

# Earth Resources

## SECTION 25.1 *What are resources?*

*In your textbook, read about natural resources and renewable and nonrenewable resources.*

Answer the following questions.

1. What is a renewable resource?

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2. What is a nonrenewable resource?

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Put a check (✓) in the column to indicate whether a resource is renewable or nonrenewable.

Natural Resource	Renewable	Nonrenewable
3. Air		
4. Aluminum		
5. Chickens		
6. Carbon		
7. Coal		
8. Copper		
9. Diamond		
10. Elephants		

Natural Resource	Renewable	Nonrenewable
11. Trees		
12. Freshwater		
13. Gold		
14. Petroleum		
15. Phosphorus		
16. Solar energy		
17. Soil		

*In your textbook, read about the distribution of resources.*

For each statement below, write *true* or *false*.

- \_\_\_\_\_ 18. Natural resources are evenly distributed on Earth.
- \_\_\_\_\_ 19. Availability of natural resources helps determine a country's wealth and power.
- \_\_\_\_\_ 20. A country's standard of living has no relationship to its resource consumption.
- \_\_\_\_\_ 21. The United States has 6 percent of the world's population and annually consumes about 30 percent of the mineral and energy resources.

**SECTION 25.2** *Land Resources**In your textbook, read about protected land.***Answer the following questions.**

1. Name three types of public land in the United States.

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2. Name four responsibilities of the national park system.

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3. Name three things protected by a national wildlife refuge.

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*In your textbook, read about soil, bedrock, and aggregate.***Use the words below to complete the table. You may use each word more than once.**

soil

bedrock

aggregate

Natural Resource	Description
4. _____	Used in making concrete
5. _____	Loss in arid areas can lead to desertification
6. _____	Mixture of gravel, sand, and crushed stone that accumulates on or near Earth's surface
7. _____	Large pieces used to build monuments and fireplaces
8. _____	Takes up to 1000 years to produce just a few centimeters
9. _____	Unweathered inorganic material that lies underneath soil

*In your textbook, read about ores, other land resources, and using land resources.***Use each of the terms below to complete the statements.**

igneous rocks

hydrothermal fluids

ore

placer deposits

10. A natural resource is considered to be a(n) \_\_\_\_\_ if it can be mined at a profit.
11. Chromium and platinum form in \_\_\_\_\_ when minerals crystallize and settle.
12. Copper and gold deposits are metallic ore deposits that come from \_\_\_\_\_.
13. Sand and gravel bars called \_\_\_\_\_ may contain gold nuggets and gold dust.

**SECTION 25.3 Air Resources**

In your textbook, read about the origin of oxygen and disrupting Earth's cycles.

Answer the following questions.

1. What percentage of the atmosphere is oxygen?

\_\_\_\_\_

2. Why is oxygen so important to life on Earth?

\_\_\_\_\_

3. What two human activities are thought to cause global warming?

\_\_\_\_\_

4. What causes acid precipitation?

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

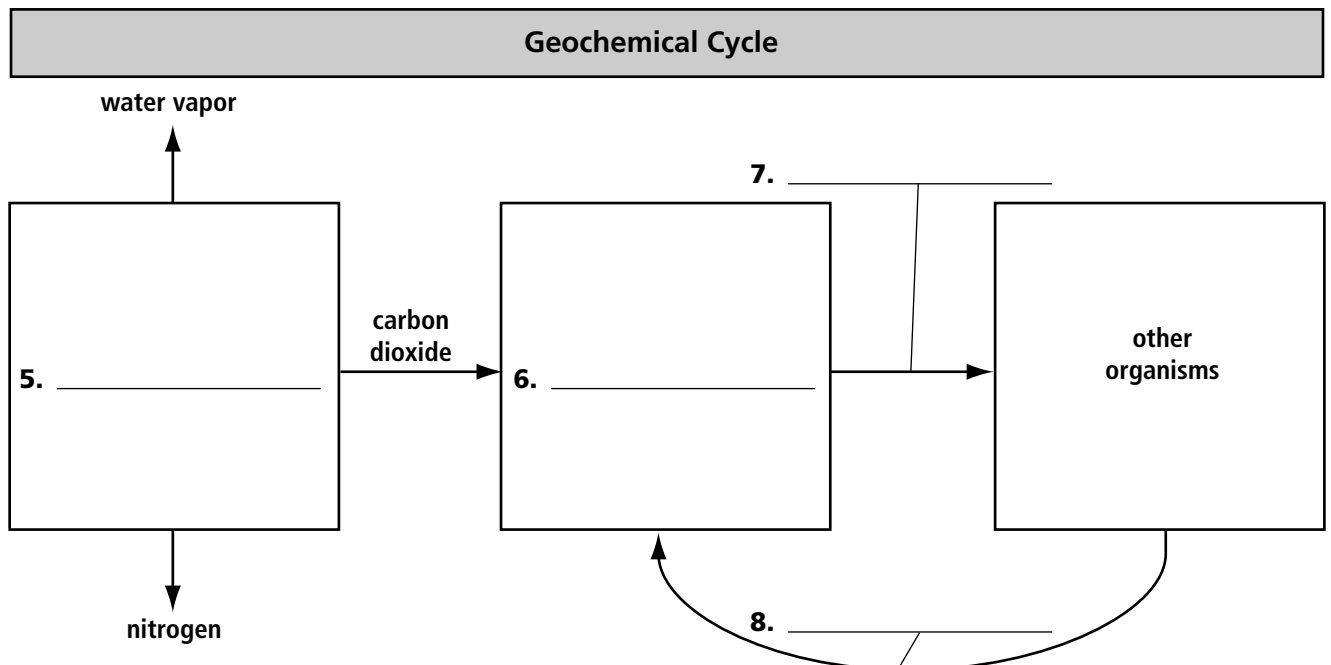
Use the words below to complete the geochemical cycle.

