



## Matter

### Synopsis

1. Horse, mango tree, dog, animals, plants are living, while stone, pen, glass, water, book, table, air are non-living.
2. All the above mentioned things living and non-living are matter.
3. Energies like light, sound, heat are not matter, as these have no mass.
4. **Matter:** "Anything that has mass and occupies space is called matter." Matter (mass) remains same at all places.
5. Molecules of matter are in motion.
6. The things which are similar in one or more ways are grouped together and this practice is classification.
7. There are inter-molecular gaps (spaces) and inter-molecular attraction (force of attraction) between molecules.
8. Solids are rigid, have definite volume, retain their shape and are incompressible.
9. Liquids can flow, have definite vol., have no definite shape. Have only one free surface.
10. Gases Have no definite volume, no definite shape can flow are compressible.
11. Inter-molecular force: Solids > Liquids > Gases.
12. Inter-molecular volume: Solids < Liquids < Gases.

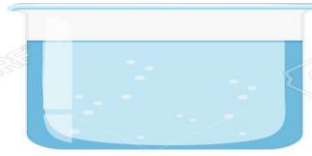


Follow the picture illustrations for understanding the molecule structure and properties of solids, liquid, gas.

# States of Matter



Gas

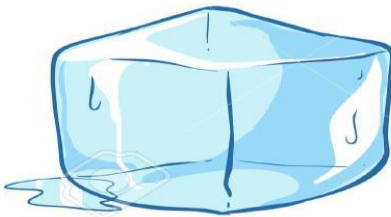


Liquid



Solid

# STATES OF MATTER



Solid



Liquid



Gas

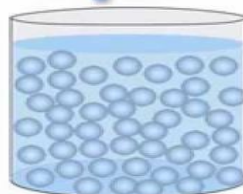
## solid



- rigid
- fixed shape
- fixed volume

cannot be squashed

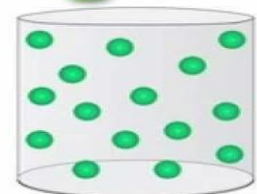
## liquid



- not rigid
- no fixed shape
- fixed volume

cannot be squashed

## gas



- not rigid
- no fixed shape
- no fixed volume

can be squashed