

Methods of Separation

Chapter 9: Methods of Separation in Everyday Life · Topic 2

Key Concept

These methods are often combined in sequence for complex mixtures — for example, to purify muddy water, one might first let heavier particles settle (sedimentation), then filter the remaining liquid to remove finer suspended particles, and finally boil it to kill any microorganisms. Each method relies on a specific physical difference between the components, such as size (sieving), density (winnowing, sedimentation), or solubility (filtration for insoluble solids).

Quick Revision Notes

- Handpicking: removes larger impurities by hand.
- Winnowing: separates husk from grain using wind.
- Sieving: separates particles by size using a mesh.
- Filtration: separates insoluble solids from liquids; evaporation separates dissolved solids from liquids.

Practice Questions

- 1 Which method would you use to separate muddy water into clean water and mud?
- 2 Explain how sieving differs from filtration.
- 3 Describe the steps you would take to purify a sample of dirty pond water.