

Name \_\_\_\_\_ Date \_\_\_\_\_

# ROCKS & MINERALS VOCABULARY

- \_\_\_\_\_ 1. chemical properties
  - \_\_\_\_\_ 2. neutron
  - \_\_\_\_\_ 3. proton
  - \_\_\_\_\_ 4. physical properties
  - \_\_\_\_\_ 5. electron
- a. negatively charged subatomic particle
  - b. characteristics that describe how a substance reacts with other substances to form new substances
  - c. characteristics that can be observed without changing the composition of the substance
  - d. subatomic particle without charge
  - e. positively charged subatomic particle

\_\_\_\_\_ 1. alloy

\_\_\_\_\_ 2. compound

\_\_\_\_\_ 3. solution

\_\_\_\_\_ 4. mixture

\_\_\_\_\_ 5. atom

a. the smallest unit of an element that maintains all of the element's chemical properties

b. two or more substances that are not combined chemically

c. a substance made of two or more chemically bound elements

d. a solution of two or more metals

e. two or more substances uniformly dispersed in a mixture

- \_\_\_\_\_ 1. chemical properties
  - \_\_\_\_\_ 2. ion
  - \_\_\_\_\_ 3. isotope
  - \_\_\_\_\_ 4. neutron
  - \_\_\_\_\_ 5. electron
  - \_\_\_\_\_ 6. unified atomic mass unit (u)
  - \_\_\_\_\_ 7. physical properties
  - \_\_\_\_\_ 8. atomic number
  - \_\_\_\_\_ 9. proton
  - \_\_\_\_\_ 10. mass number
- a. the number of protons in the nucleus of an atom
  - b. the sum of the number of protons and neutrons in an atom
  - c. subatomic particle that has a positive charge
  - d. unit of measure for the mass of subatomic particles
  - e. atom or molecule that has a negative or positive charge
  - f. characteristics that describe how a substance reacts with other substances to make new substances
  - g. characteristics that can be observed without changing the substance
  - h. subatomic particle that has no charge, located in the nucleus
  - i. subatomic particle that has a negative charge
  - j. atom with the same number of protons but a different number of neutrons as other atoms of the same element

- |       |                  |  |
|-------|------------------|--|
| _____ | 1. neutron       | a. homogeneous mixture of two or more substances uniformly dispersed throughout the mixture              |
| _____ | 2. proton        | b. number of protons in the nucleus of an atom   |
| _____ | 3. isotope       | c. atom or molecule that has gained or lost electrons  |
| _____ | 4. solution      | d. number of protons and neutrons in the nucleus of an atom  |
| _____ | 5. molecule      | e. subatomic particle without charge   |
| _____ | 6. compound      | f. two or more chemically bonded elements  |
| _____ | 7. electron      | g. negatively charged subatomic particle   |
| _____ | 8. mass number   | h. smallest unit of matter that retains chemical properties  |
| _____ | 9. atomic number | i. positively charged subatomic particle   |
| _____ | 10. ion          | j. atom with the same number of protons but a different number of neutrons as other atoms of the element |

\_\_\_\_\_ 1. ring silicates

\_\_\_\_\_ 2. sheet silicates

\_\_\_\_\_ 3. framework silicates

\_\_\_\_\_ 4. single-chain silicates

\_\_\_\_\_ 5. isolated tetrahedral  
silicates

a. tetrahedra that do not link with other silicon or oxygen atoms

b. tetrahedra link together in a chain

c. tetrahedra share three oxygen atoms

d. tetrahedra link together in a circle

e. each tetrahedron bonds to four tetrahedra

\_\_\_\_\_ 1. luster

a. the manner in which a mineral breaks into irregular, uneven surfaces

\_\_\_\_\_ 2. fracture

b. the tendency of a mineral to split to form smooth, flat surfaces

\_\_\_\_\_ 3. streak

c. the way a mineral's surface reflects light

\_\_\_\_\_ 4. cleavage

d. the color of a mineral in powdered form

\_\_\_\_\_ 5. hardness

e. the measure of the ability of a mineral to resist scratching

- |       |                  |   |
|-------|------------------|---|
| _____ | 1. fracture      | a. the way in which a mineral reflects light                              |
| _____ | 2. streak        | b. the tendency of a mineral to form smooth, flat surfaces along breaks   |
| _____ | 3. radioactivity | c. the ability of a mineral to glow under ultraviolet light               |
| _____ | 4. density       | d. the color of a mineral in powdered form                                |
| _____ | 5. magnetism     | e. the way in which a mineral breaks along irregular or curved surfaces   |
| _____ | 6. chatoyancy    | f. the cat's-eye effect in minerals                                       |
| _____ | 7. cleavage      | g. the ratio of mass to volume in a substance                             |
| _____ | 8. fluorescence  | h. the appearance of a six-sided star shape when a mineral reflects light |
| _____ | 9. luster        | i. the decay of a mineral's unstable atomic nuclei over time              |
| _____ | 10. asterism     | j. the ability of a mineral to attract iron                               |



