

Materials and Their Uses

Chapter 6: Materials Around Us · Topic 3

Key Concept

Engineers and designers must carefully consider multiple properties when selecting materials — for example, a cooking pot needs a material that conducts heat well (like aluminium or steel) but its handle needs a material that does NOT conduct heat well (like plastic or wood), to prevent burns. Similarly, a raincoat is made from waterproof material to keep the wearer dry, while a bandage is made from breathable but absorbent material to allow healing while still absorbing moisture.

Quick Revision Notes

- Rubber is used for tyres due to its flexibility and grip.
- Glass is used for windows due to its transparency.
- Metals are used for cooking utensils due to good heat conductivity.
- Objects often combine materials with different properties for different parts (e.g., a metal pot with a plastic handle).

Practice Questions

- 1 Explain why rubber is a good material for making tyres.
- 2 Why is a cooking pot's body made of metal but its handle made of plastic or wood?
- 3 Suggest a suitable material for making a raincoat and explain why.