



Year 2 Science

Autumn 1 Week 3 -

Uses of Everyday Materials

Lesson 2 of 6

Week Beginning: 15/9/25

[Master Planning File Link](#)



Objectives:

Lesson 2

- To know that materials are chosen for the task they will be used for.



Year 2 Science Knowledge Organiser

Uses of Everyday Materials - Autumn Term

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.

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).

We will be learning about the work of John Dunlop – you can watch a video about him here.



John Dunlop

originally used rubber to make tyres for his son's tricycle.



hard

not easily broken or pierced



A hard diamond.

smooth

an even and regular surface



Some smooth pebbles.

rigid

unable to be bent or forced out of shape



Stone is rigid.

squashy

easily crushed or squeezed



The play dough is squashy.

transparent

can be seen through



This glass is transparent.

absorbent

able to soak up liquid



The sponge is absorbent.

opaque

cannot be seen through



She is hidden by the opaque screen.

flexible

able to bend



A flexible spring.

bumpy

uneven, raised patches



This shell is bumpy.

rough

uneven, irregular surface



The log has rough bark.

dull

lacking shine or brightness



The moth's wings are dull.

translucent

allowing some light to pass through



The screen is translucent.

elastic

springs back once stretched



An elastic band.

brittle

hard, but may break easily



The glass is brittle.

shiny

reflects light, smooth surface



A shiny silver spoon.

soft

not firm to the touch



The kitten has soft fur.

conductor

lets heat, electricity or sound to pass through it



Some metals are conductors of electricity.

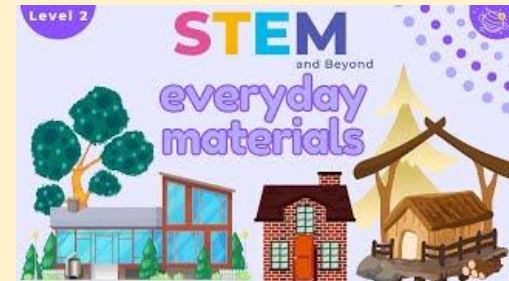
waterproof

repels water and liquids



A waterproof coat.

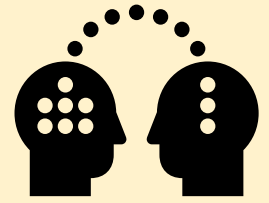
You need to learn the meaning of these words!
Watch this video to help you!



Interactive Links On Plastic Pollution [Click Here](#)



Recall/ Quiz: Last year

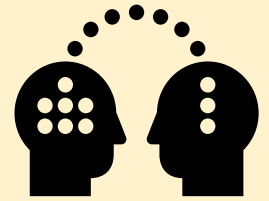


Name the 4 seasons of the year in order to match the tree.

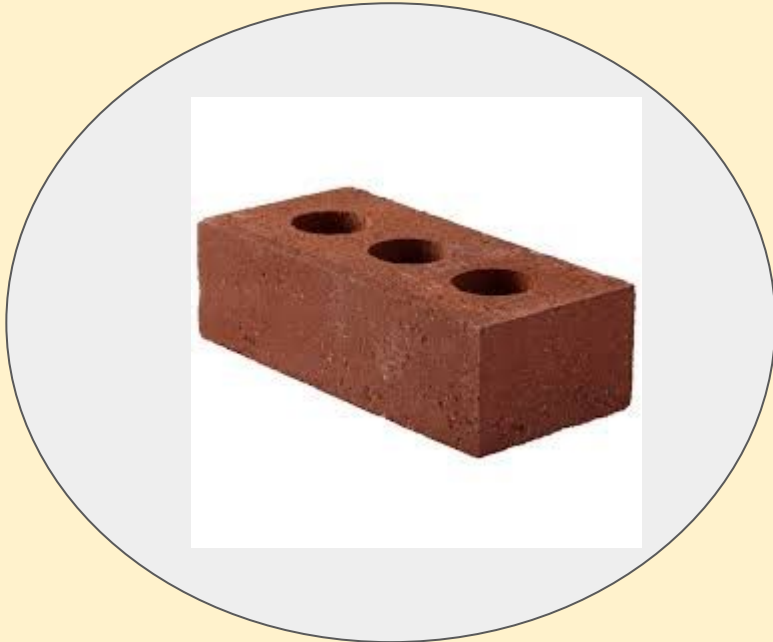
Name the months in Summer.




















