

ENERGY REVIEW

Name _____
Date _____ Period _____

Part 1. The two basic categories of energy

Directions: Determine the best match between basic types of energy and the description provided. Put the correct letter in the blank.

- ____ 1. A skier at the top of the mountain (a) Kinetic Energy
- ____ 2. Gasoline in a storage tank (b) Potential Energy
- ____ 3. A race-car traveling at its maximum speed (c) Both forms of Energy
- ____ 4. Water flowing from a waterfall before it hits the pond below
- ____ 5. A spring in a pinball machine before it is released
- ____ 6. Burning a match
- ____ 7. A running refrigerator motor

Part 2. Definitions of Energy.

Directions: Write down the definition for each of the following terms (you may use your notes).

ENERGY:

KINETIC ENERGY:

POTENTIAL ENERGY:

Part 3. Forms of Energy.

Directions: Determine each type of energy below and give an example of that energy in a Potential State and in a Kinetic State (Ex- A car parked in the driveway has potential mechanical energy; a car speeding down the highway has kinetic mechanical energy).

Form	Definition	Example of Potential Energy	Example of Kinetic Energy
Mechanical energy			
Thermal energy			
Radiant energy			
Electrical energy			

Form	Definition	Example of Potential Energy	Example of Kinetic Energy
Chemical energy			
Nuclear energy			

Part 4. Forms of Energy Continued

Directions: Match the energy form(s) to the description provided. A few questions may have more than one answer—in those cases, put all energy types that apply.

- | | |
|--|----------------|
| _____ 1. Falling rocks from the top of a mountain | (a) Mechanical |
| _____ 2. Release of energy from the Sun | (b) Electrical |
| _____ 3. Energy released from food after it is eaten | (c) Heat |
| _____ 4. Batteries | (d) Radiant |
| _____ 5. The energy that runs a refrigerator | (e) Chemical |
| _____ 6. Nuclear fission reactors | (f) Nuclear |
| _____ 7. Fire in a fireplace | |
| _____ 8. Rubbing your hands together | |
| _____ 9. Gasoline | |
| _____ 10. Food before it is eaten | |
| _____ 11. Lightening | |

Part 5. Transformation of Energy

Directions: Use the following forms of energy to fill in the table below: **mechanical, electrical, heat, radiant, chemical, nuclear**. The first one has been done for you.

	ORIGINAL ENERGY FORM	FINAL ENERGY FORM
1. Electric motor	electrical	mechanical
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		

	ORIGINAL ENERGY FORM	FINAL ENERGY FORM
6. A toaster		
7. A church bell		
8. Gasoline powering a car		
9. A light bulb		
10. Photosynthesis		

Part 6: Energy Transformation in action.

Identify the different types of energy transformed in the images below.

Windmill



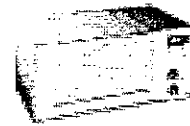
Energy Transformation:

Flashlight



Energy Transformation:

Microwave



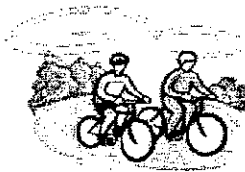
Energy Transformation:

Firecracker



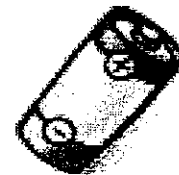
Energy Transformation:

Bicycle



Energy Transformation:

Battery



Energy Transformation:

Give an example of each of the following energy transformations:

1. Electrical to Thermal:

2. Chemical to Thermal

3. Electrical to Mechanical