprint or a coprolite, that formed in sedimentary rock by animal activity on or within soft sediment
unconformity	a break in the geologic record created when rock layers are eroded or when sediment is not deposited for a long period of time
uniformitarianism	a principle that geologic processes that occurred in the past can be explained by current geologic processes
wind power	the movement of air caused by differences in air pressure