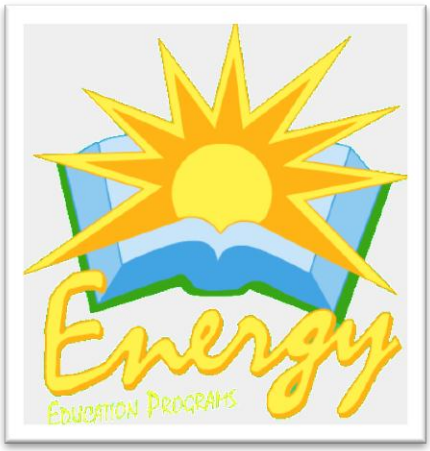
# ENERGY

Name & Class: _____

Go to the following website:
http://penfieldspride.wikispaces.com/Energy+Scavenger+Hunt

There are 2 pictures on the wiki-spaces page. You will see the same pictures in this packet. You will click your mouse on the picture on the wiki page. This will take you to a website. You will need to read the information provided for you on the websites in order to answer the questions. **After** you have read the information on the sites, answer the questions that follow. .




**On the left hand side of this website there is a list of topics. You will need read all of the topics and answer questions for each topic.**

## What Is Energy

1. Energy is the ability to do _____ . Work can mean a change in _____, _____, _____, or _____ . Therefore energy is the capacity to change _____ .

2. Give 2 examples of things we do that involve energy
   1.

   2.

3. What are the two basic concepts of energy:
   1.

   2.

## Potential & Kinetic Energy

1. What are the two states of energy?

2. What is potential energy? Give two examples.

3. What is kinetic energy? Give two examples.

4. What was the example of potential and kinetic energy in figure 3? Explain what was happening.

## Forms of Energy

1. What are the six forms of energy?
    1.
    2.
    3.
    4.
    5.
    6.

2. How are the six forms of energy related? Give an example.

*Chemical*

3. Give two examples of chemical of energy. Tell me how it is stored and how it is released.

*Electrical*

4. Electrical energy is the energy carried by moving _____ in an electric conductor.

5. Do electrical generating plants create energy? Why or why not?

*Radiant*

6. Atoms absorb energy from an outside source and _____ this energy as _____. This radiation can be in the form of _____ .

7. Figure 5 shows the _____.

*Mechanical*

8. Mechanical energy _____, _____, _____, _____, and _____.

9. Machines use mechanic energy to do work. How do our bodies use mechanical energy?

*Nuclear*

10. What are two kinds of matter used to produce nuclear energy?

11. What are two uses of nuclear energy?

*Thermal*

12. Thermal energy is the energy of _____ or _____ molecules.

13. What is Figure 6 demonstrating?

## Energy Transformations

1. Explain how energy is transformed in Figure 7.

2. Why do we transform energy from one form to another?

## Law of Conservation

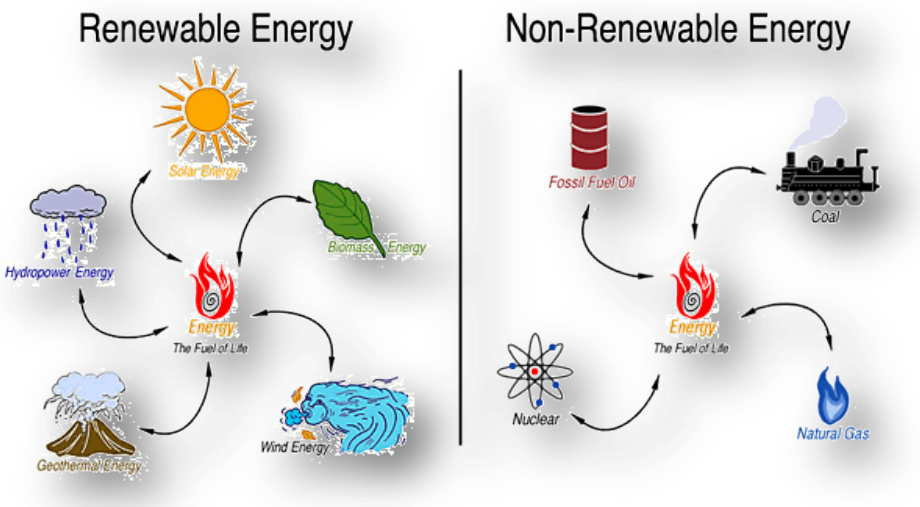
1. Energy cannot be _____ or _____.

2. FYI Can Energy Disappear? → What happens to some of the potential and kinetic energy on the roller coaster?

## Energy Control Systems

1. What are the three parts of every energy control system?
    1.
    2.
    3.

2. Figure 8 is the picture representing an energy pathway. Save this picture in your photos as "energy pathways for ppt". You will need to use this picture in your PowerPoint presentation.




In the left side of the website are headings. Under the heading "Energy Sources," you will see "Nonrenewable" and "Renewable." Click on these headings to answer the following questions.

## Nonrenewable

1. What percentage of energy consumed in the United States comes from nonrenewable energy sources?

2. What are the four nonrenewable energy sources most often used:
    1.
    2.
    3.
    4.

5. What makes an energy source nonrenewable?

6. What are the two types of energy sources?
    1.
    2.

## Renewable

1. What makes an energy source renewable?

2. What are the five renewable energy sources that are used most?
    1.
    2.
    3.
    4.
    5.

3. What percentage of energy is provided by renewable energy sources in the United States?

Click on the word Solar on the Renewable page. It is blue and underlined. This will take you to another page.

## Solar

1. The sun is the major source of energy on the planet. In the form of radiant energy, it has _____ life on Earth for millions of years.

2. When solar energy is transformed into thermal energy, it can be used to:
    1.
    2.

3. Solar energy can be transformed into electrical energy by "solar cells" and concentrating solar power plants. Which state has the most concentrating solar power plants?


**Stop after you finished reading about the two drawbacks of solar energy. ☺**
**After you show Mrs. Penfield your work, you may visit the other websites listed on the Wiki page.**