

Name: _____ **Student ID#** _____

We get energy from many different sources. Some are fuels that we extract by mining, and others are natural energy flows that we can trap.

1. List five sources of energy (10 pts.)
2. What is a renewable energy source? (5 pts.)
3. How does energy use affect the environment? Give at least three examples and explain how the environment is affected.(8 points)
4. Define energy in your own words? What are the units? (5 pts.)
5. Define power in your own words? What are the units?(5 pts.)
6. Convert the following quantities to the units shown. (3 pts.)
 - a. 1 kJ to Wh
 - b. 10,000 Btu to MJ
 - c. 1kWh to MJ
7. How much energy in kilowatt-hours is consumed by a 1000 W microwave oven used for 5 minutes? (10 pts.)
8. A clock radio consumes 240 Wh of electrical energy over a day. What is its power consumption? (10 pts.)
9. If a refrigerator uses 2kWh of electricity per day and operates on the average only 20 minutes per hour, what is the power rating of the refrigerator motor? (10 pts.)
10. A sewing machine rated at 75 W consumes 675 Wh of energy over a week. How long was the machine used over the week? (10 pts.)
11. What are three examples of energy consuming technology around your home? (3 pts). For these three determine : (21 pts.)
 - a. What is the type of the input energy?
 - b. What is the type of the output energy?
 - c. What is the type of the energy losses?