

Work Sheet 1 | Lower Secondary

Stage (6-8)

1st Semester | 2023-2024

Name: KEY







Subject: Physics
Chapter 1: Energy
Class: 6 CS

Objectives:

- Identify different forms of energy.

Question 1:

Each of these objects transfers energy into useful types of energy.

| | | |
|--|--|--|
|  Light Energy |  Thermal Energy |  Thermal Energy |
|  Sound Energy |  Sound Energy |  Kinetic Energy |

Write down the useful type of energy released below each object.

Choose the type of energy from

electrical kinetic light sound thermal ...

Question 2:

Write the correct type of energy described in each of the following situations:

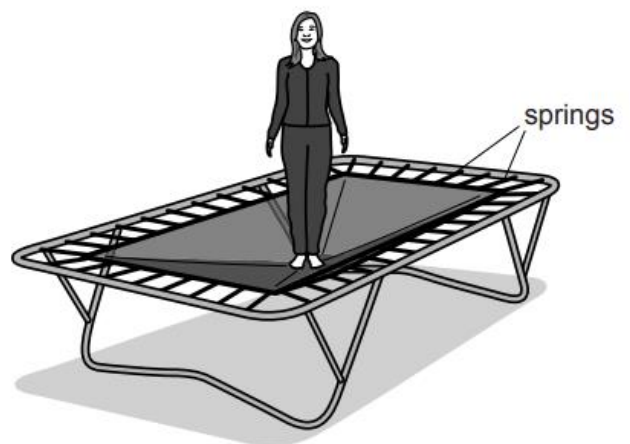
| Situation | Form of energy |
|--|---------------------------------------|
| A car is moving. | Kinetic Energy. |
| The engine gets hot. | Thermal Energy |
| The headlights are on. | Light Energy |
| The engine is making noise. | Sound Energy |
| The car battery stores energy. | Chemical Energy |
| Wires inside the car pass this energy to the controls. | Electrical Energy |
| The car is filled with fuel. | Chemical Energy |
| The car seat is springy. | Elastic Energy |
| If the car is left on a hill without the handbrake on, it will roll down because of this energy. | Gravitational Potential Energy |

Question 3: Fill in the table with an example of each type of energy:

| Type of energy | Example |
|--------------------------------|--|
| Kinetic energy | A moving car, bicycle, motorcycle. |
| Gravitational potential energy | A man standing on a diving board. |
| Elastic potential energy | Stretching rubber bands, spring. |
| Thermal energy | Heating food on stoves, the energy given by a fireplace. |
| Light energy | Light bulbs, traffic lights, candles. |
| Sound energy | Speakers, musical instruments. |
| Electrical energy | Charging your phone and computer. |
| Chemical potential energy | Energy stored in food, fuels, and batteries. |

Question 4:

A girl is jumping over a trampoline.



- a. State the form of energy stored due to the stretching of the surface of the trampoline.

.....Elastic Energy

- b. What form of energy does the girl have when she jumps to the highest point?

.....Gravitational Potential Energy

Question 5:

(a) State the energy changes that take place when:

(i) A cyclist rides down a hill without pedaling,

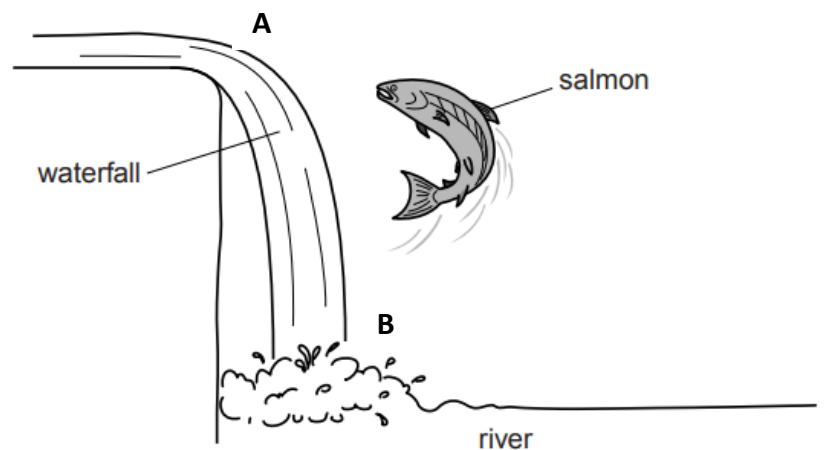
.....From gravitational potential Energy to Kinetic energy

..... .

(ii) a cyclist pedals up a hill at a constant speed.

... From Kinetic Energy to gravitational potential energy

(b) the picture below shows a waterfall.



i) What form of energy does water have at **point A**?

..... Gravitational potential energy

ii) What form of energy does water have at **point B**?

..... Kinetic Energy