

Assignment - 1

① The Five basic elements of which matter is made up of ~~are~~ according to the ancient philosophers are :-

- * Prithivi (Earth)
- * Jal (Water)
- * Vayu (Air)
- * Agni (Fire)
- * Akash (Space)

② Matter is anything that occupies space and has mass and can be perceived by our sense organs. Ex: gold, rock, oxygen, water, etc.

③ Atom is the smallest particle of an element whereas Molecule is the smallest particle of an element or compound.

④ The ~~are~~ characteristics of particles of Matter are :-

- * It has mass and occupies space
- * It is made up of atoms

* They can't be independent and hence combine and form molecule.

5) Solid :-

* It has definite shape and volume.

* Its molecules are closely packed.

* It is high in density.

* It is very rigid and cannot flow.

Liquid :-

* It has no fixed shape and has fixed volume.

* Its molecules are not closely packed.

* It is moderate in density.

* It is less rigid and can flow easily.

Gas :-

- * It has no fixed shape and no fixed volume.
- * It's molecules are at a greater distance from each other.
- * It is very low in density.
- * It isn't rigid ~~and~~ and flow easily.

⑥ Sublimation is the process in which the body directly changes its form from solid to gas. Ex: Camphor, menthol

⑦ 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.

The factors are :-

* Change in temperature

* By applying pressure.

8) All substances that can flow are called fluids. Ex: water and air

9) a) Condensation

b) Sublimation

c) Fluid

10) a) When a teaspoon of sugar added to 100 ml of water does not increase its volume because sugar is a solid which has a characteristic of solubility.

b) A sponge can be compressed easily even though it's a solid because they have pores within them which are filled with air.

11) Materials Required: Glass tumbler, marbles

Objective: to show that matter has space

Method: Take a glass tumbler, fill some water. Put a mark on the level of the water. Now add ~~some~~ put some marbles in it. Now you will notice the level ~~of~~ of water rises up. This is because of ~~the~~ matter occupies space.

12) Material Required: Coin, Chalk, Rubber band.

Objective: Activity to show that particles of matter attract each other

Method: Take a chalk boy to break it, it will easily break, For rubber band it will be a bit tougher, And for coin it will be very tough enough to break it. It shows that the particles of matter attract each other.

(13) The quantity of matter that a body contains is known as mass.

Mass :-

- * Mass is the amount of matter contained in a body
- * Mass always remain constant
- * It can be measured by a beam balance

Weight:-

- * Weight is the measure of gravity acting on the body.
- * Weight changes from place to place
- * It can be measured by using spring balance

(14) Intermolecular force of attraction acts between neighbouring particles which helps it to keep the particles together. Solids have strong, Liquids also have strong enough and Gas has extremely low intermolecular force of attraction.

(15) LPG = Liquefied Petroleum Gas

It is used ~~as~~ as fuel in heating, cooking, automotive appliances

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