

Metals and Non-metals

Chapter 13: Metals and Non-metals · Topic 1

Key Concept

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

Non-metals typically lack these properties, being dull, poor conductors, and brittle (breaking rather than bending) when solid.

Examples of metals include iron, copper, and gold, while examples of non-metals include oxygen, sulfur, and carbon.

Understanding the properties of metals and non-metals helps us select appropriate materials for different uses, like wiring or construction.

Quick Revision Notes

- Metals are shiny, conductive, malleable, ductile.
- Non-metals are typically dull, poor conductors, brittle.
- Examples of metals: iron, copper, gold.
- Examples of non-metals: oxygen, sulfur, carbon.
- Malleable means can be hammered into shapes.
- Ductile means can be drawn into wires.
- Properties guide material selection.
- This applies to wiring and construction.

Practice Questions

- 1 List three metals and three non-metals.
- 2 Discuss why copper is used for electrical wiring.
- 3 Explain what malleable and ductile mean.
- 4 Research a use for a non-metal.
- 5 Compare the properties of iron and sulfur.
- 6 Discuss why gold is considered a valuable metal.