**L3: MATTER**

**5. Answer the following questions.**

**Q1.What is matter made up of?**

 Matter is made up of molecules.

**Q2. Name the basic states of matter.**

Solid, liquid, and gas are the three states of matter.

**Q3. In which state of matter are the particles separated by large spaces? Explain with the diagram.**

Molecules are separated by large distances in gases.

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**Q4. Name the state of matter in which the forces of attraction between the particles are the strongest.List the properties of this state of matter.**

The forces of attraction between the molecules are the strongest in solids.

i. In solids ,the particles are closely packed.

ii.There are strong force of attraction between the particles.

iii.The force hold the particles together,this gives solid a definite volume.

iv.There are almost no spaces between the particles to move around.so,they can't move away from one another.

v. Solids cannot flow.

Vi.Solids have definite shape,size and volume.

**Q5. Is the conversion of water vapour into water a chemical change? Give reason.**

The conversion of water vapour into water is not a chemical change as it is only a change in the state of matter and no new substance is formed.

**Q6.Give three examples of physical and chemical changes.**

 **Examples of physical change:**

 i)Water changing into ice ii)Breaking a rock iii)Tearing a sheet of paper

 **Examples of chemical change:**

 i)Burning of wood ii)Cooking an egg iii)Rusting of iron

 **Extra questions**

**Q1.What are the characteristics of a chemical change? Explain with an example**

 i)In a chemical change, the molecules of a substance change and a new substance is formed.

 ii) Generally chemical changes are permanent and irreversible.

For example, when paper is burnt, ash is the new substance formed and the molecules of ash are different from those of paper.

**Q2.What is saturated solution?**

When a solution cannot dissolve any more of the solute, it is called a saturated solution.

**Q3.Write any three differences between physical and chemical change.**

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| **Physical change** | **Chemical change** |
| i) In a physical change, the particles of a substance remain the same and no new substance is formed.  | i) In a chemical change, the particles of a substance change and a new substance is formed. |
| ii) Most physical changes are temporary and reversible.  | ii) Chemical changes are permanent and irreversible.  |
| Ex:Tearing of paper | Ex:Burning of paper |

**Q4.Draw a neat labelled diagram of arrangement of particles in solid liquid and gas.**

**HOTS**

**Q1.How is a burning candle an example of both physical and chemical changes?**

The physical change occurs when the wax of candle melts and it loses its shape and does not form new substance. The chemical change is burning of wax in presence of oxygen. This leads to the production and emission of carbon dioxide and water vapour.

**Subject teacher Science HOD Principal**