

Chapter - 3

ATOMS AND MOLECULES

→ Atoms

The smallest entity of an element, which shows the properties of that element.

→ Molecules

The smallest entity of a compound.

- Now, all these reactions and combinations were going on, so we needed to find some laws that can govern the chemical reactions.

- Gattu loves football, but when he doesn't know the laws of football then how will he play it.

→ Laws of Chemical Combination

- This law was established after the experiments by Lavoisier and Joseph L. Proust.





→ Valency

- The combining capacity of an element is known as its valency.
- Valency is used to find out how the atom of an element will combine with the atom of another element to form a chemical compound.

(Every atom wants to become stable, to do so it may lose, gain or share electrons)

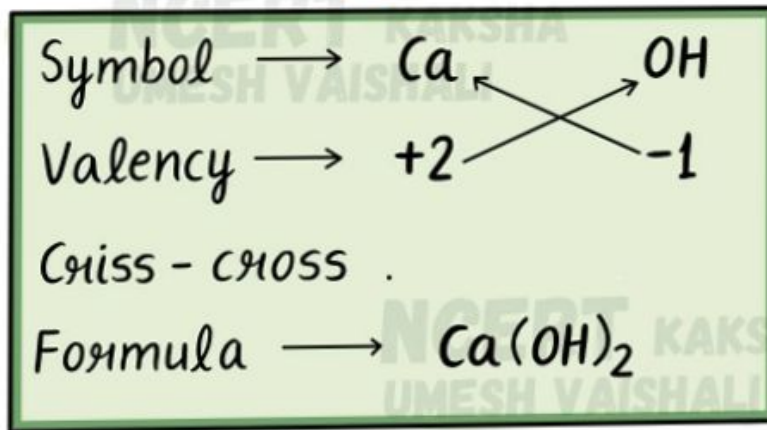
→ If an atom consists of 1, 2 or 3 electrons in its valence shell then its valency is 1, 2 or 3 respectively

→ If an atom consists of 5, 6 or 7 electrons in the outermost shell then it will gain 3, 2 or 1

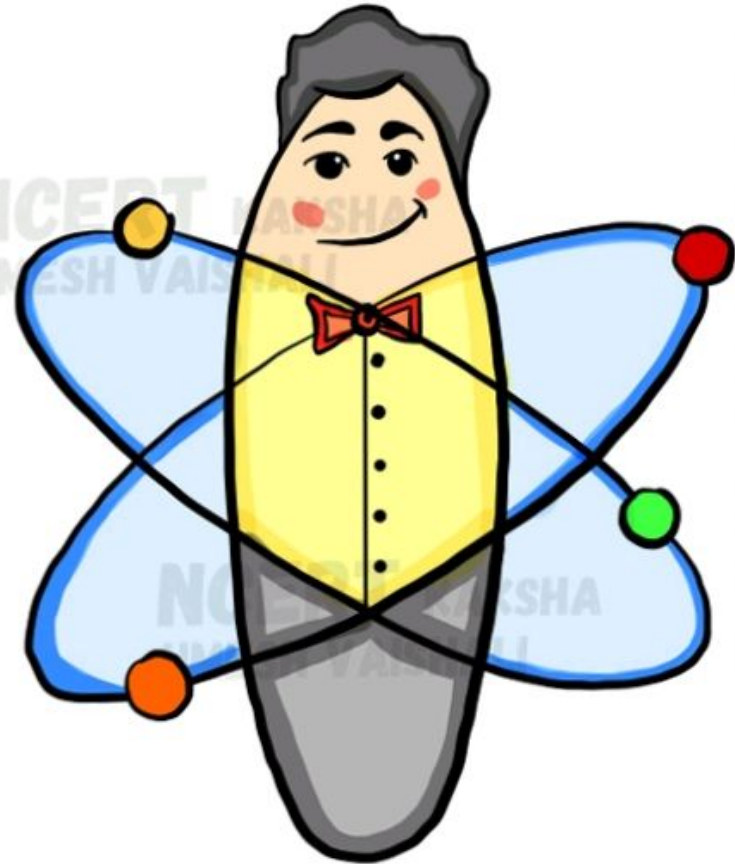
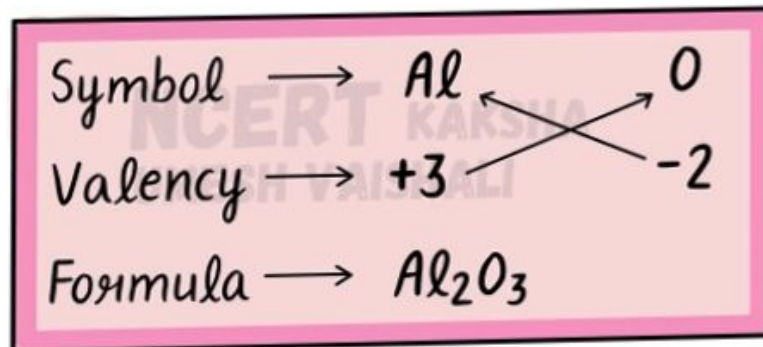
5. With the second atom, we write the valency of first atom (subscript).

➡ Chemical formula of some simple compounds

a) Calcium hydroxide



b) Aluminium oxide



➡ Molecular Mass

- It is the sum of atomic masses of all the atoms