Name _____ Period _____ Date _____

ENERGY & ELECTRICITY NOTES

(*Motion, Forces, and Energy* pages 147-169)

1. What are the two basic kinds of energy? What is the difference between them?

2. Energy comes in different forms:

_____ energy: potential energy stored in the chemical bonds that hold compounds together.

_____ energy: energy of light and other forms of radiation.

_____ energy: form of energy associated with the position and motion of an object.

_____ energy: total potential and kinetic energy of the particles in an object.

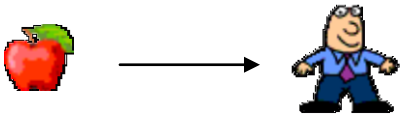
_____ energy: potential energy stored in an atom; released during nuclear reaction.

_____ energy: energy of electric charges.

3. A change from one form of energy to another is called an _____ _____.

Example: a toaster transforms <u>electrical</u> energy to <u>thermal</u> energy to toast bread. 

Example: <u>Chemical</u> energy in food is transformed into <u>thermal</u> energy in your body to stay warm.



Example: A dryer transforms <u>electrical</u> energy to <u>mechanical</u> and <u>thermal</u> energy to turn and dry clothes.

4. What energy transformation allows you to send a rubber band flying across the room?

5. Describe the energy transformations that happen when you strike a match. List them in the order they occur.

6. What energy transformation occurs in a solar panel?

7. How is the chemical energy in coal released?

8. CHALLENGE: Describe the steps in which a power plant transforms the energy in fossil fuels to electrical energy. (Hint: there are 4 types of energy involved)

Other Vocabulary You Need to Know!

Use *Science Explorer: Electricity and Magnetism,* pages 44 - 45 and 64 - 65 to find the definitions for the following words.

Vocabulary Word	Definition
Electric Current	
Electric Circuit	
Conductor	
Insulator	
Series Circuit	
Parallel Circuit	