

Metals and Nonmetals

Chapter 7: Metals and Nonmetals · Topic 1

Key Concept

Metals are typically shiny, good conductors of heat and electricity, malleable (can be hammered into shapes), and ductile (can be drawn into wires).

Nonmetals are typically dull, poor conductors of heat and electricity, and brittle (breaking rather than bending) when solid.

Metals tend to lose electrons to form positive ions, while nonmetals tend to gain electrons to form negative ions in chemical reactions.

Understanding metal and nonmetal properties helps explain their uses, like metals in wiring and construction, nonmetals in various compounds.

Quick Revision Notes

- Metals: shiny, good conductors, malleable, ductile.
- Nonmetals: dull, poor conductors, brittle.
- Metals lose electrons, form positive ions.
- Nonmetals gain electrons, form negative ions.
- This happens in chemical reactions.
- Metals used in wiring, construction.
- Nonmetals used in various compounds.
- Properties determine practical uses.

Practice Questions

- 1 Classify five elements as metals or nonmetals.
- 2 Discuss the properties of a metal you know.
- 3 Discuss the properties of a nonmetal you know.
- 4 Test the conductivity of a metal object if possible.
- 5 Discuss why metals are used in wiring.
- 6 Explain metal and nonmetal differences in your own words.