

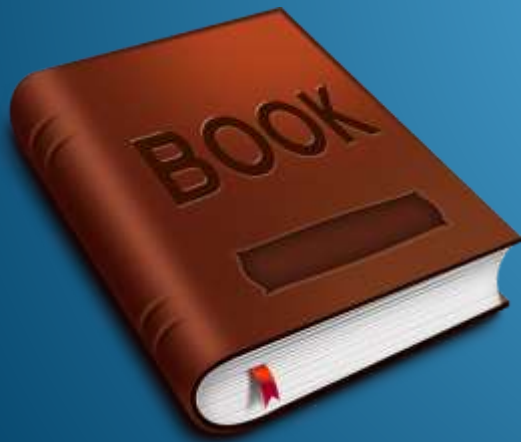
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STATES OF MATTER



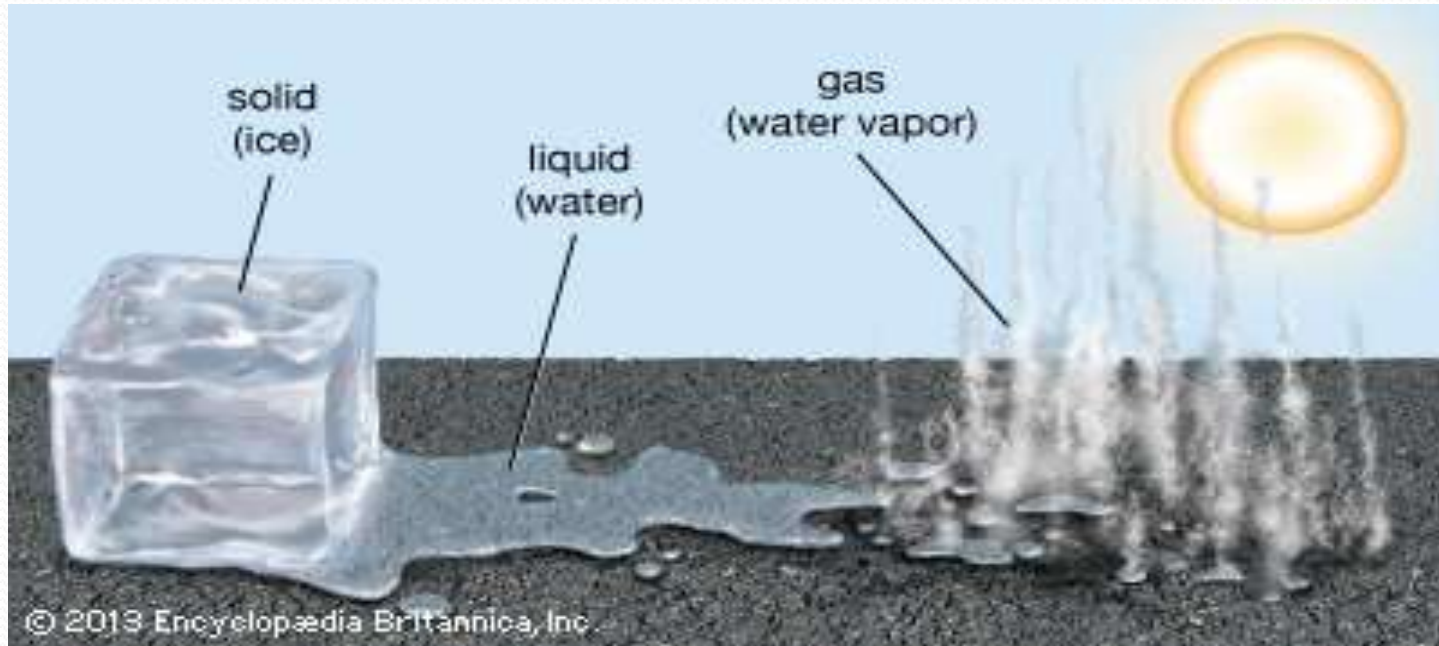
MATTER : Anything that occupies space and has mass is called Matter.

Examples : Book , Wood, water , carbon - dioxide gas etc.

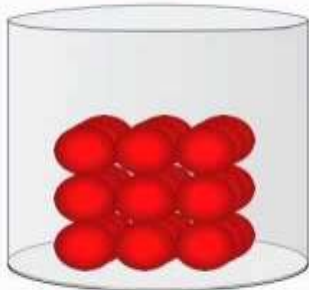


Physical classification of Matter

Three physical forms of Matter Solid, liquid and gas are called **States of Matter**.



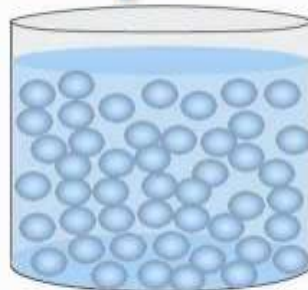
solid



- rigid
- fixed shape
- fixed volume

cannot be squashed

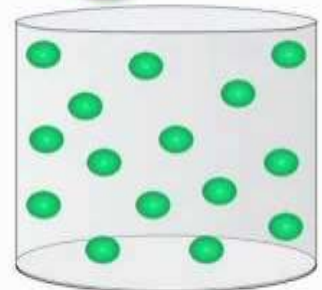
liquid



- not rigid
- no fixed shape
- fixed volume

cannot be squashed

gas



- not rigid
- no fixed shape
- no fixed volume

can be squashed



Chemical classification of Matter

All kinds of matter can be classified into two types

1) Pure Substances : These have same composition and physical properties.

