

## Study Guide

Learning Target M.7: I can identify and give examples of energy transformations in a closed series circuit.

### Resources:

- Electricity and Magnetism textbook, Chapter 2.
- *Forms of Energy* Article
- "Cognitive Dictionary" Assignment

### Big Ideas:

- *Energy can never be created or destroyed, it only changes forms (transforms to different types).*
- *Circuits allow the flow of electrical energy.*
- *Circuits and resistors transform electrical energy into other forms of energy*

### **Define and provide examples of the following terms (Basic):**

electrical energy

circuit

conductor

insulator

energy source

resistor

wire

switch

series circuit

Law of Conservation of Energy

### **Identify energy transformations in a series circuit (Proficient)**

Identify the different forms of energy and the transformations they undergo (in the correct order) in a closed series circuit. Specifically identify the forms of energy in an energy source (battery), conductor (wire) and resistor (lightbulb).

There will be an optional advanced section on the quiz. You will have to apply properties of energy to something not explicitly discussed in the class room by answering an essay question.