NOTES: Conservation and Transformation

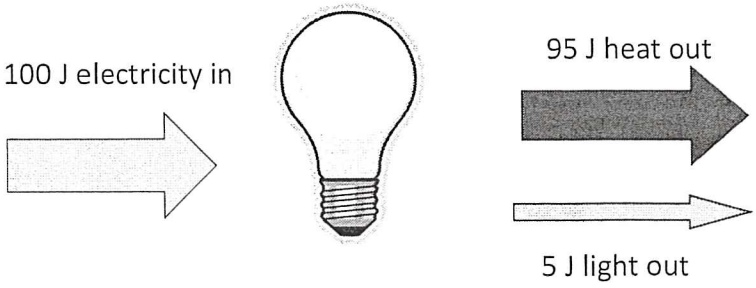
Law of Conservation of Energy:

Energy cannot be created or destroyed; it can only change forms

1. **Energy transfer:** the same form of energy moving from one object or system to another

Examples- raindrop hits a leaf and leaf moves (KE from ~~leaf~~ rain transferred to the leaf)
- plugging in your tv (electrical energy transfers from outlet to TV)
- hearing a drum (sound energy transfers from the drum to your ear)
- riding a bike. (kinetic energy transfers from legs to wheels)

2. **Transformation of Energy**: takes place when energy changes from one form to another.
   a. The total amount of energy in that system remains the same.
   b. Often, a lot of energy is lost to heat.



Examples--

computer – electrical → sound + light → heat

curling iron – electrical → heat

panda eating – radiant → chemical → heat + kinetic

Name _____ Date _____ Period _____

Energy Transformation Worksheet

Identify the different types of energy transformation in each of the pictures

1) Windmill
Energy Transformation:

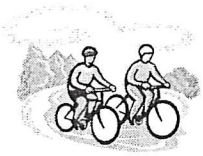
2) Flashlight
Energy Transformation:

3) Microwave

Energy Transformation:

4) Firecracker

Energy Transformation:



5) Bicycle

Energy Transformation:

6) Battery

Energy Transformation:

Give an example where the following energy changes would take place:

7) Electrical to Thermal-

8) Chemical to Thermal-

9) Electrical to Mechanical-

10) Radiant to Chemical-