



STEPPING STONE
SCHOOL (HIGH)

CLASS :8

Subject: physics

Topic: Matter

Date: 27.04.2020

Time Limit: 30 min

Worksheet No.: 1

[Copy the questions and solve them on a sheet of paper date wise. Keep the worksheets ready in a file to be submitted on the opening day.]

MATTER

Every matter is made up of smallest particle known as atom. Atoms combine to form molecules and molecules further combine to form matter

Matter :- Anything that has mass and weight, occupies space and can be sensed through our sense organ is known as matter. Anything that we see and feel in our surrounding is matter. Different states of matter are solid, liquid and gas. The three different states of matter are also known as three phases of matter

Intermolecular force of attraction: - The force of attraction that prevails between the molecules of matter is known as intermolecular force of attraction.

Intermolecular space: - The space between the molecules of matter is known as intermolecular space

CHARACTERISTICS OF SOLID

- 1) They have definite shape, size and volume.
- 2) The molecules are closely packed.
- 3) The intermolecular force of attraction is maximum.
- 4) The intermolecular space is minimum
- 5) The molecules of solid vibrate at their mean position.
- 6) They are not easily compressed

- 7) They do not flow from higher level to lower level
- 8) They can be heaped.

CHARACTERISTICS OF LIQUID

- 1) They do not have definite shape and size
- 2) They have definite volume
- 3) They take the shape of a container in which they are kept.
- 4) The intermolecular force of attraction is less than solid
- 5) The intermolecular space is more than solid
- 6) The molecules of solid move in the volume they occupy
- 7) They are not easily compressed

8) They can flow from higher level to lower level

CHARACTERISTICS OF GAS

- 1) They do not have definite shape, size and volume.
- 2) The intermolecular force of attraction is least, almost negligible
- 3) The intermolecular space is maximum.
- 4) The molecules of gas move in the entire volume available to them
- 5) During movement the molecules collide with the wall of the container due to which a pressure acts on the container in which they are kept
- 6) They can flow from one place to another place
- 7) They can be easily compressed
- 8) They cannot be heaped

ANSWER THE FOLLOWING QUESTIONS

- 1) Define matter.
- 2) State five characteristics of solid.
- 3) State five characteristics of liquid.
- 4) State five characteristics of gas.
- 5) What do you understand by intermolecular force of attraction and intermolecular space.
- 6) Why intermolecular space is minimum in solids.
- 7) Why solids are not easily compressed
- 8) Why liquids flow from higher level to lower level
- 9) Why gases exert pressure on the wall of a container in which they are kept.
- 10) Draw a neat labelled diagram of molecular arrangement of different phases of matter
- 11) State five points of difference between solid, liquid and gas on the basis of their characteristics.

POINTS TO REMEMBER

The movement of molecules of matter is best explained by kinetic theory of matter