

Properties of Materials

Chapter 10: This World of Things · Topic 2

Key Concept

Hardness tells us how firm a material is - a stone is hard, while cotton is soft. Texture tells us if a surface is smooth (like glass) or rough (like sandpaper).

Some materials float on water, like wood and plastic, because they are lighter than water, while others sink, like stone and metal, because they are heavier.

Materials can also be transparent (letting light through, like glass), translucent (letting some light through), or opaque (blocking light completely, like wood).

Testing and observing these properties helps us understand why certain materials are chosen for specific purposes, like using opaque curtains for privacy.

Quick Revision Notes

- Hardness tells us how firm a material is.
- Texture can be smooth or rough.
- Wood and plastic float on water.
- Stone and metal sink in water.
- Transparent materials let light through, like glass.
- Translucent materials let some light through.
- Opaque materials block light completely, like wood.
- Properties help us choose materials for specific purposes.

Practice Questions

- 1 Test if different objects float or sink in water.
- 2 Feel and compare the texture of two materials.
- 3 Find a transparent, translucent and opaque object at home.
- 4 Sort objects by hardness: hard and soft.
- 5 Explain why curtains are usually opaque.
- 6 Test and record the properties of five household objects.