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Academic Education GSEB › Class 9 › Science

Matter in Our Surroundings

Understanding Matter: The Building Blocks of Everything Around Us

DEFINITION

> Matter is anything that has mass and occupies space. It includes all physical substances we encounter daily.

KEY CONCEPTS

States of Matter

Matter exists in different states: solid, liquid, and gas, each with unique properties.

Physical Properties

These are characteristics like color, density, and boiling point that help identify matter.

Chemical Properties

These describe how matter interacts with other substances, such as reactivity and flammability.

Mixtures vs. Pure Substances

Mixtures contain two or more substances, while pure substances consist of only one type of particle.

Changes in Matter

Matter can undergo physical changes (like melting) or chemical changes (like rusting) that alter its state or composition.

EXAMPLES

→ Ice melting into water is a physical change.

→ Oxygen and hydrogen combining to form water is a chemical change.

→ Saltwater is a mixture of salt and water.

MEMORY TIPS

★ Remember 'Silly Little Giraffes' for Solid, Liquid, Gas.

★ Think of 'Penny Dimes' for Physical vs. Chemical properties.

★ Use 'Mighty Pure' to recall mixtures vs. pure substances.

COMMON MISTAKES

✗ Confusing physical changes with chemical changes.

✗ Not recognizing that gases also have mass.

✗ Assuming all mixtures are homogeneous.

QUICK RECAP

Matter is anything with mass and volume, existing in various states. Understanding its properties and changes is crucial for studying science effectively.