Read the passage on electrical energy and answer the questions that follow.

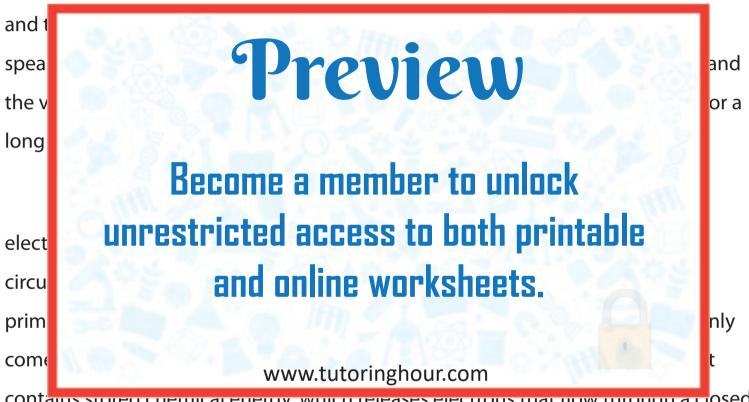
#### **Transforming Energy**

By Janine G. Wilson



Potential and kinetic energies are the two forms of mechanical energy. Kinetic energy is energy of motion, while potential energy is the stored energy in an object that is at rest. Potential energy can transform into kinetic energy, and kinetic energy can also transform into potential energy. When you kick a ball, the energy of position transforms into kinetic energy as the ball begins to roll, and when the ball comes to a stop, kinetic energy converts back into potential energy.

Electrical energy, or electricity, is the flow of charged particles called electrons. The flow of these particles creates a current that flows through wires inside of appliances and machines. Electricity is transformed into heat energy, light energy, sound energy, thermal energy, and mechanical energy of motion. When you turned on your television last night, electricity flowed across the circuit inside the television



contains stored chemical energy, which releases electrons that now through a closed circuit, transforming electricity into light and releasing some heat as wasted energy.

Who knew that using appliances and machines transformed electricity into so many different forms of energy? As you use these appliances, remember to be responsible and conserve energy.

1) Define electrical energy.

2) What are some forms of energy electrical energy can be transformed into?

## Preview

3)

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4) In the space below, draw a picture of an appliance or electronic device that has the following energy transformations:

electrical > light > sound

er

- 5) After a primary electrical energy transformation takes place, the other energy transformations can be described as \_\_\_\_\_\_ .
  - a) energy that can be destroyed
  - b) stored energy
  - c) mechanical energy

# Preview

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