

Y2 Aut1 Science: Materials

Enquiry questions: Do all materials change shape?

Core Knowledge

All objects are made of one or more materials that are chosen specifically because they have suitable properties for the task.

When choosing what to make an object from, the properties needed are compared with the properties of the possible materials, and identified through simple tests and classifying activities.

A material can be suitable for different purposes and an object can be made of different materials.

Objects made of some materials can be changed in shape by bending, stretching, squashing and twisting.

Pattern Seeking

Notice patterns in the properties of material, eg. Are all rubber objects water proof?

Comparative testing

Explore the suitability of different materials for different uses eg, which material would carry water the best? Which material would make the best curtains and which material makes the best fold-up aeroplane?

Vocabulary

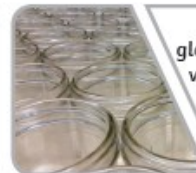
wood, metal, plastic, glass, brick, rock, paper, cardboard; properties of materials ± as for Year 1 plus opaque, transparent and translucent, reflective, push/pushing, pull/puling, twist/twisting, squash/squashing, reflective, flexible, rigid , bend/bending, stretch/stretching

Key Knowledge

Properties of Materials



wood:
hard, stiff,
strong, opaque,
can be carved
into any
shape.



glass:
waterproof,
transparent,
hard, smooth.



plastic:
waterproof,
strong, can
be made to be
flexible or stiff,
smooth or rough.



metal:
strong, hard,
easy to wash.



paper:
lightweight,
flexible.



cardboard:
strong, light,
stiff.



fabric:
soft, flexible,
hard-wearing,
can be stretchy,
warm, absorbent.



rubber:
hard-wearing,
elastic, flexible,
strong.

Concepts

Structure

Function

Cause and effect

Similarity and Difference

Significant individuals:

John McAdam's process was so successful that roads were built in this way right across the world.

