AHW
15/5/21

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

Ans- 1) Prithvi (Earth)
2) Jal (Water)
3) Agni (Fire)
4) Vayu (Air)
5) Akash (Space)

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

Ans - Matter is anything that has mass, occupies space and can be perceived by our senses.
Ex:- Water, sugar, alcohol, milk, etc.

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

Ans - Atom is a smallest particle of a element which consist of proton, neutron & surrounded by electrons but molecules is a group of 2 or more atoms combined together which consist of bonded atoms.

4) Mention the characteristics of the particles of matter.

Ans- 1. The particles of matter are very, very small.
2. The particles of matter are constantly moving.
3. The particles of matter have space between them.

5) Differentiate ~~between~~ between solid, liquids and gases.

Ans-	Solid	Liquids	gases
1)	The molecules are held together with strong bonds.	The molecules have weaker bonds.	The molecules are free to move around.
2)	They don't move very easily so solids can keep their own shape and size.	They can move around slightly so liquid can flow. They can't keep their shape unless they're in a container.	They can spread around an open space quickly and freely. Gases can't keep their shape unless they are kept in a sealed container

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

Ans- Sublimation is the transition of a substance directly from the solid to the gas state, without passing through the liquid state. Eg- camphor, naphthalene, iodine crystals, etc.

7) What do you mean by interconversion of the 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. The factors that cause the interconversion are:-

* change in temperature
* by applying pressure.

8) What do you mean by Fluids? Give Examples

Ans- All substances that can flow are called fluids. Eg - Liquids and gases

9) Give one word for the following:-

a) The change of vapour into a liquid.
condensation

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

c) The substances that can flow. Fluids

10) Give Reason for the following:-

a) A teaspoon of sugar added to 100 ml of water does not increases its volume.

Ans- A teaspoon of sugar added to 100 ml of water does not increases its volume because the sugar particles being smaller get adjusted between the water molecules. This shows that there are intermolecular spaces in water.

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

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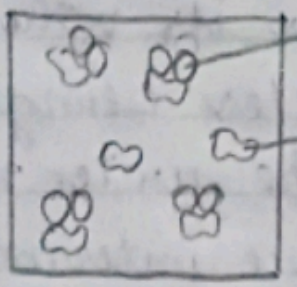
Ans- A sponge can be compressed through it is a solid because it have spaces between them.

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

Ans- Take half a glass of water. Add a spoon of sugar to it and stir well. The sugar disappears but the level of water in the glass does not rise, that means the volume of water has not increased. But where did the sugar particles disappear?

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



12) Show by an activity ~~to show~~ the particles of matter attract each other.

Ans- Take some water in a table spoon and throw it up. What do you observe? Falling droplets of water are sherical in shape.
Why are they spherical? Because water molecules hold each other.

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

Ans- Mass is a measure of the amount of matter in an object. Mass is the actual amount of material contained in a body whereas weight is the force exerted by the gravity on that object.

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

Ans- There exists a force of attraction between the particles or molecules of matter, which holds them together. This is known as intermolecular force of attraction. In solid, the intermolecular force of attraction is very strong and intermolecular space is almost negligible but in gas, the intermolecular force of attraction between the particles is very weak and the space between them is large.

15. Expand L.P.G. Mention its use.

Ans- Liquified Petroleum Gas. It is used for the cooking gas sold in the gas cylinders.