- |       |                |   |
|-------|----------------|---|
| _____ | 1. nonsilicate | a. ability of a mineral to resist scratching  |
| _____ | 2. streak      | b. mineral that contains silicon and oxygen atoms   |
| _____ | 3. luster      | c. mineral that does not contain silicon and oxygen compounds                               |
| _____ | 4. cleavage    | d. ratio of a substance's mass to its volume  |
| _____ | 5. fracture    | e. color of a mineral in powdered form  |
| _____ | 6. density     | f. mineral's most visible property, but a less reliable way to identify it                  |
| _____ | 7. mineral     | g. tendency of a mineral to break and form uneven, irregular surfaces                       |
| _____ | 8. silicate    | h. way that a mineral reflects light  |
| _____ | 9. color       | i. tendency of a mineral to split and form flat, smooth surfaces                            |
| _____ | 10. hardness   | j. usually inorganic solid with characteristic chemical composition and physical properties |

**magma**  
**specific gravity**  
**streak**

**crystal**  
**silicates**  
**minerals**

**cleavage**  
**fracture**  
**gem**

**hardness**  
**luster**  
**ore**

1. Halite, diamond, and graphite are examples of \_\_\_\_\_.
2. A(n) \_\_\_\_\_ is a solid in which the atoms are arranged in repeating patterns.
3. Minerals that contain silicon (Si) and oxygen (O) are called \_\_\_\_\_.
4. One of the properties of minerals is \_\_\_\_\_, which measures how easily a mineral can be scratched.
5. \_\_\_\_\_ refers to the color left behind when a mineral is rubbed across an unglazed porcelain plate.
6. \_\_\_\_\_ describes how light reflects from a mineral's surface.
7. Amethyst is the \_\_\_\_\_ form of quartz.
8. Minerals that break along smooth, flat surfaces have \_\_\_\_\_.
9. Some crystals are formed from hot melted rock called \_\_\_\_\_.
10. Minerals that break with an uneven, rough, or jagged surface have \_\_\_\_\_.
11. Gold's \_\_\_\_\_ is 17, meaning that it is 17 times heavier than an equal volume of water.
12. Iron is obtained from its \_\_\_\_\_, hematite.

magnetite

**a.** light yellow color; metallic luster; greenish-black streak

pyrite

**b.** light color; fingernail will scratch it; leaves thick, powdery streak

talc

calcite

**c.** black color; black streak; dull metallic luster; is attracted to magnets

gold

**d.** yellow color; scratched by copper penny; often found in flakes

**e.** glassy luster; hardness of 3

- |       |  |                |
|-------|--|----------------|
| _____ | 1. naturally occurring, inorganic solid with a definite chemical composition and an orderly arrangement of atoms | a. crystal     |
| _____ | 2. salt formed by the natural evaporation of seawater  | b. crystalline |
| _____ | 3. describes atoms arranged in a pattern over and over   | c. eight       |
| _____ | 4. a solid in which the atoms are arranged in an orderly, repeating pattern                                      | d. evaporation |
| _____ | 5. melted rock that forms crystals   | e. five        |
| _____ | 6. the part of a solution that evaporates, leaving a mineral   | f. halite      |
| _____ | 7. the process, in a dry climate, where the solution leaves the mineral  | g. magma       |
| _____ | 8. number of common elements in Earth's crust  | h. mineral     |
| _____ | 9. group of rocks forming minerals that contain silicon and oxygen   | i. oxygen      |
| _____ | 10. two most abundant elements in Earth's crust  | j. silicon     |
|       |  | k. silicate    |
|       |  | l. water       |

**cleavage**

**color**

**fracture**

**hardness**

**luster**

**specific gravity**

**streak**

**texture**

Geologists use physical properties to identify minerals. For example, the **(1)** \_\_\_\_\_ of a mineral is caused by the presence of different trace elements. The way a mineral reflects light from its surface is called **(2)** \_\_\_\_\_, which is described as metallic or nonmetallic. How a mineral feels to the touch is called **(3)** \_\_\_\_\_. A mineral's **(4)** \_\_\_\_\_ is the color of a mineral when it is broken up and powdered. A measure of how easily a mineral can be scratched is called **(5)** \_\_\_\_\_.

Another property describes how a mineral will break. If a mineral splits easily and evenly along one or more planes, it has the property of **(6)** \_\_\_\_\_, while minerals that break along jagged edges are said to have **(7)** \_\_\_\_\_. The density of a mineral is usually expressed as **(8)** \_\_\_\_\_, which is the ratio of the weight of a substance to the weight of an equal volume of water at 4°C.

