

Skills Worksheet

Concept Review**MATCHING**

In the space provided, write the letter of the term or phrase that best matches the description.

- | | |
|--|----------------------------|
| _____ 1. ground-level ozone | a. primary pollutant |
| _____ 2. scrubber | b. secondary pollutant |
| _____ 3. radon gas | c. indoor air pollution |
| _____ 4. nitrogen oxides | d. pollution control |
| _____ 5. decreased pH | e. acid precipitation |
| _____ 6. possible long-term effect of air pollution | f. temperature inversion |
| _____ 7. necessary to control acid precipitation | g. lung cancer |
| _____ 8. atmospheric condition trapping pollution | h. deafness |
| _____ 9. possible short-term effect of air pollution | i. international agreement |
| _____ 10. possible long-term effect of noise pollution | j. nausea |

MULTIPLE CHOICE

In the space provided, write the letter of the term or phrase that best completes each statement or best answers each question.

- | | |
|--|--|
| _____ 11. Which of the following is an example of a primary pollutant? | _____ 12. Which of the following would be a potential cause of sick-building syndrome? |
| a. ground-level ozone | a. acid precipitation |
| b. soot from smoke | b. smog |
| c. radon | c. fungi |
| d. All of the above | d. all of the above |

Concept Review *continued*

- _____ **13.** Catalytic converters, scrubbers, and electrostatic precipitators are examples of
- technologies used to treat sick-building syndrome.
 - technologies used to counteract the effects of acid precipitation on aquatic ecosystems.
 - technologies used to capture radon gas.
 - technologies used to control pollution emissions.
- _____ **14.** During a temperature inversion,
- sulfur oxides and nitrogen oxides combine with water in the atmosphere.
 - an influx of acidic water causes a rapid change in the pH of water.
 - levels of ground-level ozone decrease.
 - pollutants are trapped near Earth's surface.
- _____ **15.** What is *not* a consequence of acid precipitation?
- an increase in the pH of soil and water
 - the death of aquatic plants and animals
 - the destruction of calcium carbonate in building materials
 - a change in the balance of soil chemistry
- _____ **16.** High blood pressure and stress are both human health effects linked to
- smog.
 - air pollution.
 - light pollution.
 - noise pollution.
- _____ **17.** Oil refineries and gasoline stations are both sources of
- particulate matter.
 - volatile organic compounds.
 - smog.
 - All of the above
- _____ **18.** Uranium-bearing rocks underneath a house can be a source of
- ozone.
 - asbestos.
 - radon.
 - formaldehyde.
- _____ **19.** An increase in the pH of a lake would most likely indicate
- the lake suffers from acid shock.
 - calcium carbonate has been released into the lake.
 - the area in which the lake is located suffers from acid precipitation.
 - higher than average sulfur oxide levels in the atmosphere.
- _____ **20.** Acid precipitation is formed when
- sulfur oxides or nitrogen oxides combine with water.
 - sulfur oxides combine with nitrogen oxides.
 - ozone combines with automobile exhaust.
 - nitric or sulfuric acids combine with ozone.

Assessment

Quiz

12-1

Section: What Causes Air Pollution?

MATCHING

In the space provided, write the letter of the term or phrase that best matches the description.

- | | |
|--|--------------------------|
| _____ 1. have no emissions from tailpipes or gasoline | a. primary pollutant |
| _____ 2. results from chemical reactions involving sunlight, air, exhaust, and ozone | b. ZEVs |
| _____ 3. scrubbers and electrostatic precipitators help industries meet the requirements of this | c. smog |
| _____ 4. put directly into the air by human activity | d. temperature inversion |
| _____ 5. a source of air pollution before modern times | e. Clean Air Act |
| _____ 6. atmospheric condition that traps pollution near the ground | f. sea-coal |

MULTIPLE CHOICE

In the space provided, write the letter of the term or phrase that best completes each statement or best answers each question.

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|---|---|
| _____ 7. Which is a secondary air pollutant?
a. ozone
b. carbon monoxide
c. particulate matter
d. nitrogen oxides | _____ 9. Which device helps clean car exhaust?
a. electrostatic precipitator
b. scrubber
c. catalytic converter
d. ZEV |
| _____ 8. Volatile organic compounds
a. are tiny particles of liquid or solid matter.
b. are produced by chemical interactions between sulfur and oxygen.
c. are an odorless, colorless poisonous gas.
d. are organic chemicals that form toxic fumes. | _____ 10. Which pair below are the two main sources of air pollution in urban areas?
a. vehicles, volcanoes
b. vehicles, industries
c. industries, agriculture
d. none of the above |

Assessment

Quiz 12-2

Section: Air, Noise, and Light Pollution

MATCHING

In the space provided, write the letter of the term or phrase that best matches the description.

