**SCIENCE 1st BGU**

**Mr. Juan Carlos Cisneros**

**Introduction to Energy Questionnaire**

**Classwork # 1**

**Instruction:** Read pages 100-109 in your Science Fusion and answer the following questions.

1. **In your own words, what is *energy*? Can an object have energy? Why, or why not?**
2. **What’s the difference between kinetic energy and potential energy?**
3. **Can an object have more than one type of energy at the same time? Use an example to explain your answer.**
4. **Give an example for each of the following:**
   1. **An object having potential energy due to its *position***
   2. **An object having potential energy due to its *condition***
   3. **An object having potential energy due to its *composition***
5. **Classify the following types of energy in kinetic energy or potential energy. Explain your answer.**

**Types of energy:** mechanical energy, sound energy, electromagnetic energy, electrical energy, chemical energy, thermal energy, nuclear energy

**Ex:** Sound energy is *kinetic energy* because it is caused by the movement of sound waves in a medium.

**Think of an example of the following energy transformations:**

1. **Kinetic energy to thermal energy**
2. **Potential energy to kinetic energy**
3. **Kinetic energy to sound energy**

**Ex:** An example of **chemical energy to heat energy** occurs when our body metabolizes food in order to use its (potential) chemical energy to perform daily tasks, releasing heat (thermal energy) in the process.

**9. What is the Law of Conservation of Energy?**

**10. Give an example explaining the First Law of Thermodynamics.**