\_\_\_\_\_ 1. igneous rock

\_\_\_\_\_ 2. sedimentary rock

\_\_\_\_\_ 3. metamorphic rock

\_\_\_\_\_ 4. rock cycle

\_\_\_\_\_ 5. Bowen's reaction series

a. rock that forms when existing rock is altered

b. rock that forms when magma or molten rock cools and hardens

c. the simplified pattern that illustrates the order in which minerals crystallize from cooling magma according to their chemical composition and melting point

d. the series of processes in which rock forms, changes from one type to another, is destroyed, and forms again by geological processes

e. rock that forms when deposits of sediment are cemented, compressed, and hardened

\_\_\_\_\_ 1. igneous rock

\_\_\_\_\_ 2. intrusive igneous rock

\_\_\_\_\_ 3. extrusive igneous rock

\_\_\_\_\_ 4. felsic

\_\_\_\_\_ 5. mafic

a. rock that forms from the cooling and solidification of magma beneath Earth's surface

b. magma or igneous rock that is rich in feldspars and silica and is generally light in color

c. magma or igneous rock that is rich in magnesium and iron and is generally dark in color

d. rock that forms when magma cools and solidifies

e. rock that forms from the cooling and solidification of lava at Earth's surface

\_\_\_\_\_ 1. compaction

\_\_\_\_\_ 2. cementation

\_\_\_\_\_ 3. chemical  
sedimentary rock

\_\_\_\_\_ 4. organic  
sedimentary rock

\_\_\_\_\_ 5. clastic sedimentary  
rock

a. rock that forms from the remains of plants or animals

b. the process in which the volume and porosity of a sediment are decreased by the weight of overlying sediments

c. rock that forms when minerals precipitate from a solution or settle from a suspension

d. the process in which minerals precipitate into pore spaces between sediment grains and bind them to form rock

e. rock formed from compacted or cemented fragments of preexisting rocks



\_\_\_\_\_ 1. nonfoliated

\_\_\_\_\_ 2. contact  
metamorphism

\_\_\_\_\_ 3. metamorphism

\_\_\_\_\_ 4. foliation

\_\_\_\_\_ 5. regional  
metamorphism

- a. a change in the texture, structure, or chemical composition of a rock due to changes in temperature and pressure over a large area
- b. a rock texture in which mineral grains are not arranged in planes or bands
- c. a rock texture in which mineral grains are arranged in planes or bands
- d. a change in the texture, structure, or chemical composition of a rock due to contact with magma
- e. the process in which one type of rock changes into another because of chemical processes or changes in temperature or pressure

- |       |                                 |  |
|-------|---------------------------------|--|
| _____ | 1. clastic<br>sedimentary rock  | a. the process in which one type of rock<br>changes into metamorphic rock because of<br>chemical processes or changes in temperature<br>and pressure                     |
| _____ | 2. Bowen's reaction<br>series   | b. rock that forms from the cooling and<br>solidification of lava at Earth's surface   |
| _____ | 3. intrusive<br>igneous rock    | c. the simplified pattern that illustrates the order<br>in which minerals crystallize from cooling<br>magma according to their chemical<br>composition and melting point |
| _____ | 4. chemical<br>sedimentary rock | d. rock that forms when minerals precipitate<br>from a solution or settle from a suspension  |
| _____ | 5. extrusive<br>igneous rock    | e. rock that forms when rock fragments are<br>compacted and cemented together  |
| _____ | 6. cementation                  | f. the process in which the volume and porosity<br>of a sediment are decreased by the weight of<br>overlying sediments as a result of burial<br>beneath other sediments  |
| _____ | 7. organic<br>sedimentary rock  | g. rock formed from the cooling and<br>solidification of magma beneath Earth's<br>surface  |
| _____ | 8. compaction                   | h. the process in which minerals precipitate into<br>pore spaces between sediment grains and<br>bind sediments together to form rock                                     |
| _____ | 9. metamorphism                 | i. the series of processes in which rock forms<br>and changes by geological processes  |
| _____ | 10. rock cycle                  | j. sedimentary rock that forms from the<br>remains of animals or plants  |

- |       |                            |   |
|-------|----------------------------|---|
| _____ | 1. cementation             | a. rock that forms when existing rock is altered by heat, pressure, or chemical processes   |
| _____ | 2. igneous rock            | b. rock that forms from the cooling and solidification of magma beneath Earth's surface   |
| _____ | 3. extrusive igneous rock  | c. rock that forms when mineral deposits are compressed or cemented together and hardened   |
| _____ | 4. metamorphic rock        | d. the series of processes in which rock forms, changes from one type to another, is destroyed, and forms again by geological processes                         |
| _____ | 5. metamorphism            | e. rock that forms from the cooling and solidification of lava at Earth's surface   |
| _____ | 6. Bowen's reaction series | f. rock that forms when magma cools and hardens   |
| _____ | 7. compaction              | g. the process in which minerals precipitate into pore spaces between sediment grains and bind to form rock   |
| _____ | 8. intrusive igneous rock  | h. the process in which the volume and porosity of a sediment are decreased by the weight of overlying sediments  |
| _____ | 9. sedimentary rock        | i. the process in which one type of rock changes into another because of chemical processes or changes in temperature or pressure                               |
| _____ | 10. rock cycle             | j. the simplified pattern that illustrates the order in which minerals crystallize from cooling magma according to their chemical composition and melting point |

