

Q.2  
15/07/21

Characteristics of particles of Matter:

The important characteristics of particles of matter are the following:

- 1) The particles of matter are very, very small.
- 2) The particles of matter have space between them.
- 3) The particles of matter are constantly moving.
- 4) The particles of matter attract each other.

Q.2

Exercise-I

1) Define matter.

A= Anything that has mass and occupies space is called matter.

2) What are the two <sup>main</sup> types of matter? Give two examples for each type.

A= The two main types of matter are living matter and non-living matter.

Examples:

Living matter: humans, plants

Non-living matter: paper, cup

3) Differentiate between living and non-living matter.

A: • Living matter is something that can grow, move, talk and reproduce on their own.

• Non-living matter is something that cannot grow, move and reproduce. It can be natural or man-made.

b) Select natural and man-made matter from the following list:

Wood, plastic, silk, medicines, detergents, coal, water, ceramic, cotton, glass, nylon, fruits.

Natural matter  
wood, coal, water,  
fruits, cotton, silk.

man-made matter  
plastic, medicines,  
detergents, glass,  
~~silk, cotton~~, nylon,  
ceramic.

Q) Give an example to show that matter offers resistance?

A= Matter offers resistance too. For example, if you try to swim in fast flowing water or you try to walk during an air storm, you will experience resistance.

Q) What do you mean by inter-molecular force of attraction?

A= Particles of matter are held ~~together~~ together by a force called the ~~gas~~ inter-molecular force of attraction.

S.No.	Property	Solids	Liquids	Gases
1)	Intermolecular space	Molecules are closely packed; have negligible intermolecular space.	Molecules are not closely packed; have more intermolecular space.	Molecules are very loosely packed; have large inter-molecular spaces.
2)	Shape	Have fixed shape	Have no fixed shape. Take the shape of the container in which they are kept.	Have no fixed shape. Take the shape of the container in which they are filled.
3)	Volume	Have fixed volume	Have fixed volume	Have no fixed volume

Gases

Flow in all directions

Effect of pressure is very high. Can be greatly compressed.

Liquids

Flow from a higher level to a lower level.

Effect of pressure is higher than in a solid, can be compressed slightly.

Solids

Do not flow

Effect of pressure is very low; almost incompressible. -He.

Property

Fluidity

Effect of pressure i.e. compression

S.No.

4)

5)

S.No.	Property	Solids	Liquids	Gases
4)	Fluidity	Do not flow	Flow from a higher level to a lower level.	Flow in all directions
5)	Effect of pressure i.e. compression	Effect of pressure is very low; almost incompressible.	Effect of pressure is higher than on a solid, can be compressed slightly.	Effect of pressure is very high. Can be greatly compressed.

