# Assignment - 1

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1. Ans- The five basic elements are air, water, Earth, sky and fire.

2. Ans- Matter is anything that has mass, occupies space and can be perceived by our senses. Ex- Books, Buildings, trees etc.

3. Ans

| Atom | Molecule |
|---|---|
| ➤ They may or may not have independent existance. | ➤ They are capable of independant existance. |

4. Ans- The characterstics of particles of matter are :-
- ➤ Particles of matter have space between them.
- ➤ Particles of matter are always in random motion.
- ➤ Particles of matter attract each other.

5. Ans

| | Solids | Liquids | Gases |
|---|---|---|---|
| i) | Molecules are closely packed; have negligible intermolecular space. | i) Molecules are not closely packed; have more intermolecular space. | i) Molecules are at a greater distance from one another; have the max. intermolecular space. |
| ii) | Have fixed shape. | ii) Have no fixed shape. Take the shape of container in which they are kept. | ii) Have no fixed shape. Take shape of the container in which they are filled. |

| | | |
|---|---|---|
| iii) Have fixed volume. | iii) Have a fixed volume | iii) Have no fixed volume. |
| iv) Do not flow | iv) Flow from a higher level to a lower level. | iv) Flow in all directions |
| v) Effect of pressure is very low. | v) Effect of pressure is higher than on a solid. | v) Effects of pressure is very high. |

6. Ans The materials that change directly from solid to gaseous state on heating ~~and vice versa on cooling~~ is called sublimation.

7. 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 chemical composition. The factors are pressure and temperature.

8. Ans All the substances that can flow are called fluids. Ex - Liquids and gas.

9. Ans a) Vaporisation
b) Sublimation
c) Fluid.

10. Ans a) The sugar particles being smaller get adjusted between the water molecules. This shows that there are intermolecular spaces in water.

b) The sponge is a porus material which has air trapped in it. The air escapes and sponge particles become adjusted ~~between the~~ in space between them when it is compressed.

11. Ans • Aim - Particles of matter have space in between them.

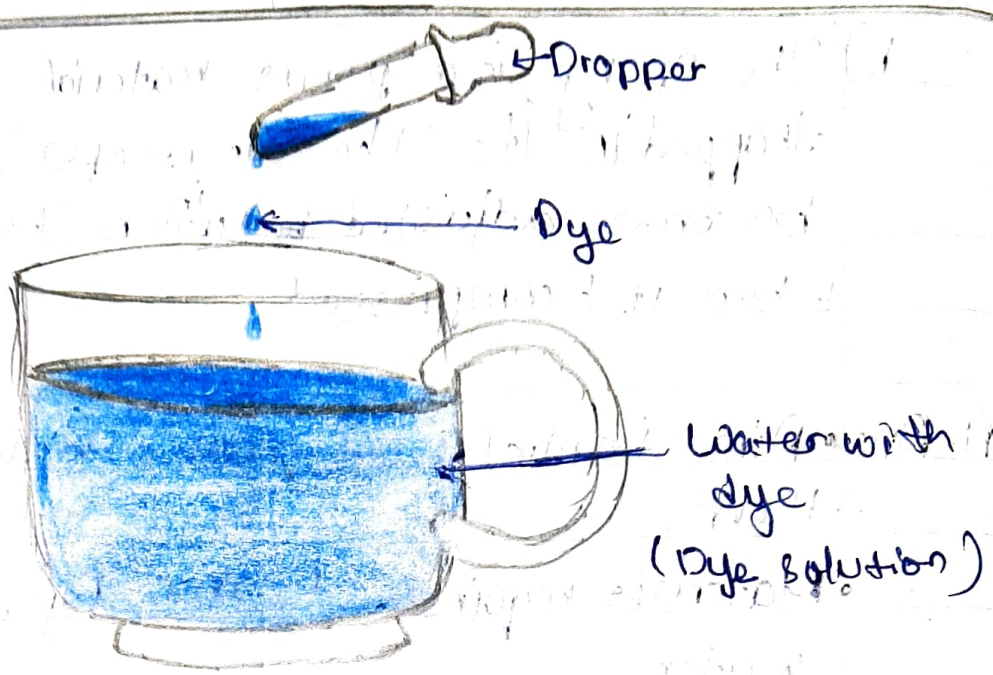
• Materials required - Beaker, Dye, Dropper and some water

• Procedure - Take some water in a beaker. Put a few drops of dye with the help of a dropper.

• Observation - When the dye is put into water, the dye moves around the water and makes the whole water same to the dye and dissolves

• Conclusion - This activity proves matter has space. As we dissolve dye in the water, we can see there is no change in the level of water. Water particles have spaces called intermolecular space. Sugar particles occupy those spaces.

~~13 Ans.~~




Ans 12. Aim- Particles of matter attract eachother.

- Materials required - Wood, chalk, water and a spoon.
- Procedure - Try to breake the wood by applying force on it. Try to break the chalk and it breaks to two pieces. Take some water in a spoon and throw it up and the droplets of water start falling in a sherical shape.
- Observation - The wood ~~breaks~~ doesn't break, the chalk breaks into two pieces, the water droplets fall in a spherical shape.
- Conclusion - This proves that there is inter-molecular force of attraction between the molecules of wood, chalk and water.

13. Ans - The quantity of matter that a body contains is known as mass. Mass and weight are different from each other because mass is the quantity of matter but weight is the force with which the Earth pulls a body towards itself. The mass of a body does not change but its weight changes from place to place.

14 Ans- There exists a force of attraction between the particles of molecules of matter, which holds them together. This attraction is known as intermolecular force of attraction. The inter molecular force of attraction is very strong in solids but very weak in gases.

15. Ans- The full form of LPG is Liquified Petroleum Gas. They are sold in gas cylinders and are used for cooking.