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|--|--|
| _____ 1. causes stress, high blood pressure, hearing loss | a. indoor air pollution |
| _____ 2. solutions include shielding, time controls, and low-pressure sodium sources | b. sick-building syndrome |
| _____ 3. emphysema, lung cancer, heart disease | c. light pollution |
| _____ 4. can occur in tightly sealed buildings | d. noise pollution |
| _____ 5. sources include plastics, carpets, cleaning fluids, radon, and asbestos | e. long-term effects of air pollution |
| _____ 6. headache, eye irritation, coughing, bronchitis | f. short-term effects of air pollution |

MULTIPLE CHOICE

In the space provided, write the letter of the term or phrase that best completes each statement or best answers each question.

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|--|---|
| _____ 7. Which is a natural indoor air pollutant?
a. carbon monoxide
b. formaldehyde
c. nitrogen oxides
d. radon | _____ 9. Which is true of air pollution and human health?
a. Years of research link air pollution to lung diseases.
b. Air pollution is commonly listed as a cause of death.
c. None of the health effects of air pollution are reversible.
d. Healthy adults are most affected by air pollution. |
| _____ 8. Which is <i>not</i> part of correcting sick-building syndrome?
a. removing sources of indoor air pollution
b. sealing cracks where air leaks into the building
c. improving ventilation
d. cleaning air ducts | _____ 10. Which air pollutant scars the lungs?
a. asbestos
b. radon
c. fungi
d. ozone |

Assessment

Quiz 12-3

Section: Acid Precipitation

MATCHING

In the space provided, write the letter of the term or phrase that best matches the description.

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|--|---|
| _____ 1. measure of how acidic or basic a substance is | a. acid precipitation |
| _____ 2. an effect of acid precipitation on soil and water | b. acid shock |
| _____ 3. addresses acid precipitation falling downwind of source | c. acidification |
| _____ 4. caused by gases from fossil fuels | d. pH |
| _____ 5. aluminum | e. Canada-U.S. Air Quality Agreement |
| _____ 6. occurs most often in the spring | f. released by soil that is too acidic |

MULTIPLE CHOICE

In the space provided, write the letter of the term or phrase that best completes each statement or best answers each question.

- | | |
|--|--|
| _____ 7. Which has <i>not</i> been linked to acid precipitation?
a. toxic metal poisoning
b. lower blood pH
c. respiratory problems
d. damaged monuments | _____ 9. Which is <i>not</i> an effect of acid precipitation on aquatic ecosystems?
a. death of animals and plants
b. lower reproduction rates
c. suffocation of fish
d. increased growth of algae |
| _____ 8. Which is a cause of acid precipitation?
a. sulfur and nitrogen oxides
b. carbonic acid
c. high pH in rainfall
d. acid shock | _____ 10. Precipitation is considered acid if its pH is
a. above 7.0.
b. above 5.0.
c. below 5.0.
d. below 5.6. |

Skills Worksheet

Concept Review

MATCHING

In the space provided, write the letter of the term or phrase that best matches the description.

- | | |
|-----------------------------------|-----------------------|
| _____ 1. damaged rangeland | a. infrastructure |
| _____ 2. protected land | b. urbanization |
| _____ 3. purified water | c. deforestation |
| _____ 4. bridges | d. rural |
| _____ 5. low population density | e. wilderness |
| _____ 6. development | f. ecosystem services |
| _____ 7. clear-cutting | g. overgrazing |
| _____ 8. rangeland and urban land | h. human uses of land |

MULTIPLE CHOICE

In the space provided, write the letter of the word or statement that best answers the question or completes the sentence.

- _____ 9. Land that contains relatively few people and large areas of open space is considered
- a. rural.
 - b. urban.
 - c. suburban.
 - d. rangelands.
- _____ 10. All of the following is allowed in wilderness *except*
- a. research.
 - b. camping.
 - c. development.
 - d. fishing.
- _____ 11. The timber industry classifies forestlands into three categories called
- a. softwoods, hardwoods, and mixed woods.
 - b. pine, redwood, and mixed.
 - c. evergreen, deciduous, and mixed.
 - d. virgin forest, native forest, and tree farms.

Concept Review *continued*

- _____ **12.** A heat island can
- a.** affect weather patterns over a city.
 - b.** reduce the average temperatures in a city.
 - c.** absorb less heat than vegetation.
 - d.** have a lower temperature than the surrounding countryside.
- _____ **13.** Tree harvesting methods include
- a.** selective cutting.
 - b.** reforestation.
 - c.** clear-cutting.
 - d.** Both (a) and (c)
- _____ **14.** A fire station is an example of
- a.** infrastructure.
 - b.** suburbanization.
 - c.** land-use planning.
 - d.** renovation.
- _____ **15.** Which of the following is *not* a method of preventing overgrazing?
- a.** limiting herd size
 - b.** rotating the breed of cattle
 - c.** removing herds to allow vegetation to recover
 - d.** replanting native vegetation
- _____ **16.** Which of the following is *not* an environmental benefit of open spaces?
- a.** moderation of temperatures
 - b.** absorption of rainwater runoff
 - c.** provision of aesthetic value
 - d.** source of lumber for homes
- _____ **17.** Which of the following is a benefit of preserving farmland?
- a.** prime locations for home sites
 - b.** soil erosion protection
 - c.** productive land for growing crops
 - d.** a greenbelt for crowded urban areas
- _____ **18.** Which of the following uses the largest amount of land in the United States?
- a.** forestland
 - b.** rangeland and pasture
 - c.** cropland
 - d.** parks and preserves

Assessment

Quiz

Section: How We Use Land

MATCHING

In the space provided, write the letter of the term or phrase that best matches the description.

