Energy Transfer

Standards:

Energy is a property of many substances and is associated with heat, light, electricity, mechanical motion, sound, nuclei, and the nature of a chemical. Energy is transferred in many ways.
Heat moves in predictable ways, flowing from warmer objects to cooler ones, until both reach the same temperature.

Benchmarks:
Know that heat can be transferred through conduction, convection, and radiation; heat flows from warmer objects to cooler ones until both objects reach the same temperature.

Objective:
The student will make two models to demonstrate the properties of heated air.

Materials:
1. Scissors
2. A piece of paper with a teacher-drawn spiral
3. Thread
4. Crayons or markers
5. A heat source (lamp with bulb, heater, heat plate, etc)
6-An empty clean 2-liter bottle
7-A balloon

Procedures:
Activity #1:
1-Place the empty balloon over the top of the empty 2-liter bottle
2-Heat the bottle until the balloon inflates
Activity#2: “Spinning Snake”
1. Color or decorate the snake before cutting.
2. Cut out the spiral design.
3. Hang the snake above the center of a heat source.
4. Watch it spin.

Assessment:
Does the balloon inflate? Why?
Does it spin? Why?

Predictions

1-What is wind?

2-What do you think makes it blow?

3-Where does the energy come from to power the wind?