

Name: _____ Section: _____
 Date : _____ Score: _____

TRANSFORMATION OF ENERGY

Energy Transformation on Electrical to Light Energy

The **Conservation of Energy** is the principle that energy can neither be created nor destroyed. It can only be converted from one form to another or transferred from one object to another. The energy transformation is applicable to all types of energy such as kinetic energy, potential energy, light energy, heat energy, sound energy, nuclear energy, and gravitational potential energy. Electrical energy is converted into heat energy and light energy in the electric bulb.

Transformation from Electricity to Sound to Heat

When we use a microphone, electricity is transformed to sound energy. The actual process happens when the microphone is plugged into a device which is powered by electric current, converting it to electric signals, then converting it to sound. The microphone picks up the sound waves produced by the voice of the singer or speaker, converts them to an electric signal, then an electronic device amplifies it, and converts it back to sound through an audio speaker for the audience to hear. Heat energy is the result of the movement of tiny particles called atoms; molecules or ions in solids, liquids, and gases. Heat energy can be transferred from one object to another. The transfer or flow due to the difference in temperature between the two objects is called heat.

Activity 1

Directions: Determine the pattern of energy transformation. Follow the given example. Write your answer on a separate sheet of paper.

Energy Converter	Energy Conversion
Example: Television	electrical light sound
1. electric fan	
2. hair straightener	
3. incandescent light bulb	
4. radio	
5. electric rice cooker	

Activity 2

Directions: Write the letter of the correct answer on a separate sheet of paper.

- Light travels through empty space and is transported through _____ waves.
 - electromagnetic waves
 - electron waves
 - magnetic waves
 - ocean waves
- How does solar panel work?
 - It converts sun's heat into electricity.
 - It converts sun's light into electricity.
 - It converts fossil fuel into electricity.
 - It converts light to chemical energy.
- Which is the other name for light energy?
 - electrical energy
 - heat energy
 - radiant energy
 - sun energy

Quarter:3,Week:4 Demonstrate how sound, heat, light and electricity can be transformed

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Science 6 Worksheet No.5

4. Which is the major source of light on Earth?
A. flashlight B. moon C. street lights D. sun
5. Which of the following shows the energy transformation that occurs when the solar panels are used to light the whole buildings?
A. light electrical C. light mechanical
B. light chemical D. light thermal

Activity 3

Directions: Directions: Group the examples in the box according to how the energy is transformed. Write your answers on a separate sheet of paper.

LED bulb	blender	radio	electric stove	flat iron	Christmas lights
electric bulb	fluorescent lamp	vacuum	microwave oven		
	oven toaster		electric guitar		

**ELECTRICAL ENERGY TO
HEAT ENERGY**

**ELECTRICAL ENERGY TO
LIGHT ENERGY**

**ELECTRICAL ENERGY TO
SOUND ENERGY**

Activity 4

Directions: Write the word **FACT** if the statement is correct and **BLUFF** if it is not.

- _____ 1. A television changes electrical energy into sound and light energy.
- _____ 2. An electric guitar changes heat energy to sound energy.
- _____ 3. A rice cooker changes heat energy to electrical energy,
- _____ 4. When you switch on your tablet, it changes heat to light energy.
- _____ 5. A light bulb changes electrical energy to light and heat energy.

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