**Directions:** Draw a line between the description on the left and the correct term on the right.

- |   |                  |
|---|------------------|
| 4. has two kinds: intrusive and extrusive   | nonfoliated rock |
| 5. does not have distinct layers or bands   | foliated rock    |
| 6. has distinct bands of minerals that have been heated and squeezed into parallel layers | igneous rock     |
| 7. sedimentary rock formed from living matter that has died and been compressed           | chemical rock    |
| 8. sedimentary rock formed from the evaporation of a solution                             | rock cycle       |
| 9. a diagram of rock processes  | organic rock     |

- \_\_\_\_\_ **1.** Occurs when rocks come into contact with molten rock
- \_\_\_\_\_ **2.** Rock whose texture, mineralogy, or chemical composition has been altered without melting it
- \_\_\_\_\_ **3.** Metamorphism resulting from high temperature and pressure that affects a large region
- \_\_\_\_\_ **4.** Large crystals of new metamorphic minerals
- \_\_\_\_\_ **5.** Occurs when very hot water reacts with rock
- \_\_\_\_\_ **6.** Characterized by wavy layers and bands of light and dark minerals
- \_\_\_\_\_ **7.** Composed mainly of minerals with blocky crystal shapes

- a.** contact metamorphism
- b.** foliated metamorphic rock
- c.** nonfoliated metamorphic rock
- d.** metamorphic rock
- e.** hydrothermal metamorphism
- f.** porphyroblasts
- g.** regional metamorphism

- \_\_\_\_\_ 1. marble
  - \_\_\_\_\_ 2. metamorphic
  - \_\_\_\_\_ 3. foliated
  - \_\_\_\_\_ 4. nonfoliated
  - \_\_\_\_\_ 5. rock cycle
  - \_\_\_\_\_ 6. sediment
  - \_\_\_\_\_ 7. gneiss
- a. nonfoliated metamorphic rock
  - b. consisting of layers of different minerals
  - c. a model of the way rocks change form
  - d. pieces of rock deposited by wind, ice, gravity, or water
  - e. metamorphic rock having a uniform consistency
  - f. having a changed or different form
  - g. foliated metamorphic rock

- |   |                       |
|---|-----------------------|
| 1. a type of metamorphic rock in which mineral grains grow and rearrange but do not form layers                       | metamorphic rocks     |
| 2. a type of organic sedimentary rock formed from the pieces of dead plants   | foliated rock         |
| 3. rocks formed by changes in temperature and pressure or the presence of hot, watery fluids                          | coal                  |
| 4. sedimentary rocks such as halite that are formed when minerals come out of solution                                | nonfoliated rock      |
| 5. sedimentary rocks such as sandstone that are formed from broken fragments of other rocks                           | chalk                 |
| 6. a type of organic sedimentary rock made of the mineral calcite and formed largely from the shells of ocean animals | detrital rocks        |
| 7. rocks formed when sediments are pressed and cemented together or when minerals form from solutions                 | chemical rocks        |
| 8. a type of metamorphic rock in which mineral grains flatten and line up in parallel layers                          | stacked rocks         |
| 9. sedimentary rock in which the older rocks, unless disrupted, are on the bottom                                     | sedimentary rocks     |
| 10. an organic sedimentary rock made of microscopic shells  | fossil-rich limestone |

