

PARAGON CONVENT SCHOOL

SECTOR : 24 B, CHANDIGARH

CHAPTER - 9

FORCE WORK AND ENERGY

MCQs. Page no. 90

1. A
2. C
3. C

MCQs. Page no. 92

1. A
2. B
3. C

MCQs. Page no. 94

1. C
2. B
3. C

EXERCISES

SECTION- A

A. Oral Questions:

Q1.- What is the need of force in our life?

Ans.- Force is needed in our daily life to move any object, to stop any moving object and to change the direction or shape of any object.

Q2.- Why do ripe fruits fall on the earth?

Ans.- Ripe fruits fall on the earth due to gravitational force.

Q3.- Why do we need energy?

Ans.- We need energy to do work.

B. Science Quiz.

Q1.- Name two simple machines.

Ans.- A pair of scissors and screw/ knives/tongs/tweezers.

Q2.- Give two examples of second class lever.

Ans.- Nutcracker and a bottle cap opener/ wheel barrow.

Q3.- Name two compound (complex) machines.

Ans.- Aeroplanes and a sewing machine/ clock/cars

WORKSHEET

A. MCQs:

1. A
2. A
3. A

B. Fill in the blanks:

1. Gravity
2. Hard
3. First
4. Wedge
5. Potential

C. Match the following.

1. C
2. D
3. A
4. B

SECTION- B

A. MCQs.

1. C
2. B

B. Very short answer questions:

1. Name the force that help us to walk.

Ans.- Frictional force

2. Name a device that uses solar energy.

Ans.- Solar cooker/ solar heater

3. Name two third class levers.

Ans.-Forceps/ ice tongs and staple machine

4. Name a force which works on electrical energy.

Ans.- Washing machine, television and fan.

C. Short answer questions:

1. What is magnetism?

Ans.-The force applied by a magnet on an object is called magnetic force or magnetism.

2. What is meant by buoyant force?

Ans.- The upward force acting on an object in water is called buoyant force.

3. Nitika sees an old woman trying to draw a bucket of water from a well. Although she is getting late for her school, she helps her in drawing the water out.

A) Which type of simple machine is the rope and wheel of the well?

B) What do you learn from Nitika?

Ans.- (a) A rope and wheel of the well is called a pulley.

b)From Nitika, we learn to be kind and helpful.

4. What is a compound machine?

Ans.- The machine that consists of several simple machines for their working is called a complex machine or a compound machine.

5. What is the difference between single fixed pulley and single movable pulley?

Ans.-

Single fixed pulley	Single movable pulley
Single fixed pulley has a fixed axle. It is used to change the direction of the load. For example: a pulley is used to draw water from the well.	A single movable pulley has a free axle, i.e. the axle is free to move. It is generally used in combination with a fixed pulley.

D. Long answer questions:

1. When is work said to be done?

Ans.- The work is said to be done only when the applied force causes a change in the position of the object in the direction of the applied force.

For example: pushing a table, pulling a toy car.

2. Define load, effort and fulcrum and mention their positions in first, second and third-class levers.

Ans.- Load : The object on which work is said to be performed is called load.

Effort : The force applied on a lever to lift or move the load is called effort.

Fulcrum: The fixed point on which a lever turns is called fulcrum.

The positions of the load, fulcrum and effort in first, second and third class lever is as follows :

First class lever : Fulcrum is between the load and effort.

Second class lever : Load is between the fulcrum and the effort.

Third class lever: The effort is in between fulcrum and load.