

Name \_\_\_\_\_

### Light Energy Station

1. The radiometer is an instrument used to measure the intensity of light energy. What do you predict will happen to the radiometer if you place a file folder between the light source and the radiometer?

---

---

---

2. Why do you think this? \_\_\_\_\_

---

---

3. Put the file folder between the light source and the radiometer. Was your prediction correct?

---

---

4. What happens when you move the flashlight away from the radiometer? \_\_\_\_\_

---

---

5. Why doesn't the radiometer turn when only the classroom lights are turned on? \_\_\_\_\_

---

---

---

6. In this activity, light energy is transferred to what form of energy? \_\_\_\_\_

---

---

7. What is one good question you have about light energy? \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Name \_\_\_\_\_

## Heat Energy Station

Cool off the bottle by filling it once or twice with cold water. Pour out the water. Put a deflated balloon (one that is not “blown up”) over the opening of the bottle. Float the bottle in a bowl of very hot water. *Be careful. Do not get burned.*

1. What happens to the balloon? \_\_\_\_\_

\_\_\_\_\_

2. Why do you think this happened? \_\_\_\_\_

\_\_\_\_\_

3. Into what form of energy is the heat energy transformed? \_\_\_\_\_

\_\_\_\_\_

4. The hot plate gives off heat energy. When the water in the beakers boils, into what form of energy is the heat energy transformed? \_\_\_\_\_

\_\_\_\_\_

5. What form of energy was transformed into heat energy by the electric hotplate? \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

6. How could you measure heat energy? \_\_\_\_\_

\_\_\_\_\_

7. What is one good question you have about heat energy? \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Name \_\_\_\_\_

### Energy of Motion Station

1. How can you turn energy of motion into heat energy with your hands? \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

2. How can you turn energy of motion into heat energy with a can of sand? \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

3. How could you turn energy of motion into heat energy with a paperclip? \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

4. What is the same about all of these activities? \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

5. What happened to the heat energy from any of the activities? \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

Now experiment with releasing the ball from greater heights and allowing the ball to strike an upside-down pie pan at the bottom of the ramp. Then answer these questions:

6. Into what form of energy is the energy of motion being transformed? \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

7. Is there a relationship between the height at which the ball was released and the loudness of the sound? \_\_\_\_\_

\_\_\_\_\_

8. What is one good question you have about energy of motion? \_\_\_\_\_

\_\_\_\_\_

Name \_\_\_\_\_

### Sound Energy Station

1. Can you see sound? \_\_\_\_\_  
\_\_\_\_\_

Produce sound near the viewing device. Unscrew the end of the mag-lite that holds the lens and expose the bulb (or use a projector). Light from the bulb will reflect off the mirror and onto the seeing device.

2. What is happening to the sound energy that you produced? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

3. Is there any relationship between the kind of sound and the reflected light that you see? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

4. Into what form of energy is the sound energy being transformed? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

5. What is one good question you have about sound energy? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Name \_\_\_\_\_

## Wind Energy Station

1. Set up the fans so they face each other. Plug in and turn on just one of them. What happens to the fan that is not turned on? \_\_\_\_\_  
\_\_\_\_\_
2. Explain why this happens. \_\_\_\_\_  
\_\_\_\_\_
3. With what does the wind energy interact? \_\_\_\_\_  
\_\_\_\_\_
4. Into what form of energy is the wind energy transformed? \_\_\_\_\_  
\_\_\_\_\_
5. Blow over the top of a bottle. Into what form of energy is wind energy being transformed? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
6. What is one good question you have about wind energy? \_\_\_\_\_  
\_\_\_\_\_