- | | |
|---|--------------------------|
| _____ 1. the mechanization of many jobs, which resulted in major population shifts from rural areas to urban areas | a. urban land |
| _____ 2. land that is used to graze livestock and wildlife | b. ecosystem services |
| _____ 3. land used for recreation and scenic enjoyment, and for preserving native animal and plant communities and ecosystems | c. rangeland |
| _____ 4. land used for harvesting wood, wildlife, fish, nuts, and other resources | d. rural land |
| _____ 5. relatively few people and large areas of open space | e. forestland |
| _____ 6. buildings, roads, houses, and industry | f. cropland |
| _____ 7. land used to grow plants for food and fiber | g. parks and preserves |
| _____ 8. resources produced by natural and artificial ecosystems | h. Industrial Revolution |

MULTIPLE CHOICE

In the space provided, write the letter of the term or phrase that best completes each statement or best answers each question.

- _____ 9. Why did most people live in rural areas before 1850?
- a. Most people depended upon agriculture.
 - b. Most people depended upon mining.
 - c. Most people depended upon hunting.
 - d. Most people worked in factories.
- _____ 10. The area of rural land needed to support one person depends upon
- a. climate.
 - b. occupant's standard of living.
 - c. efficient use of resources.
 - d. All of the above

Assessment

Quiz

Section: Urban Land Use

MATCHING

In the space provided, write the letter of the term or phrase that best matches the description.

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|---|----------------------------------|
| _____ 1. roads, sewers, transportation systems, schools, and hospitals | a. urbanization |
| _____ 2. increased temperature in a city due to generated and trapped heat | b. infrastructure |
| _____ 3. computerized system for sorting, manipulating, and viewing geographic data | c. urban sprawl |
| _____ 4. advanced decisions about how land will be used | d. heat island |
| _____ 5. movement of people from rural areas to cities | e. land-use planning |
| _____ 6. rapid expansion of a city into the surrounding countryside | f. geographic information system |

MULTIPLE CHOICE

In the space provided, write the letter of the term or phrase that best completes each statement or best answers each question.

- _____ 7. Detailed maps showing the locations of sewer lines, roads, and parks are possible with
- | | |
|----------|---------|
| a. GPN. | c. MAP. |
| b. TOPO. | d. GIS. |
- _____ 8. An area prone to landslides is an example of
- | | |
|----------------|-------------------|
| a. rangeland. | c. rural land. |
| b. open space. | d. marginal land. |
- _____ 9. Cities suffering from urban crisis may have
- | | |
|-------------------------|----------------------------|
| a. traffic jams. | c. polluted air and water. |
| b. substandard housing. | d. All of the above |
- _____ 10. Which improvement to urban areas moderates temperature, controls rainwater runoff, and adds aesthetic value?
- | | |
|-----------------|--------------------------|
| a. green spaces | c. public transportation |
| b. storm sewers | d. fountains |

Assessment

Quiz

Section: Land Management and Conservation

MATCHING

In the space provided, write the letter of the term or phrase that best matches the description.

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|---|--------------------------|
| _____ 1. an area protected from exploitation | a. overgrazing |
| _____ 2. Wyoming, Montana, and 1870 | b. deforestation |
| _____ 3. allowing more animals to graze in an area than the area can support | c. reforestation |
| _____ 4. planting trees to replace those cut down in a forest land | d. wilderness |
| _____ 5. clearing trees from an area without replacing them | e. Yellowstone |
| _____ 6. strips of protected land that connect one preserve to another preserve | f. conservation corridor |

MULTIPLE CHOICE

In the space provided, write the letter of the term or phrase that best completes each statement or best answers each question.

- _____ 7. Why is it important to preserve farmland?
- a. It provides an important oxygen source for urban areas.
 - b. It moderates the temperature of urban areas.
 - c. It provides crops and fruits to support urban and rural populations.
 - d. all of the above
- _____ 8. Which of the following is *not* a method of sustaining rangeland?
- a. limiting herd size
 - b. letting vegetation recover
 - c. digging one large water hole
 - d. killing invasive plants
- _____ 9. Which of the following is *not* an environmental effect of deforestation?
- a. reduction in wildlife habitat
 - b. soil erosion
 - c. loss of topsoil
 - d. re-establishment of trees
- _____ 10. Which items would *not* be allowed in a wilderness area?
- a. fishing gear
 - b. hiking gear
 - c. jet skis
 - d. camping gear