Energy Awareness Pre/Post Survey, Grades 4-5 Name:_____

Date: _____

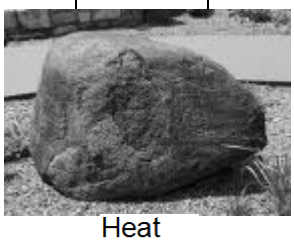
1. Look at the pictures and circle the appropriate letters or letters (there may be more than one right answer) that apply:

   - If it generates heat circle the word **Heat.**
   - If it generates light circle the word **Light.**
   - If it produces sound circle the word **Sound.**
   - If it moves circle the word **Moves**.
   - If it uses electricity circle the word **Electric.**
   - If it doesn't do any of the above don't circle any of the letters

Fan

Heat
Light
Sound
Moves
Electric

Rock



Heat
Light
Sound
Moves
Electric

IC Bulb

Heat
Light
Sound
Moves
Electric

Bell

Heat
Light
Sound
Moves
Electric

Lit candle

Heat
Light
Sound
Moves
Electric

Cell phone

Heat
Light
Sound
Moves
Electric

Fill-in the blanks with one word that fits in both spots….

2. __ __ __ __ __ __ is the ability to do work. Our bodies use food to make __ __ __ __ __ __ so we can play and read and clean our rooms. The other types of energy we use help make our lives easier and more comfortable.

3. Draw a line to connect the heat transfer *name* to the correct *definition*:

- Convection — The transfer of heat by invisible electromagnetic waves.
- Radiation — The transfer of heat by direct contact between objects.
- Conduction — The transfer of heat by the movement of molecules in a gas (air).

4 . The pan on the stove is placed on top of a burner to cook an egg; write a short answer to the following questions:

- What is happening to the pan?
- Do you think the pan's metal handle will get hot?
- What type of heat transfer does the hot air rising off the pan represent?
- What type of heat transfer happens when you warm your hands near the pan without touching it?

5. Heat always moves from warmer things to cooler things – true or false? (circle one)

6. Which of the following items costs the most to run per hour? (circle your choice)

a) Dishwasher

b) Computer

c) Television

d) Refrigerator

e) Xbox 360

7. Why do you think the item you chose is the most expensive?

8. Why is it important to conserve energy at school, at home, and in your community?

9. What can you do to conserve or save energy at school, at home, and in your community?