

Physical and Chemical Changes

Chapter 9: Physical and Chemical Changes · Topic 1

Key Concept

Physical changes, like melting, freezing, or cutting, change appearance or state but don't alter the substance's chemical makeup.

Chemical changes, like burning, rusting, or cooking, create entirely new substances with different chemical properties.

Signs of chemical change include colour change, gas production, temperature change, precipitate formation, or a permanent change.

Distinguishing between physical and chemical changes helps us understand and predict how substances behave and interact.

Quick Revision Notes

- Physical changes alter form, not chemical makeup.
- Examples: melting, freezing, cutting.
- Chemical changes create new substances.
- Examples: burning, rusting, cooking.
- Signs include colour change and gas production.
- Temperature change can indicate chemical change.
- Precipitate formation is another sign.
- Distinguishing changes helps predict behaviour.

Practice Questions

- 1 List three physical changes and three chemical changes.
- 2 Discuss why cooking an egg is a chemical change.
- 3 Explain why melting ice is reversible.
- 4 Research a sign that indicates chemical change.
- 5 Discuss an example of a precipitate forming.
- 6 Create a chart comparing physical and chemical changes.