**metamorphic rocks**

**marble**

**gneiss**

**foliated rocks**

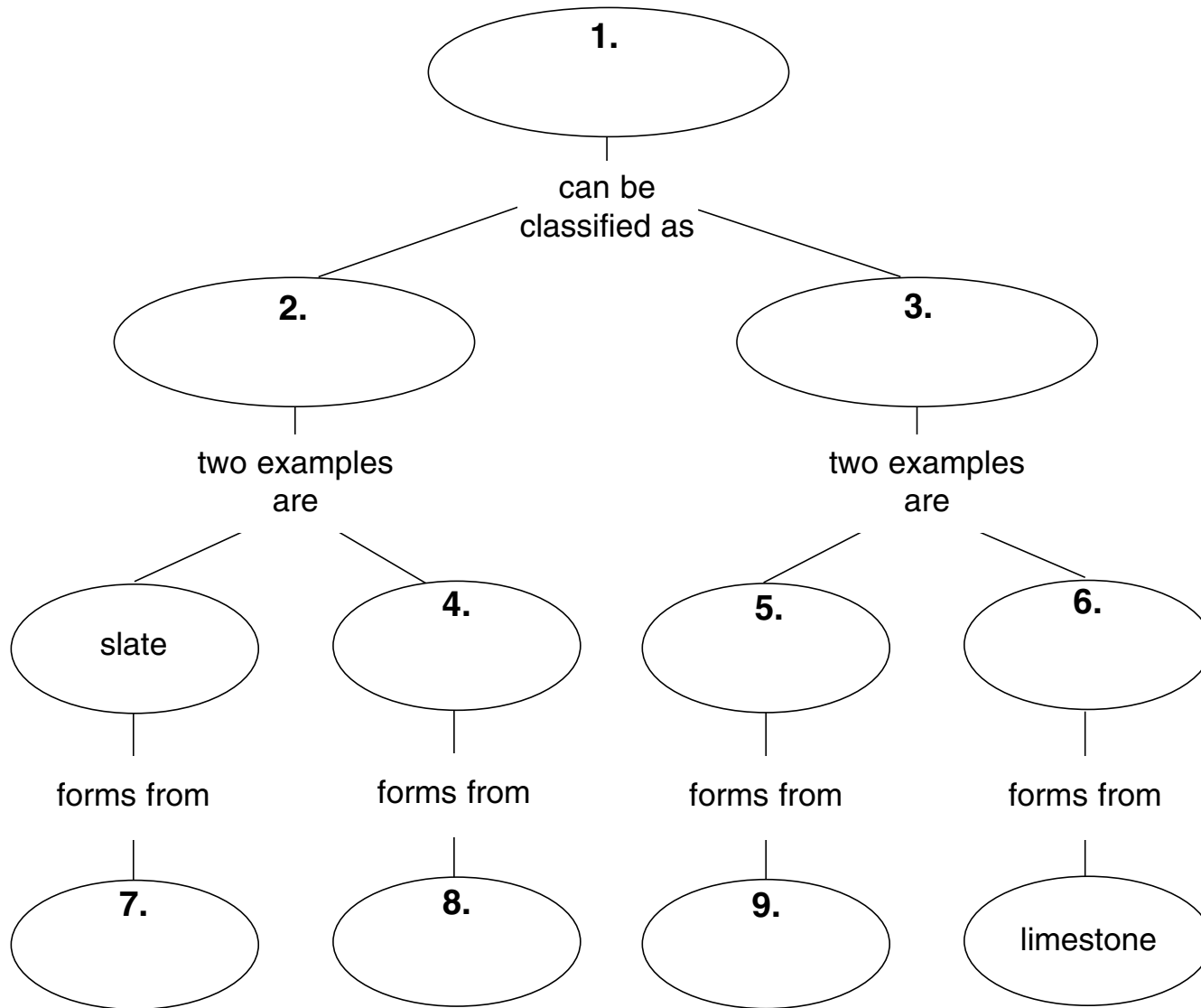
**quartzite**

**shale**

**nonfoliated rocks**

**sandstone**

**granite**





- \_\_\_\_\_ 1. a mixture of minerals, volcanic glass, organic material, or other materials
- \_\_\_\_\_ 2. illustrates the processes that create and change rocks
- \_\_\_\_\_ 3. formed when particles and bits of rock are cemented together
- \_\_\_\_\_ 4. formed when heat, pressure, or fluids act on other types of rock and affect their composition
- \_\_\_\_\_ 5. formed when hot magma cools and hardens (may be intrusive or extrusive rock)
- \_\_\_\_\_ 6. rock fragments, mineral grains, or organic remains that have been moved by wind, water, ice, or gravity
- \_\_\_\_\_ 7. principle that illustrates chemical elements from minerals and rocks are not lost or destroyed, but changed to a new form
- \_\_\_\_\_ 8. location where scientists first recognized the rock cycle

- a. conservation of matter
- b. igneous rock
- c. James Hutton
- d. metamorphic rock
- e. Mt. Rushmore, South Dakota
- f. rock
- g. rock cycle
- h. sediments
- i. sedimentary rock
- j. Siccar Point, Scotland
- k. volcanic

**extrusive**

**igneous rock**

**intrusive**

**lava**

**magma**

- 1.** Molten rock inside Earth's crust is called \_\_\_\_\_.
- 2.** A(n) \_\_\_\_\_ is formed from the crystallization of magma.
- 3.** Magma that flows out onto Earth's surface is called \_\_\_\_\_.
- 4.** Fine-grained igneous rocks that cool quickly on Earth's surface are called \_\_\_\_\_ igneous rocks.
- 5.** Coarse-grained igneous rocks that cool slowly beneath Earth's surface are called \_\_\_\_\_ igneous rocks.

