

Chemical Changes

Chapter 5: Changes Around Us: Physical and Chemical · Topic 2

Key Concept

Signs that a chemical change has occurred include a colour change, the production of gas (bubbles), the release or absorption of heat, or the formation of a precipitate (an insoluble solid appearing in a solution). Rusting, for example, happens when iron reacts slowly with oxygen and moisture in the air, forming reddish-brown iron oxide — this weakens the metal over time, which is why protective coatings like paint are used to prevent rust.

Quick Revision Notes

- A chemical change forms new substances and is usually not easily reversible.
- Examples: burning paper, rusting of iron, cooking food.
- Signs of chemical change: colour change, gas production, heat change, precipitate formation.
- Rusting occurs when iron reacts with oxygen and moisture over time.

Practice Questions

- 1 Explain why rusting is considered a chemical change.
- 2 List three signs that indicate a chemical change has taken place.
- 3 Suggest one way to prevent iron objects from rusting.