

The Language of Chemistry

Chapter 1: The Language of Chemistry · Topic 1

Key Concept

Each element has a unique chemical symbol, like Na for sodium or Fe for iron, forming a universal shorthand recognised worldwide.

Chemical formulas show the elements present in a compound and their ratio, like H_2SO_4 showing 2 hydrogen, 1 sulfur, and 4 oxygen atoms.

Balancing chemical equations ensures the same number of each type of atom appears on both sides, following the law of conservation of mass.

Valency, the combining capacity of an element, determines how many bonds an atom can form, helping us write correct chemical formulas.

Quick Revision Notes

- Each element has a unique chemical symbol.
- Na=sodium, Fe=iron are examples.
- Formulas show elements and their ratio.
- H_2SO_4 has 2H, 1S, 4O atoms.
- Balancing equations follows conservation of mass.
- Equal atoms must appear on both sides.
- Valency is an element's combining capacity.
- Valency helps write correct formulas.

Practice Questions

- 1 Write the chemical symbols for five elements.
- 2 Write the formula for sulfuric acid and explain its parts.
- 3 Balance a simple chemical equation.
- 4 Discuss the concept of valency.
- 5 Research the valency of common elements.
- 6 Explain the conservation of mass in your own words.