

**Learning Target:** *I will be able to explain and demonstrate how energy is transformed from one form to another.*



### Energy Transformations Lab

Define the following terms:

Electrical energy \_\_\_\_\_

Thermal energy \_\_\_\_\_

Sound energy \_\_\_\_\_

Mechanical energy \_\_\_\_\_

Solar energy \_\_\_\_\_

Chemical energy \_\_\_\_\_

Nuclear energy \_\_\_\_\_

Magnetic energy \_\_\_\_\_

**Materials:**

Hair clippers, speakers, candy, pencil sharpener, hot plate, flashlight, power drill

**Procedure:**

1. Today you will be in groups of 3 and you will rotate from each energy transformation station.
2. As you rotate from station-to-station list in order the energy transformations that occur at each station.

| Materials                | Energy Transformations | Potential or Kinetic Energy |
|--------------------------|------------------------|-----------------------------|
| Plugged in hair clippers |                        |                             |
| Plugged in speakers      |                        |                             |
| Eating candy             |                        |                             |
| Pencil sharpener         |                        |                             |
| Plugged in Hot plate     |                        |                             |
| Flashlight turned on     |                        |                             |
| Power drill drilling     |                        |                             |

Lab Analysis Questions

1. How is the law of conservation of energy demonstrated in your lab? \_\_\_\_\_

\_\_\_\_\_

2. How is some of the energy lost at the lab stations? \_\_\_\_\_

\_\_\_\_\_

3. How would you alter this lab to help students better understand how energy is transformed from one form to another? \_\_\_\_\_

\_\_\_\_\_

4. Write a 5-sentence summary of how energy is transformed from one form to another. \_\_\_\_\_

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Scan to take Quiz

