Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Period \_\_\_\_\_\_\_\_\_\_\_\_

Energy Transformation and Resources Study Guide

1. **Define - *Give short definitions to describe the following vocabulary terms****.*
2. Energy 2) Potential Energy
3. Kinetic Energy 4) Chemical Energy
4. Electrical Energy 6) Mechanical Energy
5. Thermal (heat) Energy 8) Elastic Energy

9) Nuclear 10) Radiation/Light

11) Transformation 12) Law of Conservation of Energy

1. Types of Energy Practice -***Identify each type of energy in the phrases below***

1. Standing at the top of a slide 2. Winding up for a pitch

3. Juice in an orange 4. A light bulb that is on

5. Steam from hot chocolate 6. An unburned lump of coal

7. Throwing a curve ball 8. A battery

9. Frog leaping into the water 10. Book falling from a high shelf

11. Lightning 12. A stretched rubber band

13. Book on a high shelf 14. Gasoline in a car

15. Executing a swan dive 16. Nuclear power plant

17. music 18. Static cling

19. A match 20. A stretched rubber band

**C. Multiple Choice**

***Identify the letter of the choice that best completes the statement or answers the question****.*

\_\_\_\_\_\_\_ 1. When you wind a rubber band on a toy airplane, what type of energy does the rubber band have?

|  |  |  |  |
| --- | --- | --- | --- |
| a. | kinetic energy | c. | thermal energy |
| b. | elastic potential energy | d. | mechanical energy |

\_\_\_\_\_\_\_ 2. In a hair dryer, electrical energy is changed into which type of energy that is used to dry your hair?

|  |  |  |  |
| --- | --- | --- | --- |
| a. | light | c. | thermal |
| b. | nuclear | d. | chemical |
|  |  |  |  |

\_\_\_\_\_\_ 3. When there is friction on a roller coaster, some of the potential energy is converted into

|  |  |  |  |
| --- | --- | --- | --- |
| a. | thermal energy. | c. | light energy. |
| b. | nuclear energy. | d. | chemical energy. |

\_\_\_\_\_\_\_4. You turn on a lamp and the light bulb becomes warm. Which energy conversion causes this heating of the light bulb?

|  |  |  |  |
| --- | --- | --- | --- |
| a. | thermal energy to electrical energy | c. | electrical energy to thermal energy |
| b. | light energy to thermal energy | d. | electrical energy to light energy |

\_\_\_\_\_\_\_5. Which of the following is a conversion from light energy to chemical energy?

|  |  |  |  |
| --- | --- | --- | --- |
| a. | turning on a stove to heat dinner | c. | growing an apple tree |
| b. | turning on a lamp | d. | making toast in a toaster |

\_\_\_\_\_\_\_6. After energy conversions, you end up with the same total amount of energy as the original amount of potential energy. Which law explains this rule?

|  |  |  |  |
| --- | --- | --- | --- |
| a. | law of energy changes | c. | law of power and energy |
| b. | law of conservation of energy | d. | law of potential energy |