

Man-made Materials

Chapter 17: Man-made Materials · Topic 1

Key Concept

Plastics are synthetic materials made from polymers, valued for being lightweight, durable, and mouldable into various shapes.

Synthetic fibres like nylon, polyester, and rayon are man-made alternatives to natural fibres, often more durable and affordable.

Alloys are mixtures of metals (or metal with other elements) created to enhance properties like strength, like steel (iron and carbon).

While man-made materials offer many benefits, their disposal poses environmental challenges, as many don't decompose naturally like plastics.

Quick Revision Notes

- Plastics: synthetic, made from polymers.
- Lightweight, durable, mouldable.
- Synthetic fibres: nylon, polyester, rayon.
- Man-made alternatives to natural fibres.
- Alloys: metal mixtures for enhanced properties.
- Example: steel (iron + carbon).
- Man-made materials offer many benefits.
- Disposal poses environmental challenges (non-decomposing).

Practice Questions

- 1 List three man-made materials and their uses.
- 2 Discuss why plastics are widely used.
- 3 Research an alloy and its properties.
- 4 Discuss the environmental challenge of plastic disposal.
- 5 Compare a natural fibre and a synthetic fibre.
- 6 Explain why alloys have enhanced properties.