

Elements, Compounds and Mixtures

Chapter 11: Elements, Compounds and Mixtures · Topic 1

Key Concept

Elements are organised in the periodic table, each represented by a unique symbol, like Na for sodium or Cl for chlorine.

Compounds form in fixed ratios, like table salt (NaCl) always having equal parts sodium and chlorine atoms.

Mixtures can be separated using physical methods like filtration, distillation, or chromatography, since components aren't chemically bonded.

Understanding these categories helps us classify substances and predict how they can be separated or combined.

Quick Revision Notes

- Elements are organised in the periodic table.
- Each has a unique symbol, like Na or Cl.
- Compounds form in fixed ratios.
- NaCl always has equal sodium and chlorine.
- Mixtures separate using physical methods.
- Methods: filtration, distillation, chromatography.
- Mixture components aren't chemically bonded.
- This classification predicts separation methods.

Practice Questions

- 1 Find the symbols for five elements.
- 2 Discuss why NaCl is a compound.
- 3 Research distillation and how it separates mixtures.
- 4 Explain chromatography briefly.
- 5 Give an example each of an element, compound and mixture.
- 6 Discuss why compounds have fixed ratios.