

Key Knowledge





What are materials used for?	Materials are used for different purposes based on their properties : <ul style="list-style-type: none"> • Wood is used to make furniture and floors. • Metal can be used to make coins, cans, cars and cutlery. • Glass can be used to make windows.
What properties of materials make them suitable for a particular use?	<ul style="list-style-type: none"> • Glass is used to make windows because it is transparent. • Rulers can be made from wood or plastic because these materials are smooth and can be cut straight. • Spoons are made from metal, because it is waterproof and can be cleaned easily. They can also be made from plastic for children because plastic is light and won't hurt children's growing teeth.
How can you change the shape of materials?	<p>The shape of some materials can be changed when they are stretched, twisted, bent and squashed.</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  <p>stretch</p> </div> <div style="text-align: center;">  <p>twist</p> </div> </div> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  <p>bend</p> </div> <div style="text-align: center;">  <p>squash</p> </div> </div>

Diagram - Different materials



Investigate

Which materials are waterproof / absorbent?
 Which is the most waterproof material?
 What happens to different materials when you squash, bend, twist or stretch or stretch them?
 Which classroom material is best for making a boat?

Different materials have different properties



Key Vocabulary

absorbent	Soaks up liquid easily.
bendy (flexible)	An object that bends easily into a curved shape.
ceramic	A solid material hardened by heating to a high temperature. E.g., porcelain, glass, brick.
elastic	Stretches when you pull it and returns to its original size and shape when you let it go.
fabric	Cloth or other material produced by weaving together cotton, wool or other threads.
foil	Sheets of metal as thin as paper.
glass	A hard, transparent material.
man-made	Materials that are created by people
metal	Substances such as iron steel, gold, or lead.
opaque	If a substance is opaque , you cannot see through it.
plastic	A material which is light in weight and does not break easily.
properties	The qualities or features that belong to something and make it recognisable.
rough	A surface that is uneven and not smooth.
shiny	Bright and reflects a lot of light.
smooth	No roughness, lumps, or holes.
soft	Not hard. Easily scratched or dented.
squashy	Loses its shape easily when pressed.
stretchy	Becomes longer or wider when you pull it.
transparent	If a substance is transparent , you can see through it.
twist	Move in a turning direction; turn to make a spiral shape.
waterproof	Does not let water pass through it.