

Let's Separate the Components

Chapter 3: Let's Separate the Components · Topic 1

Key Concept

Filtration separates insoluble solids from liquids by passing the mixture through a filter, like separating sand from water.

Evaporation separates a dissolved solid from a liquid by heating the liquid until it evaporates, leaving the solid behind, like getting salt from saltwater.

Sieving separates solid particles of different sizes using a sieve, like separating stones from flour or rice from husk.

Choosing the right separation method depends on the properties of the mixture's components, like solubility, particle size, or density.

Quick Revision Notes

- Filtration: separates insoluble solids from liquids.
- Example: sand from water.
- Evaporation: separates dissolved solid from liquid.
- Example: salt from saltwater.
- Sieving: separates particles by size.
- Example: stones from flour.
- Method depends on component properties.
- Properties: solubility, particle size, density.

Practice Questions

- 1 Separate a mixture of sand and water using filtration.
- 2 Discuss how to get salt from saltwater.
- 3 Sieve a mixture of rice and small stones (or describe it).
- 4 Discuss which method suits a given mixture.
- 5 Research another separation method not covered here.
- 6 Explain filtration, evaporation and sieving in your own words.