

2.1 FORMS OF ENERGY

1. Give an example for each of the following forms of energy.

a) chemical

b) electrical

c) mechanical (energy of motion or kinetic energy)

d) nuclear

e) solar (direct solar radiation)

f) thermal

2. In the following uses of energy, state the form of the energy involved and describe the observable change or changes that occur.

Event	Form(s) of Energy	Observable Change(s)
burning wood		
electric motor running		
sailboat moving		
riding a bike		
growing green plant		

3. Technology has provided us with devices that transform one form of energy into another. Indicate the transformations that occur in the following devices.

a) a toaster

b) cooling fan

c) kerosene heater

d) microwave oven

e) computer monitor

f) nuclear reactor

4. All forms of energy can be shown to be fundamentally kinetic energy. For the following forms of energy explain briefly how this is so.

Form of Energy	Explanation
chemical	
electrical	
nuclear	
solar	
thermal	

CHANGE \rightleftharpoons ENERGY

5. Explain how energy is involved in any kind of change.

6. Examine the illustrations below.

a) Using arrows, trace the energy flow from the sun to the electric light bulb.

