

Forms of Energy and Energy Transformations Practice

Name _____

Date _____

LT: I can identify and describe the different forms of potential and kinetic energy. _____

LT: I can give/explain examples of energy transformations. _____

Potential and Kinetic Energy

Identify each of the following forms of energy as either potential energy (P) or kinetic energy (K).

_____ Sound _____ Nuclear _____ Elastic _____ Electric
_____ Chemical _____ Gravitational _____ Thermal _____ Electromagnetic

a. Choose one of the above forms of potential energy and describe why it fits in this category.

b. Choose one of the above forms of kinetic energy and describe why it fits in this category.

Forms of Energy

Match the energy form(s) to the description provided. Questions may have more than one answer. Pick the form(s) of energy **most clearly demonstrated**.

- | | |
|---|------------------------------|
| _____ 1. A boulder resting at the top of a hill | a. Translational motion |
| _____ 2. Release of energy from the Sun | b. Electric |
| _____ 3. A coiled spring | c. Electromagnetic (radiant) |
| _____ 4. Batteries not in use | d. Chemical |
| _____ 5. The energy that runs a refrigerator | e. Nuclear |
| _____ 6. Nuclear fission reactors | f. Sound |
| _____ 7. The rumble of thunder from a storm | g. Elastic |
| _____ 8. Rubbing your hands together | h. Gravitational |
| _____ 9. Gasoline stored in a tank | i. Rotational motion |
| _____ 10. Food before it is eaten | j. Thermal (heat) |
| _____ 11. A guitar string vibrating | |
| _____ 12. A top spinning | |
| _____ 13. Sledding down a hill | |
| _____ 14. Candle burning | |
| _____ 15. A taut rubber band (fully stretched) | |

Transformation of Energy

Use the following forms of energy to fill in the table below: **rotational motion, translational motion, electric, thermal, electromagnetic, chemical, nuclear, and sound**. The first one has been done for you.

EXAMPLE	ORIGINAL ENERGY FORM	FINAL ENERGY FORM
1. Electric motor	electrical	rotational motion
2. A battery that runs a moving toy		
3. A solar panel on the roof of a house		
4. A person lifting a chair		
5. A nuclear power plant		
6. A toaster		
7. A church bell ringing		
8. Gasoline powering a car		
9. Turning on a lamp		
10. Photosynthesis		

Transformation of Energy II

Describe a scenario with the following energy transformations (do not include examples from the table above):

- a. Electric energy being converted into sound energy

- b. Chemical energy being converted to motion energy

- c. Thermal energy being converted to sound energy

- d. Gravitational potential energy being converted to motion energy

- e. Electric energy being converted into electromagnetic energy