**Name:**

**Date:**

**School:**

**Facilitator:**

7.03 Forms of Energy Lab

**Use the virtual lab presentation on the Task page to complete Parts 1 and 2 of this assignment. Then, complete Part 3 using what you’ve learned in the lesson and the virtual energy transformation activity.**

# ****Part 1: Defining Forms of Energy****

Energy can be classified into six general forms: chemical, mechanical, thermal, light, electrical, and nuclear. Define each form of energy below and provide an example of each form.

* Chemical energy:
  + Example of chemical energy:
* Mechanical energy:
  + Example of mechanical energy:
* Thermal energy:
  + Example of thermal energy:
* Light energy:
  + Example of light energy:
* Electrical energy:
  + Example of electrical energy:
* Nuclear energy:
  + Example of nuclear energy:

# Part 2: Energy Transformation Examples

**Use Part 2 of the virtual lab presentation on the Task page to evaluate some examples of energy transformations. You will be given 5 event sequences with 3 steps each. For each step in each sequence, you should identify the form of energy used.**

**Your answer choices are the 6 energy forms we’ve reviewed: chemical, electrical, light, mechanical, nuclear, and thermal.Add your answers to the table below.**

**Energy Sequence Table**

|  |  |  |  |
| --- | --- | --- | --- |
| **Sequence Number** | **Step 1**  **Energy Form** | **Step 2**  **Energy Form** | **Step 3**  **Energy Form** |
| **1: Turbine to Power Saw** |  |  |  |
| **2: Gas in Your Car** |  |  |  |
| **3: Sunshine to Cows** |  |  |  |
| **4: Coal Power Plant** |  |  |  |
| **5: Wall Socket to Hair Dryer** |  |  |  |

# Part 3: Journal Questions

**Complete the following questions using what you learned in the Part 1 and 2 activity and in this lesson.**

1. Describe the energy conversions that take place when a flashlight is turned on.

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1. Describe the energy conversions that take place when you vigorously rub your hands together.

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1. Review the following sequence and describe the energy conversions involved.
   * Water is boiled.
   * The resulting stream is blown against turbine blades.
   * The turbine blades spin in a magnetic field, producing electricity.
   * The electricity is used to light a lamp.

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1. Describe how energy is transferred in one of the sequences you reviewed in the virtual lab (Parts 1 and 2 of this assignment).

1. What happens if an energy transformation sequence isn’t completed?