



STEPPING STONE  
SCHOOL (HIGH)

CLASS :8

**Subject: physics**

**Topic: Matter**

**Date: 29.04.2020**

**Time Limit: 30 min**

## **Worksheet No.: 2**

*[Read the notes carefully. Then 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.]*

### **Kinetic theory of matter**

Every matter is made up of smallest particle called molecules. Molecules are made up of much smaller particles called atoms.

**Atom** – The smallest particle of matter that does not exist independently but takes part in chemical reaction is known as atom.

**Molecules** – The smallest particle of matter that exists independently and contains all the characteristics of matter is known as molecules.

### **DIFFERENCE BETWEEN ATOMS AND MOLECULES**

#### **ATOMS**

1) They do not exist independently

2) They take part in chemical reaction.

3) They do not contain the characteristics

of matter

4) They are made up of electron, protons

and neutrons

#### **MOLECULES**

1) They exist independently

2) They do not take part in chemical reaction

3) They contain all the characteristics of the

matter

4) They are made up of atoms

- 1) All matter is made up of very small particles known as molecules.
- 2) Molecules are made up of smallest particles known as atoms
- 3) The molecules of matter are always in motion
- 4) The molecules of same matter are equal in shape, size and weight.
- 5) The molecules of matter attract each other with a force known as inter molecular force of attraction
  
- 6) The space between two molecules is known as inter molecular space
- 7) The energy possessed by each molecule of matter is equal to the average kinetic energy of all molecules in the matter

The energy possessed by each molecule is directly proportional to its temperature.

#### **ANSWER THE FOLLOWING QUESTIONS:-**

- 1) Define atoms and molecules.
- 2) Name the smallest particle which makes up an atom and a matter
- 3) State four characteristics of atom.
- 4) State four characteristics of molecules.
- 5) State the difference between atoms and molecules
- 6) What are the basic postulates of kinetic theory of matter
- 7) What is the amount of energy possessed by each molecules of matter
- 8) How the energy possessed by each molecules of matter can be increased or decreased.

#### **POINTS TO REMEMBER**

- 1) ATOMS take part in a chemical reaction in simple whole number ratio.

