Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Introduction to Energy Efficiency**

A Light bulb has the ability to transform electrical energy into two types of energy. What are they?

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Which type of energy can be considered as “useful” energy for the purpose of a light bulb?

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The mathematical unit for measuring energy is the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

Suppose 100J was supplied to the light bulb below from the wire, and **each block of energy provided represents 10J of energy.**

Draw the following situations:

* A light bulb that is 10% efficient:



Heat (Thermal energy)

Electrical Energy

Light (Radiant energy)

* A light bulb that is 50% efficient:



* A light bulb that is 90% efficient:



* A light bulb for which 20% of the energy is lost to the environment:

What would the energy efficiency be in this case?