- |       |  |                       |
|-------|--|-----------------------|
| _____ | <b>1.</b> Rock such as peridotite, which has low silica content and very high levels of iron and magnesium       | <b>a.</b> felsic      |
| _____ | <b>2.</b> Rock with two different-sized grains of the same mineral   | <b>b.</b> mafic       |
| _____ | <b>3.</b> Rock such as gabbro, which is dark-colored, has low silica content, and is rich in iron and magnesium. | <b>c.</b> ultramafic  |
| _____ | <b>4.</b> Vein of extremely large-grained minerals   | <b>d.</b> porphyritic |
| _____ | <b>5.</b> Rare type of ultramafic rock that can contain diamonds   | <b>e.</b> pegmatite   |
| _____ | <b>6.</b> Rock such as granite, which is light-colored and has high silica content                               | <b>f.</b> kimberlite  |

**cementation**

**chemical weathering**

**clastic sediments**

**deposition**

**lithification**

**physical weathering**

**sedimentary rock**

**sorted deposits**

**sediment**

**unsorted deposits**

1. \_\_\_\_\_ consists of solid material that has been deposited on Earth's surface by wind, water, ice, gravity, or chemical precipitation.
2. Glaciers and landslides tend to create \_\_\_\_\_ in which sediments of different sizes are mixed together.
3. During \_\_\_\_\_, the minerals in a rock are dissolved or otherwise chemically changed.
4. The process by which mineral growth binds sediment grains together into solid rock is \_\_\_\_\_.
5. Weathering produces \_\_\_\_\_, which are rock and mineral fragments.
6. When sediments become cemented together, they form \_\_\_\_\_.
7. As a result of \_\_\_\_\_, sediments are laid down on the ground or on the bottom of bodies of water.
8. The physical and chemical process called \_\_\_\_\_ transforms sediments into sedimentary rocks.
9. During \_\_\_\_\_, minerals remain chemically unchanged, and rock fragments simply break off of the solid rock along fractures or grain boundaries.
10. Sediments tend to form \_\_\_\_\_ when transported by water and wind.

Complete the table by filling in the type of sedimentary rock described: *clastic*, *organic*, or *chemical*.

Description	Type of Sedimentary Rock
1. Breccias and conglomerates are examples.	
2. Classified by particle size	
3. Coal is an example.	
4. Formed from the remains of once-living things	
5. Formed from deposits of loose sediments	
6. Often contains calcite, halite, or gypsum	
7. Forms evaporites	
8. Sandstone is a medium-grained example.	
9. Formed from precipitation and growth of mineral crystals	
10. Formed from the shells of sea organisms	

\_\_\_\_\_ 1. nodule

a. narrow zone of minerals precipitated from a hydrothermal solution

\_\_\_\_\_ 2. ore

b. lump of minerals on the deep-ocean floor

\_\_\_\_\_ 3. gemstone

c. mineral deposit made up of many thick mineral veins in a rock formation

\_\_\_\_\_ 4. vein

d. mineral deposit from which metals and nonmetals can be removed profitably

\_\_\_\_\_ 5. lode

e. rare nonmetallic mineral valued for its brilliance and color

- \_\_\_\_\_ 1. petroleum
  - \_\_\_\_\_ 2. fossil fuel
  - \_\_\_\_\_ 3. anthracite
  - \_\_\_\_\_ 4. crude oil
  - \_\_\_\_\_ 5. bituminous coal
- a. the hardest form of coal
  - b. fossil fuel made of liquid hydrocarbons
  - c. natural resource formed from the remains of organisms that lived millions of years ago
  - d. the most abundant type of coal
  - e. unrefined petroleum

\_\_\_\_\_ 1. solar energy

\_\_\_\_\_ 2. biomass

\_\_\_\_\_ 3. hydroelectric energy

\_\_\_\_\_ 4. geothermal energy

\_\_\_\_\_ 5. wind energy

a. plant material and other organic matter used as an energy source

b. electrical energy produced by the movement of air over Earth's surface

c. energy received by Earth from the sun in the form of radiation

d. electrical energy produced by the flow of water

e. energy produced by heat within Earth



\_\_\_\_\_ 1. reclamation

\_\_\_\_\_ 2. recycling

\_\_\_\_\_ 3. conservation

a. the process of using materials more than once

b. the process of returning mined land to its original condition

c. the preservation and wise use of natural resources

- |       |                         |  |
|-------|-------------------------|--|
| _____ | 1. biomass              | a. has interconnected spaces through which liquids can flow              |
| _____ | 2. ore                  | b. used in an active solar energy system                                 |
| _____ | 3. geothermal energy    | c. comes from organic matter such as plant material and paper waste      |
| _____ | 4. solar collector      | d. contains metals and nonmetals that can be mined profitably            |
| _____ | 5. fossil fuel          | e. energy produced by heat within Earth                                  |
| _____ | 6. hydroelectric energy | f. lumps of minerals on the deep-ocean floor                             |
| _____ | 7. anthracite           | g. is composed of liquid hydrocarbons                                    |
| _____ | 8. permeable rock       | h. is the hardest form of coal   |
| _____ | 9. nodule               | i. is produced by running water  |
| _____ | 10. petroleum           | j. formed from the remains of organisms that lived millions of years ago |

