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**CARMEL SCHOOL, MADHUPUR**  
**SUBJECT: PHYSICS**  
**CLASS VI**

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**CHAPTER 1**

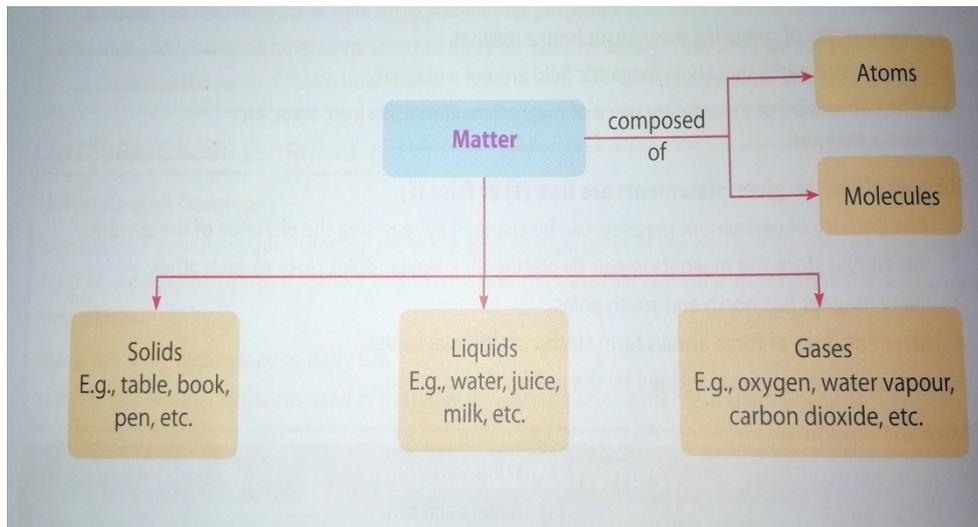
**MATTER**

**SHORT AND PRECISE**

A. Show the following process in the form of flowcharts.

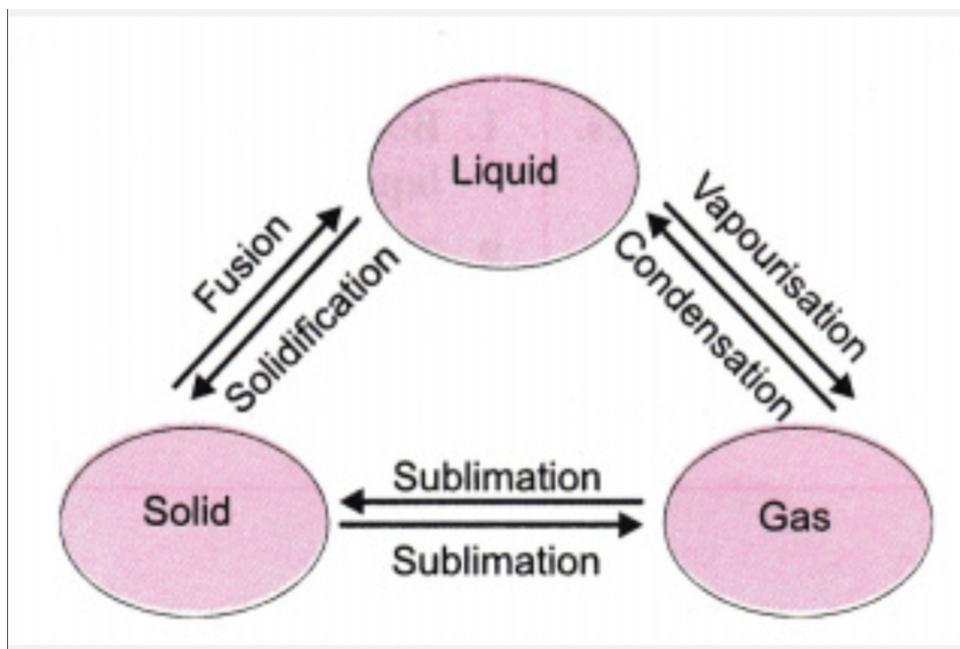
1. States of matter

Answer:



2. Inter-conversion of states of matter

Answer:



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**B. Give reasons for the following statements.**

1. Solids have a fixed shape.

**Answer:** Solids have a fixed shape because the molecules of solids are held together in a fixed position by a very strong intermolecular force of attraction.

2. Solids expand very little on heating.

**Answer:** Solids expand very little on heating due to the strong intermolecular force of attraction between the molecules.

3. The fragrance of incense stick spreads out in air to a distance.

**Answer:** The fragrance of incense stick being gas undergoes diffusion and can move freely in all directions. Hence, spreads out to a distance.

4. Molecules of gases move freely in all directions.

**Answer:** Molecules of gases move freely in all direction because the intermolecular force of attraction is least and intermolecular spaces are very large, hence gases can fill up the space available to them

5. Liquids expand more than solids.

**Answer:** Liquids expand more than solids because they have weak intermolecular force of attraction as compared to solids.

**C. Answer in short.**

1. How is an atom different from a molecule?

**Answer:** Atom may or may not have independent existence. Molecules have independent existence.

2. Explain diffusion from the help of an example.

**Answer:** The phenomenon of inter mixing or spreading of gaseous molecule is called diffusion. For example - The odour of perfume spreads in the room due to the intermixing of the molecules of perfume and air.

3. Do gases have a fixed shape and size? Give reason.

**Answer:** No, gases do not have fixed shape and size because the molecules in gases are very apart from each other and the intermolecular forces of attraction in gases are the weakest.

4. Why can the molecules in a liquid move freely?

**Answer:** The molecules in a liquid are less densely packed and have weaker forces of attraction. Hence, the molecules in a liquid can move freely.

