

Unit 3 Stoichiometry

Lesson 90 Chemical formulas

Introduction of importance

Chemical formulas are chemical shortcuts

Chemists use symbols to represent elements and chemical formulas to represent compounds.

A compound is a distinct substance composed of 2 or more elements.

A compound has a fixed composition.

∴ formula is always same

H_2O is always H_2O .

That is subscripts are never changed.

Examples

$NaCl$ = sodium chloride

For ionic use formula unit as lowest whole number ratio for ions

CO_2 → 1 carbon 2 oxygens

$MgCl_2$ → 2 chlorides for each magnesium ion

Rules for writing formulas

1. Each atom present is represented by its element symbol
2. The number of atoms is designated by subscript
3. Subscript "1" is never written