**Unit 6, Lesson 5 Review Quiz**

**Multiple Choice**

*Identify the choice that best completes the statement or answers the question.*

\_\_\_\_ 1. Many appliances in your home and school use electrical energy. Which of these appliances is intended to convert electrical energy into sound energy?

|  |  |
| --- | --- |
| A | printer |
| B | refrigerator |
| C | electric heater |
| D | music amplifier |

\_\_\_\_ 2. Every electrical appliance needs a source of electrical energy. Which of these could provide electrical energy?

|  |  |
| --- | --- |
| A | light bulb |
| B | electric heater |
| C | automobile battery |
| D | computer hard drive |

\_\_\_\_ 3. The picture below shows an appliance that people sometimes have in their homes. This appliance only works when it is plugged into an electric outlet.



Which energy transformation is the appliance intended to make?

|  |  |
| --- | --- |
| A | heat energy into motion energy |
| B | electrical energy into sound energy |
| C | energy of motion into sound energy |
| D | electrical energy into energy of motion |

\_\_\_\_ 4. The girl shown below is using an electrical appliance that has a motor.



Which energy transformation is she using?

|  |  |
| --- | --- |
| A | electrical energy into heat energy and energy of motion |
| B | electrical energy into sound energy and chemical energy |
| C | sound energy into electrical energy and energy of motion |
| D | energy of motion into electrical energy and sound energy |

\_\_\_\_ 5. You use energy transformations every day. Which of these is a way that you would use the transformation of electrical energy to motion energy?

|  |  |
| --- | --- |
| A | watching your favorite show on television |
| B | taking an elevator to the top of a tall building |
| C | listening to your MP3 player while you walk to school |
| D | turning on the lamp on your desk so you can see to do your homework |

\_\_\_\_ 6. Most of the electrical energy in the United States uses nonrenewable sources. It is important to conserve these energy sources because the supply is limited. Which of these is a nonrenewable source of electrical energy?

|  |  |
| --- | --- |
| A | coal |
| B | hydroelectric |
| C | solar |
| D | Wind |

\_\_\_\_ 7. The illustration below shows a large dam that is used to produce electricity. Water flows from the lake behind the dam to the river below the dam. It passes through turbines that are connected to electric generators.



Which energy transformation occurs in the hydroelectric power plant?

|  |  |
| --- | --- |
| A | heat energy into electrical energy |
| B | energy of motion into electrical energy |
| C | electrical energy into energy of motion |
| D | energy of motion and sound energy into electrical energy |

\_\_\_\_ 8. The diagram below shows a simple electromagnet.



What effect does decreasing the number of coils around the nail have on the strength of the electromagnet?

|  |  |
| --- | --- |
| A | It becomes weaker. |
| B | It becomes stronger. |
| C | It remains the same strength.  |
| D | It depends how many coils are removed.  |

**Short Answer**

 1. What energy transformation takes place when you listen to your battery-operated CD player?

 2. Give two examples of electrical energy being transformed into another type of energy. Tell what kind of energy is produced.

**Unit 6, Lesson 5 Review Quiz**

**Answer Section**

**MULTIPLE CHOICE**

 1. D

 2. C

 3. D

 4. A

 5. B

 6. A

 7. B

 8. A

**SHORT ANSWER**

 1. Sample answer: Electrical energy is transformed into sound energy.

Students’ answers should include:

• that it is electrical energy that is transformed

• that the transformation produces sound energy

 2. Sample answer: An electric heater transforms electrical energy into heat energy. An electric motor transforms electrical energy into energy of motion.

Students’ answers should include:

• that electrical energy is the source of each transformation and a specific source for each change

• what kind of energy is produced by each transformation