

## Skills Worksheet

**Concept Review****MATCHING**

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

- |  |   |
|--|---|
| _____ 1. fossil fuels                                      | a. Middle East                              |
| _____ 2. region with the most coal deposits                | b. fission and fusion                       |
| _____ 3. electric generator                                | c. oil, natural gas,<br>and coal            |
| _____ 4. site of world's worst nuclear reactor<br>accident | d. magnetic fields and<br>rotating turbines |
| _____ 5. nuclear energy                                    | e. gasoline and plastics                    |
| _____ 6. used in a nuclear reaction                        | f. Asia                                     |
| _____ 7. made from petroleum                               | g. uranium                                  |
| _____ 8. region with the most oil deposits                 | h. Chernobyl                                |
| _____ 9. used in nuclear fusion                            | i. Europe                                   |
| _____ 10. region with the most natural gas deposits        | j. deuterium and tritium                    |

**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 *not* a main use of fuel?
- |                   |                                  |
|-------------------|----------------------------------|
| a. transportation | c. heating and cooling buildings |
| b. manufacturing  | d. cooking                       |
- \_\_\_\_\_ 12. The energy in fossil fuels is often converted into
- |                     |                  |
|---------------------|------------------|
| a. electricity.     | c. uranium.      |
| b. magnetic fields. | d. power plants. |
- \_\_\_\_\_ 13. Which country uses the least amount of energy per person?
- |              |                  |
|--------------|------------------|
| a. Argentina | c. United States |
| b. Japan     | d. Canada        |
- \_\_\_\_\_ 14. Much of the oil and natural gas in the United States is located in
- |   |
|---|
| a. Alaska, Minnesota, New York, and Texas.            |
| b. Alaska, California, Michigan, and Nevada.          |
| c. Texas, Colorado, New York, and the Gulf of Mexico. |
| d. Alaska, Texas, California, and the Gulf of Mexico. |

**Concept Review** *continued*

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- \_\_\_\_\_ **15.** Most of the world's fossil fuel reserves are made up of
- a.** oil.
  - b.** natural gas.
  - c.** coal.
  - d.** waste rock.
- \_\_\_\_\_ **16.** Crude oil is another name for
- a.** fossil fuel.
  - b.** natural gas.
  - c.** petroleum.
  - d.** methane.
- \_\_\_\_\_ **17.** Internal combustion engines release
- a.** carbon dioxide into the atmosphere.
  - b.** nuclear waste into the atmosphere.
  - c.** iodized oil into the atmosphere.
  - d.** methane into the atmosphere.
- \_\_\_\_\_ **18.** Oil production is still increasing, but it
- a.** will start decreasing in the next year.
  - b.** is increasing much more dramatically than it did in the past.
  - c.** will start decreasing in the next five years.
  - d.** is increasing much more slowly than it did in the 1960s.
- \_\_\_\_\_ **19.** A large oil reserve
- a.** was discovered in Morocco in the year 2000.
  - b.** has not been discovered in the past decade.
  - c.** has only been discovered in Saudi Arabia.
  - d.** will probably be discovered on the moon.
- \_\_\_\_\_ **20.** Which of the following is *not* a consequence of using nuclear energy?
- a.** production of electricity
  - b.** reduction in the use of fossil fuels
  - c.** a safer environment for humans
  - d.** release of less radioactivity into the atmosphere than burning coal
- \_\_\_\_\_ **21.** Nuclear fusion and nuclear fission are different because
- a.** fusion releases no energy.
  - b.** fission is a consequence of fusion.
  - c.** nuclei unite during fusion and split during fission.
  - d.** fission does not produce nuclear waste.
- \_\_\_\_\_ **22.** Which of the following is *not* true?
- a.** Uranium-bearing rocks are in unlimited supply.
  - b.** Building and maintaining a safe reactor is very expensive.
  - c.** It is difficult to find a safe place to store nuclear waste.
  - d.** The fission process can get out of control.
- \_\_\_\_\_ **23.** The most serious nuclear accident in the United States occurred at
- a.** Chernobyl.
  - b.** Yucca Mountain.
  - c.** Diablo Canyon.
  - d.** Three Mile Island.

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

- |   |   |
|---|---|
| _____ 1. plant material, manure, and wood                                       | a. passive solar heating                  |
| _____ 2. uses collectors with moving parts to capture the sun's energy          | b. ocean thermal energy conversion (OTEC) |
| _____ 3. saves energy   | c. alternative energy                     |
| _____ 4. energy sources that are still in development                           | d. biomass fuel                           |
| _____ 5. energy produced from moving water                                      | e. fuel cell                              |
| _____ 6. uses the sun's energy to heat something directly, without moving parts | f. active solar heating                   |
| _____ 7. energy from heat in Earth's interior                                   | g. energy efficiency                      |
| _____ 8. uses low pressure and warm ocean water to boil colder ocean water      | h. energy conservation                    |
| _____ 9. percentage of energy that does useful work in a system                 | i. hydroelectric energy                   |
| _____ 10. uses hydrogen as an energy source                                     | j. geothermal energy                      |

**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. Wind, moving water, sunlight, and heat from Earth's interior are sources of
- |                        |                          |
|------------------------|--------------------------|
| a. alternative energy. | c. renewable energy.     |
| b. geothermal energy.  | d. ocean thermal energy. |
- \_\_\_\_\_ 12. Which of the following uses solar collectors to heat water?
- |                          |                       |
|--------------------------|-----------------------|
| a. passive solar heating | c. photovoltaic cells |
| b. active solar heating  | d. all of the above   |

**Concept Review** *continued*

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- \_\_\_\_\_ **13.** Which of the following is the fastest-growing source of energy in the world?
- a.** passive solar heating
  - b.** photovoltaic cells
  - c.** fuel cells
  - d.** wind power
- \_\_\_\_\_ **14.** Which of the following is a major source of biomass fuel in developing countries?
- a.** wood
  - b.** dung
  - c.** corn
  - d.** both (a) and (b)
- \_\_\_\_\_ **15.** A geothermal power plant gets energy by
- a.** pumping heated water or steam from rock formations.
  - b.** circulating fluid underground.
  - c.** holding water behind a dam.
  - d.** using methane from decomposition.
- \_\_\_\_\_ **16.** Tidal power, hydrogen fuel cells, and ocean thermal energy conversion are sources of
- a.** alternative energy.
  - b.** geothermal energy.
  - c.** nonrenewable energy.
  - d.** hydroelectric energy.
- \_\_\_\_\_ **17.** Which of the following descriptions of hybrid cars is correct?
- a.** Hybrid cars do not use gasoline engines.
  - b.** Hybrid cars have not been made yet.
  - c.** Hybrid cars are energy-efficient.
  - d.** Hybrid cars rely on biomass fuel.
- \_\_\_\_\_ **18.** Which of the following statements about hydrogen as a fuel source is correct?
- a.** The amount of hydrogen on Earth is too small to meet our fuel needs.
  - b.** Hydrogen can be burned as a fuel or used to produce electricity chemically.
  - c.** When hydrogen is burned, it releases pollutants.
  - d.** Generating hydrogen by burning fossil fuels is inexpensive.
- \_\_\_\_\_ **19.** Sunlight falls on a semiconductor, causing it to release electrons, in a
- a.** photovoltaic cell.
  - b.** fuel cell.
  - c.** battery.
  - d.** solar collector.
- \_\_\_\_\_ **20.** People can conserve energy in their daily lives by driving a vehicle
- a.** mostly for short distances.
  - b.** instead of taking a bus or train.
  - c.** with a large gas tank.
  - d.** that is fuel-efficient.