Cosmo School

Science

Class-VI

Chapter-8

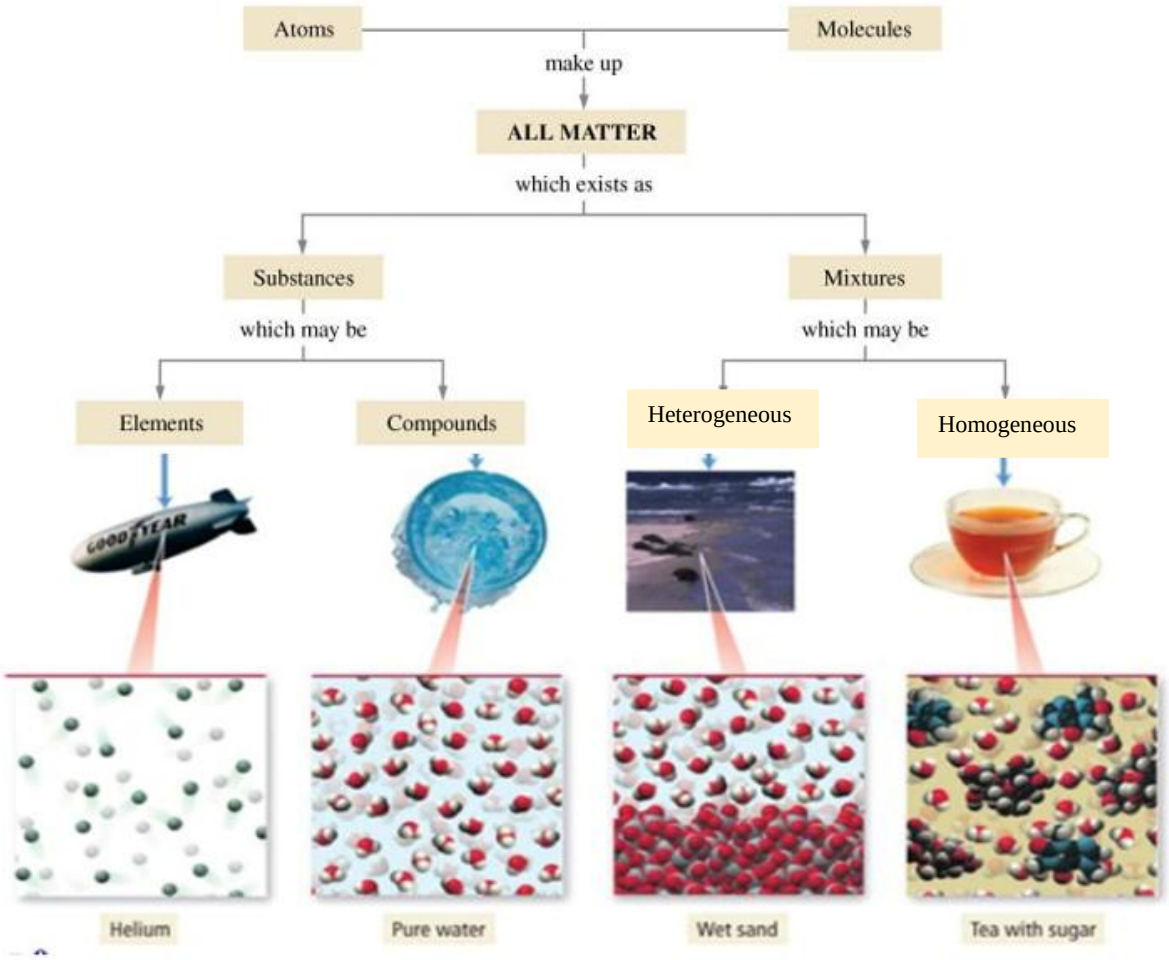
Mixture

Subject teacher- Syeeda Sultana

Lecture sheet with worksheet-1

Date-02.11.2020

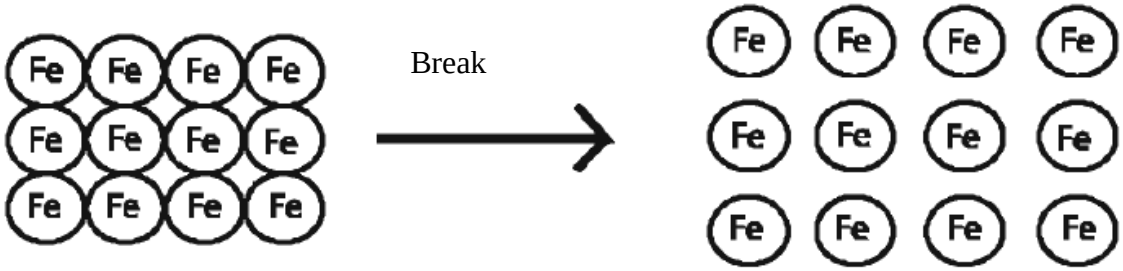
Classification of matter



Element:

