Unit 1 - Worksheet 8:

Extra Practice with Energy Storage and Transfer

1. A wind turbine is powering an electric motor that is lifting a pair of scissors.
2. Sketch a System Schema for this scenario.

1. List all the energy transfers in the system.
2. Make an Energy Bar Chart and State Diagrams, including bar graphs and flow diagrams for each energy transfer step you identified.
3. I place an egg in a measuring cup of water, put them into a microwave oven and set it for 6 minutes at full power. By about minute 3, I see that the water is boiling briskly and the egg is bouncing around inside the cup of boiling water. At 6 minutes I remove the egg from the microwave and crack it open. It is almost fully hardboiled.
4. Sketch a System Schema for this scenario.

1. List all the energy transfers in the system.
2. Make an Energy Bar Chart, including bar graphs and flow diagrams for each energy transfer step you identified.
3. You are flying a drone outside when a curious eagle swoops down on to the drone, grabs the drone with her talons, and carries it back safely to rest in her nest.
4. Sketch a System Schema for this scenario.

1. List all the energy transfers in the system.
2. Make an Energy Bar Chart and State Diagrams, including bar graphs and flow diagrams for each energy transfer step you identified. (Hint: you may need multiple state diagrams and bar charts to do the job thoroughly).