

Topic: Uses of everyday materials

Year: 2

Strand: Chemistry

What should I already know?

- Objects are things that you can touch or see.
- Objects are made from materials.
- Some materials that objects are made from (e.g. glass, wood, plastic)
- Some words to describe materials (e.g. shiny, soft, rough absorbent)
- Materials which are natural and which are man-made.

Vocabulary

absorbent	material that soaks up liquid easily
bendy	an object that bends easily into a curved shape
brick	rectangular blocks of baked clay used for building walls, which are usually red or brown
dull	a colour or light that is not bright
elastic	a rubber material that stretches when you pull it and returns to its original size and shape when you let it go
fabrics	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	things are created by people
metal	a hard substance such as iron, steel, gold, or lead
natural	things that exist in nature and are not made by people
opaque	if an object or substance is opaque, you cannot see through it
plastic	a material which is light in weight and does not break easily
process	a series of actions used to produce something or reach a goal.
properties	the qualities or features that belong to something and make it recognisable
purpose	the reason for which it is made or done
recyclable	waste or materials which can be processed and used again
rock	the hard substance which the Earth is made of
rough	uneven and not smooth
shiny	things are bright and reflect light
smooth	no roughness, lumps, or holes
soft	not rough or hard
squash	pressed or crushed with such force that something loses its shape
stiff	does not bend easily
stretchy	slightly elastic
suitable	something that is suitable for a particular purpose or occasion is right or acceptable for it

Vocabulary (continued)

transparent	If an object is transparent, you can see through it
twist	turn something to make a spiral shape
unsuitable	Someone or something that is unsuitable for a particular purpose or situation does not have the right properties for it
waterproof	does not let water pass through it
wood	the material which forms the trunks and branches of trees

What will I know by the end of the unit?

<p>What are materials used for?</p>	<ul style="list-style-type: none"> ● Materials are used for different purposes based on their properties. ● For example, 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. <div style="text-align: center;"> </div>
<p>Which plants do we eat?</p>	<ul style="list-style-type: none"> ● Glass can be used to make windows because it is transparent. ● Rulers can be made from wood, plastic or rubber 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 it cannot hurt children's growing teeth. <div style="text-align: center;"> </div>
<p>What are the parts of common trees and plants?</p>	<ul style="list-style-type: none"> ● The shape of some materials can be changed when they are stretched, twisted, bent and squashed. <div style="text-align: center;"> </div>

Investigate!

- Sort through pictures to show which things are living, which are dead and things which have never been alive.
- Go on a plant/tree hunt. What do you notice about what they look like? What are their features?
- Plant a bulb or a seed and watch it grow. Record your observations in a diary. Compare the growth of that plant with a plant (using the same bulb or seed) where one of the conditions is different (no water, no light, a smaller container).
- Plant a seed on a wet cotton bud. Does it grow? Why might it grow for a little while and then stop?
- Dissect a variety of fruits and locate where their seeds are.
- Eat a variety of vegetables and identify which part of the plant they come from (note: do not taste nuts in school as they are allergens).
- Create a bar chart to show how tall your plants are to the nearest cm.

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Question 1: The most suitable material to make windows is:	Start of unit:	End of unit:
wood		
metal		
glass		
rock		
Question 2: The reason for this is because:	Start of unit:	End of unit:

Question 3: Why do some children drink out of plastic cups rather than glass ones?	Start of unit:	End of unit:

Question 4: Stretching and twisting an object will:	Start of unit:	End of unit:
change the shape of the object		
keep the object the same		

Question 5: Match these properties of materials to the uses they are most suitable for:	Start of unit:	End of unit:
<div style="display: flex; justify-content: space-around; align-items: flex-start;"> <div style="border: 1px solid black; padding: 5px; margin-bottom: 20px;">a raincoat</div> <div style="border: 1px solid black; padding: 5px; margin-bottom: 20px;">soft</div> </div> <div style="display: flex; justify-content: space-around; align-items: flex-start;"> <div style="border: 1px solid black; padding: 5px; margin-bottom: 20px;">a pillow</div> <div style="border: 1px solid black; padding: 5px; margin-bottom: 20px;">absorbent</div> </div> <div style="display: flex; justify-content: space-around; align-items: flex-start;"> <div style="border: 1px solid black; padding: 5px; margin-bottom: 20px;">a sponge</div> <div style="border: 1px solid black; padding: 5px; margin-bottom: 20px;">waterproof</div> </div> <div style="display: flex; justify-content: space-around; align-items: flex-start;"> <div style="border: 1px solid black; padding: 5px;">a table</div> <div style="border: 1px solid black; padding: 5px;">stiff</div> </div>		