Worksheet: ***Energy Transformations and Chains***

 **Instructions:**

* **Fill in the blanks** below with the kinds of energy involved. Each sentence will then describe an ENERGY TRANSFORMATION
* After each transformation **draw a simple energy chain** to represent the transformation. The first few are done for you as examples
1. In a portable stereo, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ energy is changed to \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ energy, and then into \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ energy.

Sound

Electrical

Chemical

1. When you burn wood in a campfire, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ energy is converted to \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_ energy.

Light

Chemical

Heat

1. In a computer monitor, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ energy is transformed into \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ energy and \_\_\_\_\_\_\_\_\_\_\_\_\_ energy.
2. Through the process of photosynthesis, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ energy from the sun is changed to stored \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ energy.
3. If you place a ball at the edge of a hill, and it rolls downhill, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ energy is changed to \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ energy.
4. In a flashlight, the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ energy in batteries is changed to \_\_\_\_\_\_\_\_\_\_\_ energy and then to \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ energy.
5. In a fan, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ energy is changed to \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ energy.
6. When water held behind a dam is released, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ energy is converted first to \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ energy.
7. At a hydropower facility, the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ energy of flowing water can be used to spin a turbine and power a generator, creating \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ energy.
8. In a photovoltaic (solar) panel, the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ energy of the sun is converted directly into \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ energy.
9. In a car, the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ energy in petrol is burned to create energy, which is converted to \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ energy.
10. In a propane-powered coffee roaster, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ energy is burned to create \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ energy.
11. In a modern wind turbine, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ energy is converted to \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ energy.
12. A stove uses electric energy or \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ energy to create \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ energy.
13. When we run, the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ energy stored in our muscles is converted to \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ energy.