- |       |                          |  |
|-------|--------------------------|--|
| _____ | 1. solar energy          | a. preservation and wise use of natural resources  |
| _____ | 2. fossil fuels          | b. plant or other organic material used as an energy source                                |
| _____ | 3. conservation          | c. electrical energy produced by the flow of water   |
| _____ | 4. ore                   | d. ore deposit made up of mineral veins  |
| _____ | 5. recycling             | e. energy received by Earth from the sun in the form of radiation                          |
| _____ | 6. biomass               | f. deposits of a dense, valuable mineral in the bottom of a stream bed                     |
| _____ | 7. lode                  | g. natural resources formed from the remains of organisms that lived millions of years ago |
| _____ | 8. geothermal energy     | h. mineral deposit from which metals and nonmetals can be profitably removed               |
| _____ | 9. placer deposit        | i. process of using materials more than once   |
| _____ | 10. hydroelectric energy | j. energy produced by heat within Earth  |

<b>hydroelectric</b>	<b>pollution</b>	<b>nonrenewable</b>	<b>geothermal</b>	<b>ore</b>
<b>groundwater</b>		<b>solar</b>	<b>point source</b>	<b>nuclear</b>
<b>conservation</b>	<b>fossil fuels</b>	<b>renewable</b>	<b>acid rain</b>	<b>nonpoint source</b>

- \_\_\_\_\_ 1. resources that cannot be replaced within 100 years
- \_\_\_\_\_ 2. water that collects between bits of rock and soil
- \_\_\_\_\_ 3. energy resources formed from decaying remains of ancient plants and animals
- \_\_\_\_\_ 4. energy from the Sun
- \_\_\_\_\_ 5. energy produced by splitting atomic nuclei
- \_\_\_\_\_ 6. heat energy from Earth
- \_\_\_\_\_ 7. introduction of harmful substances into the environment
- \_\_\_\_\_ 8. electricity produced using water
- \_\_\_\_\_ 9. a single, identifiable source of pollution
- \_\_\_\_\_ 10. produced when gases from burning coal and oil mix with water vapor that then condenses
- \_\_\_\_\_ 11. type of resource that wind is
- \_\_\_\_\_ 12. pollution from many different sources
- \_\_\_\_\_ 13. a profitable mineral resource
- \_\_\_\_\_ 14. the careful use of resources

**acid rain**

**electrical**

**energy**

**fossil fuels**

**lignite**

**nonrenewable**

**oceans**

**pollution**

**nuclear**

**swamps**

1. Resources that cannot be replaced by natural processes in less than 100 years are \_\_\_\_\_.
2. When gases released by burning coal and oil mix with water in the form of precipitation, \_\_\_\_\_ forms.
3. The coal we use today formed in \_\_\_\_\_ millions of years ago.
4. Energy resources formed from the decaying remains of ancient plants and animals are called \_\_\_\_\_.
5. The main sources of energy for homes and factories in the United States are \_\_\_\_\_ power plants.
6. \_\_\_\_\_ is a type of soft, brown coal.
7. \_\_\_\_\_ can change the temperature, speed, or direction of an object.
8. The introduction of harmful chemicals, waste products, and other substances into our environment is called \_\_\_\_\_.

- \_\_\_\_\_ 1. the careful use of resources with the goal of reducing damage to the environment
- \_\_\_\_\_ 2. method of forest conservation in which a limited number of trees are cut down and new trees planted in their place
- \_\_\_\_\_ 3. the place where an organism lives
- \_\_\_\_\_ 4. a mineral resource in quantity enough that it can be mined at a profit
- \_\_\_\_\_ 5. method of forest harvesting in which all the trees in a specific area are cut down
- \_\_\_\_\_ 6. a type of resource found in rocks
- \_\_\_\_\_ 7. a rise in temperatures around the world

- a. habitat
- b. global warming
- c. mineral
- d. conservation
- e. ore
- f. select cutting
- g. clear-cutting

