

Bhaswan Sarda  
chemistry  
Exercise - I

1. Matter :- The solid like chair, table, books etc. The water we use daily and the air which we breathe are made of small tiny structures is called matter.

2. The two types of matter ~~is~~ <sup>are</sup> :-

(a) Living (animal and plants)

(b) Non-living (Air and water)

3. Living things :- Living things like animals and plants they move but plant do not move, they need food and water they reproduce a young one or egg for plants is seeds.

Non-living things :- Non-living things like water, air, soil, human-made etc.



they cannot move, they do not need water and food and they don't reproduce like living things.

4. Natural - wood, silk, coal, water, ~~or~~ cotton and fruits

Man-made - plastic, medicines, detergents, ceramic, glass and nylon

### Exercise - II

1. ~~The~~ The smallest particle is ~~Atom~~ <sup>Molecule</sup> Atom.

2. The tiny structures that cannot be seen in naked eyes called Molecules.

3. Molecules make ~~matter~~ matter and atoms make molecules.

4. a) The particles of matter are held together by a force of attraction



that exists between them are called intermolecular force of attraction.

b) particle of matter have space between them called as which is called intermolecular space.

5. Solid :- solid's molecule are tightly packed with each other.

liquid :- liquid's molecule are less tightly packed with each other.

gas :- gas's molecule are very far from each other and they roam ~~fast~~ freely.



6. All substances that can flow are called fluids. Example - Solids - Do not flow and ~~liquids~~ liquids - flow from a higher level to a lower level.

7. Solids - common salt, wax, stone, sugar, mercury, coal, butter, ~~tappan~~ and copper.

liquids - Milk, blood, coconut oil and kerosene.

gas - Oxygen, L.P.G. <sup>and</sup> Carbon dioxide.

8. a) Solids molecules are tightly packed with each other and cannot flow.

b) Air has no shape.

c) The scent spreads in a room because it is a gas.

d) The air is all around us.



e) Because water flow freely.

f) Because sugar molecules are mixed with water molecules.

g) yes, because the water gas are all around us.

b) because the water molecule mixed with red colour molecule and turned it into red.

9. a) cohesive force :- The force of attraction between like particles on molecule is called cohesive force.

b) ~~is~~ diffusion :- The phenomenon of intermixing of particle of one kind of another kind through a natural movement is called diffusion



9. Brownian movement: The zig-zag motion of particles suspended in a medium is called Brownian movement.

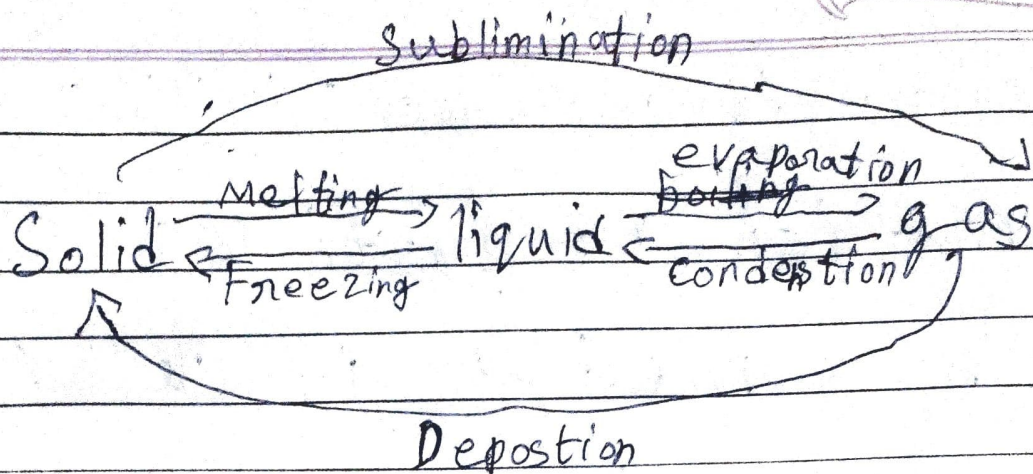
10. Because the air was pushing under the egg and kicked out.

Exercise - III

1. Lightening a candle → The wax became → then liquid  
was became Carbon dioxide + water vapour.



2. a)



b) Expansion and contractions are two

of interconversion state of matter.

3. a) Fusion:— The process by which a substance changes from solid state to liquid state is called fusion.

b) Vaporisation:— The process by which substance changes from a liquid state to vapour state is called vaporisation.

c) Condensation:— It is the temperature at which a gas state changes into its liquid state is called condensation.



d) Sublimation :- The solid changes into gaseous state ~~without~~ without changing into liquid is called sublimation.

e) Diffusion :- The particles of one kind can mix with the particles of another kind through a natural movement called diffusion.

f) Melting point :- The fixed temperature where solid changes into liquid is called melting point.

g) Boiling point :- The fixed temperature where liquid changes into gas is called Boiling Point.

h) Liquefaction :- The gaseous state changes into water is called liquefaction.



4. a) Solidification:- The solid changes directly to gas is called solidification.

Condensation:- The gaseous state changes into liquid called condensation.

b) Melting:- The <sup>fixed</sup> temperature in which solids changes into liquid is called Melting.

Boiling:- The fixed temperature in which liquid changes into gas is called Boiling.

c) gas:- gas molecules are too far away from each other and they roam freely, they are called gas.

Vapour:- The temperature in which



water changes into gas is called vapour.

4) Miscible liquids:- Liquids which mix with each other called miscible liquids.

immiscible liquids:- Liquids which do not mix with each other called immiscible liquids.

5. A chemical change on ~~heating~~ is a permanent change in which new substances are formed from the substances taken. Thus, it is different from interconversion.



6. Liquid changes into gas through boiling of water.

7. The water is heated by sun and becomes ~~of~~ gas, and then the gas changes into water by condensation.

8. The ball is not able to pass the ring, this shows that a solid expands on heating.

9. Because rest of the candles are become gas that's why candle become smaller.



2. a) Characteristics of pure substances are:-

- Pure substances are of two types, i.e., element and compounds.
- Elements are made up of only one kind of atoms and compounds are made up of molecules.
- They have uniform composition throughout, i.e., they are homogeneous.
- They have a definite set of physical and chemical properties.
- They have fixed melting and boiling points.
- Pure substances have characteristic colour, odour and taste.
- Pure substances cannot be broken into simpler substances by any physical means.



b) Elements

Elements are made up of only one kind of atoms.

Compounds

Compounds are made up of only one kind of molecules.

ii) Homogeneous

Homogeneous are uniformly mixed.

Heterogeneous

Heterogeneous are with non-uniform composition.