Example – Iron, copper, Aluminium , Silver , Water , Sugar , Salt etc.

Pure Substances are of two types

1. **Elements** : These are the simplest form of pure substance.

Example : Iron, Copper, Aluminium and Silver etc.



Compounds : These are the pure substance containing two or more elements in definite ratio.

Example : Salt, Sugar , fat, oil and water etc.



2) Mixture : Mixture is obtained by mixing of two or more substances in any proportion.

Example – 1. Milk (Mixture of Water and fat molecules)

2. Air (Mixture of oxygen, Nitrogen and Hydrogen etc.)

3. Steel (Mixture of Iron and Carbon)

4. 22 Carrat gold (Mixture of Gold and Copper Metals)

5. Mixture of Sugar in Water



Mixture/Solution is of two types

1) Homogeneous Mixture (True Solution):

Composition of homogeneous mixture is uniform throughout. Its components are not visible with naked eye. It consist of single Phase. These are also known as true solutions.

Example- Sugar in water form homogeneous mixture in which sugar is solute and water is solvent, Air, Steel etc.

When sugar dissolve water it form homogeneous mixture



2) Heterogeneous Mixture

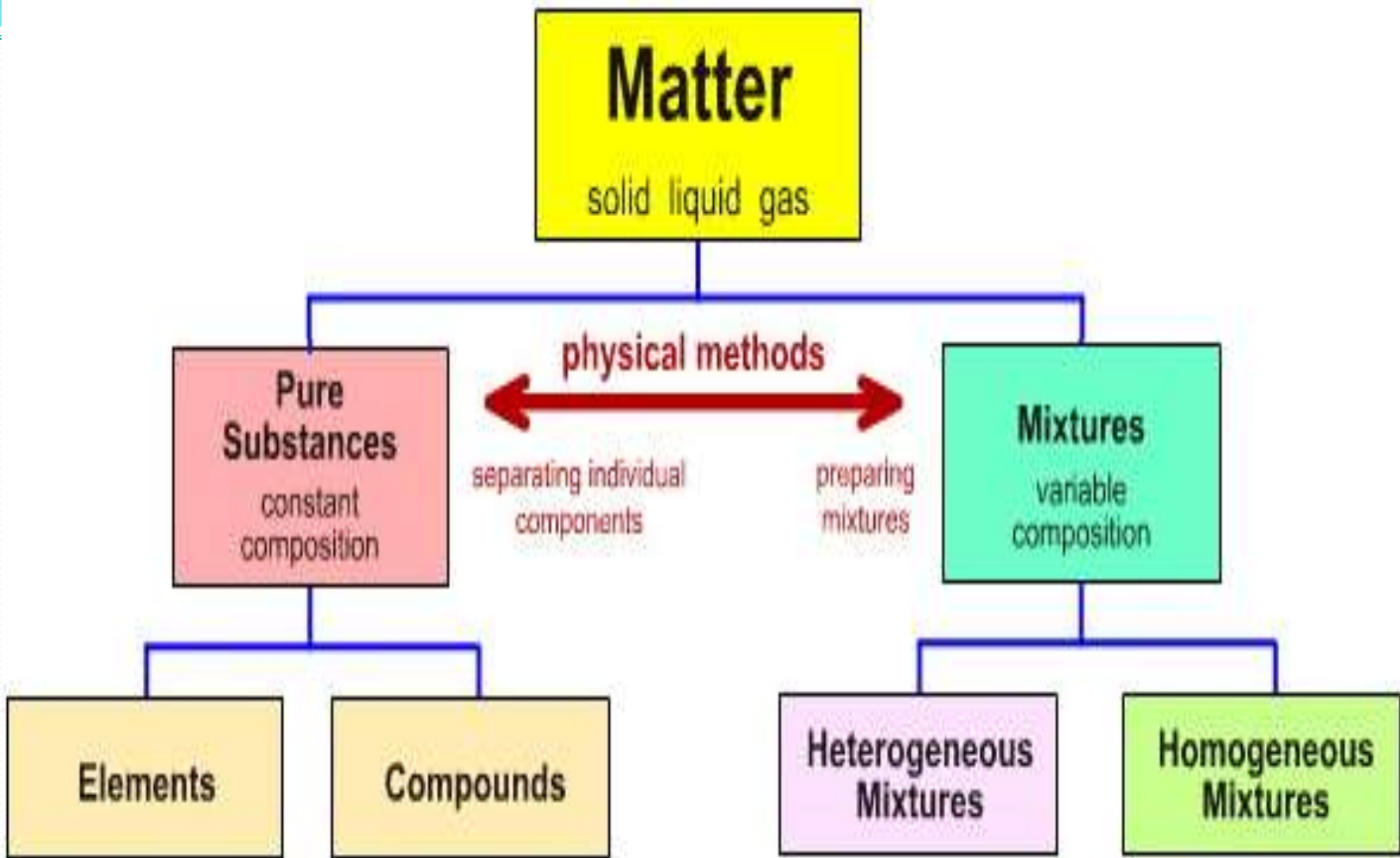
The composition of Mixture is not uniform throughout. It consist of two or more phases. Its components are visible with naked eye.

Example- Sand in water

Milk(Fat in liquid)

Mixture of iron, sulphur and common salt etc.





Q.1 What is Matter?

Q.2 Name physical states of Matter.

Q.3 Give examples of solid, liquid and gaseous forms.

Q.4 Give the example of pure elements.

Q.5 Give example of homogeneous mixture and heterogeneous mixture.



THANK YOU