*Match each description to its term. The terms will be used more than once.*

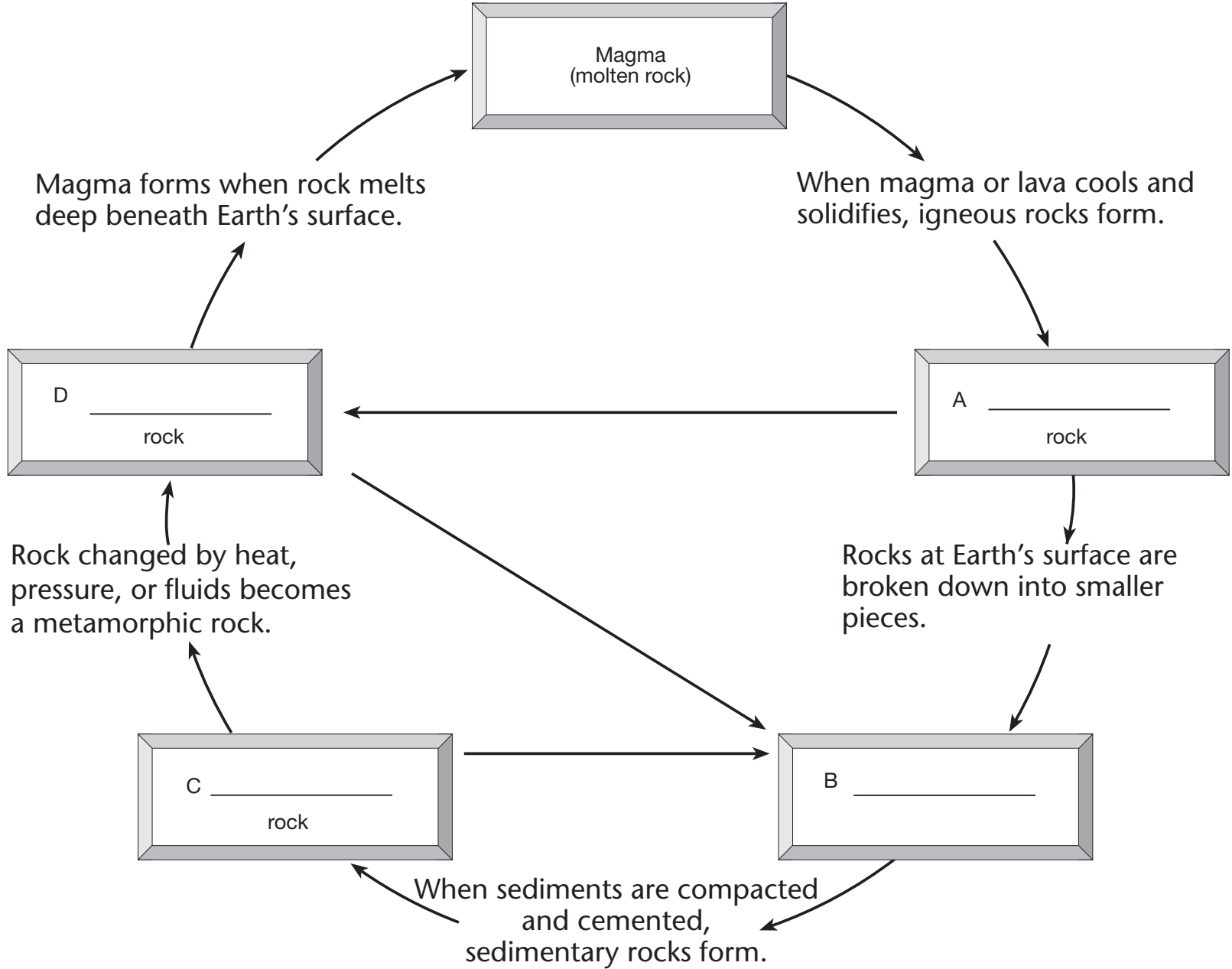
**Description**

**Term**

- \_\_\_\_\_ 2. takes place when magma intrudes rock
- \_\_\_\_\_ 3. produces high-grade metamorphism
- \_\_\_\_\_ 4. produces low-grade metamorphism
- \_\_\_\_\_ 5. changes in rock are minor
- \_\_\_\_\_ 6. results in large-scale deformation
- \_\_\_\_\_ 7. forms marble
- \_\_\_\_\_ 8. occurs during mountain building

- a. contact metamorphism
- b. regional metamorphism

metamorphic      sedimentary      sediment      igneous





- \_\_\_\_\_ 1. the meaning of the Latin word *ignis*
- \_\_\_\_\_ 2. rocks that form when magma hardens beneath Earth's surface
- \_\_\_\_\_ 3. rocks that form when lava hardens
- \_\_\_\_\_ 4. melted material beneath Earth's surface
- \_\_\_\_\_ 5. melted material at Earth's surface
- \_\_\_\_\_ 6. an intrusive igneous rock that forms when magma cools slowly beneath Earth's surface
- \_\_\_\_\_ 7. an extrusive igneous rock that forms when lava cools quickly at Earth's surface
- a. magma
- b. granite
- c. intrusive igneous
- d. lava
- e. rhyolite
- f. fire
- g. extrusive igneous

- \_\_\_\_\_ 1. a process that squeezes, or compacts, sediments
- \_\_\_\_\_ 2. involves weathering and the removal of rock
- \_\_\_\_\_ 3. takes place when dissolved minerals are deposited in the tiny spaces among the sediments
- \_\_\_\_\_ 4. when sediments are dropped by water, wind, ice, or gravity

- a. cementation
- b. deposition
- c. compaction
- d. erosion

chemical

clastic

sandstone

rock salt

<b>Type of Rock</b>	<b>Forms from</b>	<b>Examples</b>
	weathered bits of rocks and minerals	shale,
	dissolved minerals that precipitate from water solution	limestone,