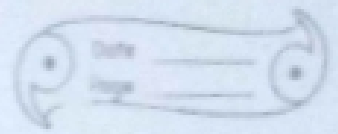


CH-1



Matter and its composition

1) What are the five basic elements of which matter is made up of according to the ancient philosopher?

ans The five basic elements of which matter is made up of according to ancient philosopher are :-

* Pritthvi (Earth)

* Vayu (Air)

* Jal (Water)

* Agni (Fire)

* Akash (Space)

2) What do you understand by the term Matter? Give examples.

ans Anything that has mass, occupies some

space and can be perceived by our sense organs. For examples:- Books, pen, trees, gadgets, etc.

Q-3) Write one point to differentiate an atom and a molecule.

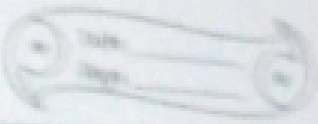
ans Atom :- An atom is the smallest possible unit of matter that exhibits all the properties of that matter.

Molecule :- A molecule is the smallest unit of matter which exhibits all the properties of that kind of matter and also has an independent existence.

Q-4) Mention the characteristics of the particles of matter.

ans Characteristics of particles of matter are:-

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-5) Differentiate between solid, liquids and gases.

ans Solid - Particles of solid are tightly packed and has great force between them.

Liquid - Particles of liquid are loosely packed and has less force as compared to solid.

Gas - Particles of gas are very loosely packed and have very less force as compared to solid and liquid.

Q-6) Define Sublimation. Name any two materials that sublimes.

ans When a solid changes directly to its gaseous form it is called sublimation. For example: - Camphor, iodine crystals.

Q-7) What do you mean by interconversion of states of matter? Mention the factors that caused the interconversion.

ans Interconversion of states of matter is the process by which matter changes from one state to another and back to its original state without any change in its chemical composition when conditions are changed. There are caused by mainly

* Change in temperature and

* by applying pressure

(2)

Q-8) What do you mean by Fluids?
Give examples.

ans The substance that can flow are called fluids. Example - Gases and Liquids.

Q-9) Give one word for the following

ans The change of vapour to liquid

ans condensation

b) The change of solid directly into gases without undergoing into the liquid medium.

ans sublimation

c) The substance that can flow

ans Fluids

Q-10) Give reason for the following:-

a) A teaspoon of sugar added to 10 ml of water does not increase its volume.

ans Because the sugar has adjusted in the space between the water molecule and thus does not increase its volume.

b) A sponge can be compressed though it is a solid.

ans Because the sponge has minute pores in which air is filled. That's why sponge can be compressed though it is a solid.

Q-11) Explain by an activity to show that the particles of matter have space between them. Draw a labelled diagram in support of your answer.

Aim :- To show that particles of matter have inter-particle space between them.



Normal
Water
Level



Risen Water
level



Normal
Water
Level



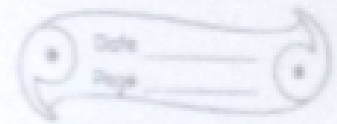
Water Level
Remains same

Materials Required :- Spoon, 2 glasses
water, sugar

Experiment :- Take the glasses. Pour equal amount of water in both the glasses. Then add sugar to the first glass and ~~put~~ put the spoon in the second glass.

Observation :- We observed that the water level has been increased in the glass where the spoon was. But the water level remains the same in the glass with sugar.

Conclusion :- We conclude that particles of matter have space between them.



Q-12) Show by an activity the particles of matter attract each other.

Ans Aim :- To show that particles of matter attract each other.

Materials Required :- Iron nail, a piece of chalk and a rubber band.

Experiment :- Take the iron nail, chalk and rubber band. Try to hammer, cutting or stretch. ~~It is~~ that it is

Observation :- We observe, easier to break the chalk, less easier to break the rubber band and difficult to break the iron nail due to the attractions between particles of matter.

Conclusion :- We conclude that particles of matter attract each other.

Q-13) What do you mean by Mass? How does it differ from the weight of an object?

ans Mass is the quantity of matter contained in the body. Where is weight, an object is acting on the gravit due to gravity

Q-14) What do you mean by intermolecular force of attraction? How does it vary with reference to the solids and liquids.

ans The force of attraction between the molecules of matter is called intermolecular force of attraction. It is more in solids and less in liquids

Q-5) Expand LPG. Mention its use.

Ans LPG stands for Liquefied Petroleum Gas.
It is used for cooking food.