"INTRODUCTION TO ENERGY" WORKSHEET

Name_____
Date _____ Block_____

Part 1. The two basic types 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

_____2. Gasoline in a storage tank

_____3. A race-care traveling at its maximum speed

_____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

(a) Kinetic Energy

(b) Potential Energy

(c) Both forms of Energy

Part 2. Definitions of Energy.

Directions: Write down the definition for each of the following terms after reading the article.

ENERGY:

KINETIC ENERGY:

POTENTIAL ENERGY:

Part 3. Forms of Energy.

Directions: Determine the type of energy for each form (Kinetic, Potential, or Both) and give an example.

Form	Definition	Type (KE, PE, or Both)	Example (for each type if both)
Mechanical (motion) energy	An object's movement creates energy		
Thermal (heat) energy	The vibration and movement of molecules		
Radiant energy	Electromagnetic waves		
Electrical energy	Movement of electrons		
Chemical energy	Stored in bonds of atoms and molecules		
Nuclear energy	Stored in the nucleus of an atom; released when nucleus splits or combines		
Sound energy	Vibration of waves through material		

Gravitational energy	Energy of position or height		

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.

_____1. Falling rocks from the top of a mountain

_____2. Release of energy from the Sun

_____3. Energy released from food after it is eaten

_____4. Batteries

_____5. The energy that runs a refrigerator

_____6. Nuclear fission reactors

_____7. The rumble of thunder from a storm

_____8. Rubbing your hands together

_____9. Gasoline

_____10. Food before it is eaten

_____11. Lightening

(a) Mechanical

(b) Electrical

(c) Heat

(d) Radiant

(e) Chemical

(f) Nuclear

(g) Sound

Part 5. Transformation of Energy

Directions: Use the following forms of energy to fill in the table below: **mechanical, electrical, heat, radiant, chemical, nuclear, and sound**. 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		
6. A toaster		
7. A church bell		
8. Gasoline powering a car		
9. A light bulb		
10. Photosynthesis		