oxygen

carbon dioxide

volcanic eruptions

photosynthetic organisms



**SECTION 25.3** *Air Resources, continued*

*In your textbook, read about sources of air pollution and outdoor and indoor air pollution.*  
**Answer the following questions.**

**9.** What are two natural sources of air pollution?

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**10.** What is one of the biggest sources of air pollution?

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**11.** Why is carbon monoxide an air pollutant?

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**12.** Name four ways pollutants are changed or affected in the atmosphere.

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**13.** What is a “sick building”?

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**14.** What is radon-222? Is it a potential outdoor or indoor pollutant?

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**SECTION 25.4** *Water Resources*

*In your textbook, read about the importance of water.*

**For each statement below, write *true* or *false*.**

- \_\_\_\_\_ 1. About 27 percent of Earth's surface is covered with water.
- \_\_\_\_\_ 2. The oceans help regulate climate and clean up pollutants.
- \_\_\_\_\_ 3. Most animals are about 30 percent water by weight.
- \_\_\_\_\_ 4. Water can exist as a liquid over a wide range of temperatures because of the hydrogen bonds between its molecules.
- \_\_\_\_\_ 5. Polar bonds form when the positive ends of water molecules are attracted to the negative ends of other water molecules.
- \_\_\_\_\_ 6. Water boils at 200°C and freezes at 0°C.
- \_\_\_\_\_ 7. Liquid water can store a large amount of heat without a correspondingly high change in temperature.
- \_\_\_\_\_ 8. Perspiration from your skin is a heating mechanism that depends on water's properties.
- \_\_\_\_\_ 9. Living things depend on water to act as a solvent to carry nutrients into cells and wastes out of cells.
- \_\_\_\_\_ 10. Diffusion of water enables a cell to maintain internal pressure.
- \_\_\_\_\_ 11. Water concentrates water-soluble human waste products.
- \_\_\_\_\_ 12. Unlike most liquids, water shrinks when it freezes.
- \_\_\_\_\_ 13. Freezing water contributes to weathering of rocks.
- \_\_\_\_\_ 14. Ponds and streams freeze from the bottom up.

**SECTION 25.4 Water Resources, continued**

*In your textbook, read about the location, use, and management of freshwater resources.*

**Circle the letter of the choice that best completes the statement or answers the question.**

- 15.** In the United States, freshwater is most likely to be scarce
- a.** in rural areas in the East.
  - b.** in large cities in the West.
  - c.** along seacoasts.
  - d.** on the Great Plains.
- 16.** On which continent has drought had serious effects on the most people?
- a.** Australia
  - b.** North America
  - c.** Africa
  - d.** South America
- 17.** For what is most freshwater used?
- a.** irrigation
  - b.** household use
  - c.** power-plant cooling
  - d.** industrial processes
- 18.** Which method of water control affects the most freshwater resources?
- a.** dams and reservoirs
  - b.** aqueducts
  - c.** wells
  - d.** desalination plants
- 19.** A drawdown well may run dry when
- a.** the withdrawal rate of the aquifer exceeds the recharge rate.
  - b.** saltwater intrudes.
  - c.** there is too much precipitation.
  - d.** the water is too hard.
- 20.** How does desalination make freshwater out of salt water?
- a.** by precipitating the salt from the water and skimming off the salt
  - b.** by heating the water until it evaporates, leaving the salts behind
  - c.** by pressurizing the water and filtering the salt out at high pressure
  - d.** by using solar energy to pump freshwater from the ocean bottom
- 21.** What seems to be the most practical way to reduce the demand on freshwater?
- a.** Get freshwater from icebergs.
  - b.** Stop irrigating crops.
  - c.** Ban ornamental lawns and gardens.
  - d.** Use water supplies more efficiently.