

The Periodic Table

Chapter 5: The Periodic Table · Topic 1

Key Concept

Elements in the periodic table are arranged in rows (periods) and columns (groups), with elements in the same group sharing similar chemical properties.

The periodic table reflects periodic trends, like atomic size generally decreasing across a period and increasing down a group.

Metals are found on the left side of the table, non-metals on the right, with metalloids forming a boundary between them.

Understanding the periodic table helps predict element properties and behaviours, making it an essential tool in chemistry.

Quick Revision Notes

- Elements are arranged by increasing atomic number.
- Rows are periods; columns are groups.
- Same-group elements share similar properties.
- Atomic size decreases across a period.
- Atomic size increases down a group.
- Metals are on the left side.
- Non-metals are on the right side.
- Metalloids form the boundary between them.

Practice Questions

- 1 Find an element in the periodic table and identify its group and period.
- 2 Discuss the trend in atomic size across a period.
- 3 Discuss the trend in atomic size down a group.
- 4 Identify a metal, non-metal and metalloid.
- 5 Research why the periodic table is organised this way.
- 6 Discuss the usefulness of the periodic table in chemistry.