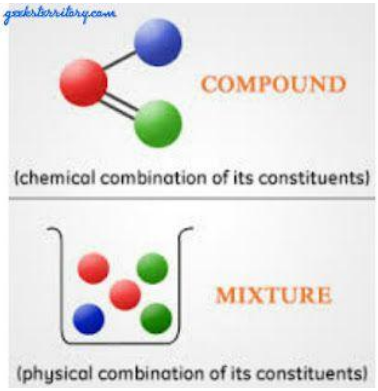
Element is a pure substance that cannot be broken down into a simpler substance by ordinary chemical changes. An element consists of atoms of only one type.

Iron is made of some small particles of iron. If we break iron, we will find some small particles of iron only. That means iron (Fe) consists of only one component.



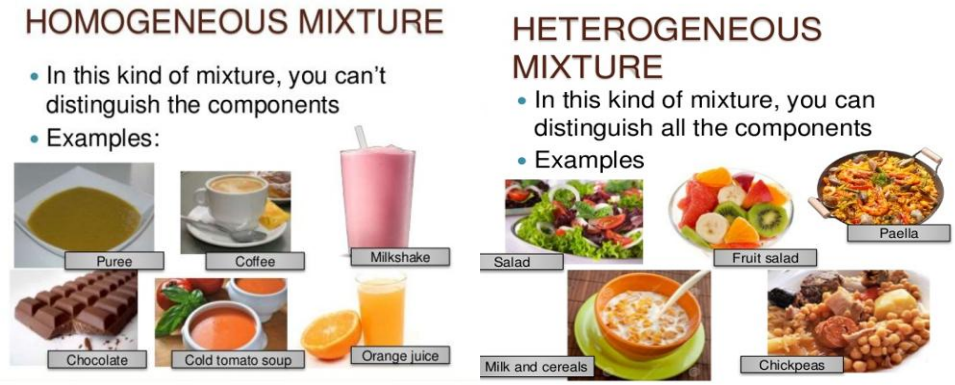
Compound:

Compound is a substance made up of two or more atoms bonded together.
Unlike elements, compounds can be broken down to simpler substances through chemical changes.
Example, H_2O, CO_2, $C_6H_{12}O_6$(glucose) etc.
If water breaks, two elements hydrogen(H) and oxygen(O) will be found.



Mixture:

- Mixture is a combination of two or more pure substances that are not chemically combined.
- Substances held together by physical forces, not chemical.
- Each component retains its original properties in the mixture.
- They can be separated using physical methods: heating, drying, crystallization, distillation etc.



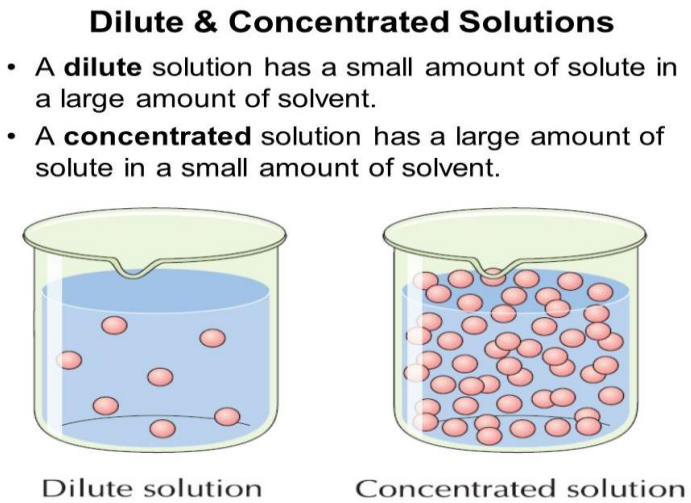
Solution:

- A solution is a mixture where one of the substance dissolves in the other.
- The substance that dissolves is called solute.
- The substance that the solute dissolves in is called solvent.
- For example, salt water, sugar water etc.
  Salt, sugar = solute
  Water = solvent

$$\text{Solute} + \text{Solvent} \underset{\text{Dissolve}}{\overset{\text{Crystallize}}{\leftrightarrows}} \text{Solution}$$

Concentration of solution:

The amount of substance per unit volume of solution is known as concentration of solution.



Exercise:

1. Write the right type of mixture: Homogeneous or Heterogeneous

2. Discuss the classification of matter.

3. What is solution, solute and solvent?

4. What is meant by dilute and concentrated solution?

5. We can differentiate concentrations of different coloured solutions by looking at them.— prove it experimentally.

6. Differentiate between compound and mixture.

7.What is called watery solution?