

What will I know by the end of the unit?

What are materials used for?

- Materials are used for different purposes based on their properties. For example
 - Wood is used to make furniture and floors.
 - Metal is used to make coins, cans cutlery and coins.
 - Glass can be used to make windows.
- Names of materials include: glass, metal, rock, plastic, wood, water, brick, paper, fabric, elastic, foil.

What properties of materials make them suitable for a particular use?

- Glass can be used to make windows because it is transparent.
- Rulers can be made of wood, plastic or rubber because these materials are smooth and can be cut straight.
- Spoons are made of metal, because it is waterproof and can be cleaned easily. They can also be made from plastic for children because plastic is light and it cannot hurt children's growing teeth.
- Different types of properties include: transparent, waterproof, opaque, stiff, soft, shiny, rough, absorbent, bright, bendy, stretchy, hard, smooth, dull.

How can you change the shape of materials?

- The shape of some materials can be changed when they are stretched, twisted, bent and squashed.

How to compare and group materials using more complex diagrams

- Use an overlapping Venn diagram to compare and group objects made from natural and man-made materials. Give reasons why some objects are in the overlapping section.

Uses of Everyday Materials

Year 2

Key Vocabulary

materials	Materials are what objects are made from.
suitability	Suitability means having the properties which are right for a specific purpose.
properties	This is what a material is like and how it behaves (soft, stretchy, waterproof).

Squash an object by pushing both hands together.



Bend an object by grabbing both ends of the object and bringing the ends inwards together.



Twist an object by turning your hands in opposite directions.



Stretch an object by pulling your hands slowly and gently apart.

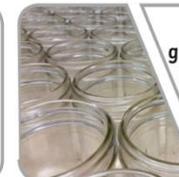


Key Knowledge

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.

What should I already know?

- Object are things that you can touch or see.
- Objects are made from materials.
- The names of some materials that objects are made from (eg glass, wood, plastic).
- Some words that describe materials (eg shiny, soft, rough, absorbent).
- How to group and compare a variety of everyday materials based on their simple properties (inc natural and man-made).

Vocabulary

<p>absorbent material that soaks up liquid easily</p> <p>bendy an object that bends easily into a curved shape.</p> <p>brick rectangular blocks of baked clay used for building walls, which are usually red or brown.</p> <p>dull a colour or light that is not bright or a material that is not shiny.</p> <p>elastic a rubber material that stretches when you pull it and returns to its original size and shape when you let it go</p> <p>fabrics cloth or other material produced by weaving together cotton, wool or other threads.</p> <p>foil sheets of metal as thin as paper.</p> <p>glass a hard transparent material.</p> <p>man-made things that are created by people.</p> <p>metal a hard substance such as iron, steel, gold or lead.</p> <p>natural things that exist in nature and are not made by people.</p> <p>opaque if an object or substance is opaque you cannot see through it</p> <p>plastic a material which is light in weight and does not break easily.</p> <p>process a series of actions used to produce something or reach a goal.</p> <p>properties the qualities or features that belong to something and make it recognizable.</p> <p>purpose the reason for which it is made or don</p>	<p>recyclable waste and materials which can be processed and used again.</p> <p>rock the hard substance which the Earth is made from.</p> <p>rough uneven and not smooth.</p> <p>shiny things that are bright and reflect light.</p> <p>smooth no roughness, lumps or holes.</p> <p>soft not rough or hard</p> <p>squash pressed or crushed with such force that something loses its shape.</p> <p>stiff firm or does not bend easily.</p> <p>stretchy slightly elastic.</p> <p>suitable something that is suitable for a purpose or occasion is right or acceptable for it.</p> <p>translucent if an object or substance is translucent it allows light but not detailed shapes to pass through it.</p> <p>transparent if an object or substance is transparent it allows light to pass through it and you can see detailed shapes through it.</p> <p>twist turn something to make a spiral shape.</p> <p>unsuitable someone or something that is unsuitable for a particular purpose or situation does not have the right properties for it.</p> <p>waterproof does not let water pass through it.</p> <p>wood the material which forms that trunks and branches of trees.</p>
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Crowland Primary School – Science

Topic: Uses of Everyday Materials

Year 2

Question 1: Which of these materials can absorb water?	Start of Unit	End of Unit	Question 2 : Which of these materials is waterproof?	Start of Unit	End of Unit
Plastic			Wax		
Brick			Wool		
Fabric			Paper		
Metal			Plastic		
Don't know			Don't know		
Question 3: True, False or Don't know? (T / F / D)	Start of Unit	End of Unit	Question 4 : These objects change shape after they have been squashed. Yes, No, Don't know (Y / N / D)	Start of Unit	End of Unit
Watercolour paint will cover wax crayon			Plasticine		
Some materials change shape when they are heated			Sponge		
Particles are tiny parts of all objects			Spring		
Once chocolate is heated it stays liquid			Dough		