Recall/ Quiz: Last lesson

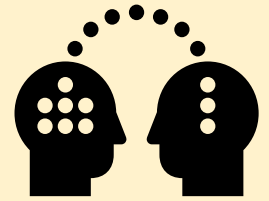


Say all the properties that are relevance to the material.





















squashy easily crushed or squeezed <i>The play dough is squashy.</i> 	transparent can be seen through <i>This glass is transparent.</i> 	
bumpy uneven, raised patches <i>This shell is bumpy.</i> 	rough uneven, irregular surface <i>The log has rough bark.</i> 	
brittle hard, but may break easily 	shiny reflects light, smooth surface <i>A shiny silver spoon.</i> 	
hard not easily broken or pierced <i>A hard diamond.</i> 	smooth an even and regular surface <i>Some smooth pebbles.</i> 	rigid unable to be bent or forced out of shape <i>Steel is rigid.</i> 
absorbent able to soak up liquid <i>The sponge is absorbent.</i> 	opaque cannot be seen through <i>She is hidden by the opaque screen.</i> 	flexible able to bend <i>A flexible spring.</i> 
dull lacking shine or brightness <i>The metal spoons are dull.</i> 	translucent allowing some light to pass through <i>The screen is translucent.</i> 	elastic springs back once stretched <i>An elastic band.</i> 
soft not firm to the touch <i>The kitten has soft fur.</i> 	conductor lets heat, electricity or sound to pass through it. <i>Some metals are conductors of electricity.</i> 	waterproof repels water and liquids <i>A waterproof coat.</i> 

Recall/ Quiz:

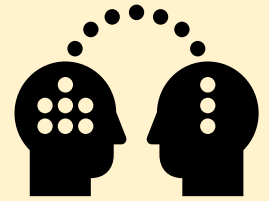


Say all the properties that are relevance to the material.





















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dull lacking shine or brightness  The rest's sponge are dull.	translucent allowing some light to pass through  The screen is translucent.	elastic springs back once stretched  An elastic band.
soft not firm to the touch  The kitten has soft fur.	conductor lets heat, electricity or sound to pass through it. Some metals are conductors of electricity. 	waterproof repels water and liquids  A waterproof coat.

Recall/ Quiz:



Say all the properties that are relevance to the material.



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Level 2

STEM

and Beyond

everyday
materials





Think, Pair, Share



Why is plastic used for bags?



Strong

Waterproof

Flexible





Think, Pair, Share



Why is metal used for pans?



Strong
Conductor of heat
Waterproof
Rigid









Now complete task 1

Autumn 1 – 'Use of Everyday Materials'

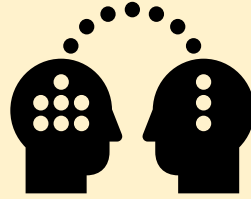
L2 – w/b 15/9/25

Task 1: Recall Quiz – last lesson

Choose the correct property to match the material – circle the right word.


					
waterproof absorbent	opaque transparent	shiny dull	hard brittle	smooth rough	rigid flexible

Now we are going to match materials because of their properties



hard


not easily broken or pierced



A hard diamond.

smooth


an even and regular surface



Some smooth pebbles.

rigid

unable to be bent or forced out of shape



Stone is rigid.

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A flexible spring.

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Some metals are conductors of electricity.

waterproof

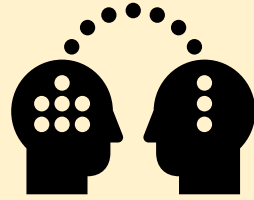
repels water and liquids



A waterproof coat.









Remember to use this scientific vocabulary!

Task 2



Task 2 – Practical matching materials used to the properties for use in everyday objects. Stick the picture to match the properties.

strong, hard, shiny	
transparent, rigid	
soft, absorbent	
magnetic, rigid	

 strong	 shiny	 rigid	 magnetic
 hard	 transparent	 soft	 absorbent



Let's look at a variety of objects that have the same property

Materials and Their Properties

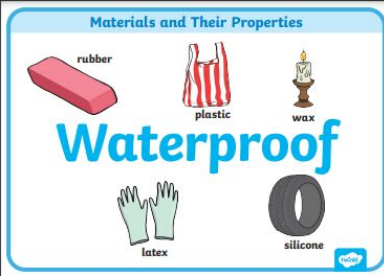


Flexible

leaves, rubber, leather, plastic, fabric, metal, paper

This card features the word 'Flexible' in large orange letters. It includes illustrations of leaves, a rubber band, a leather belt, a plastic bag, a fabric t-shirt, a metal hanger, and a piece of paper.

Materials and Their Properties



Waterproof

rubber, plastic, wax, latex, silicone

This card features the word 'Waterproof' in large blue letters. It includes illustrations of a rubber block, a plastic bag, a wax candle, a pair of latex gloves, and a silicone tire.

Materials and Their Properties

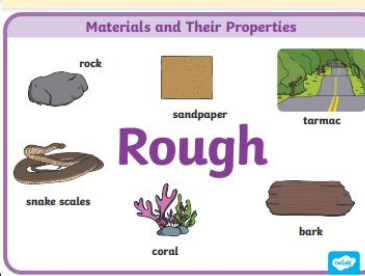


Soft

rubber, cotton, leather, wool, fabric

This card features the word 'Soft' in large blue letters. It includes illustrations of a rubber block, cotton balls, a leather belt, a ball of wool, and a fabric t-shirt.

Materials and Their Properties

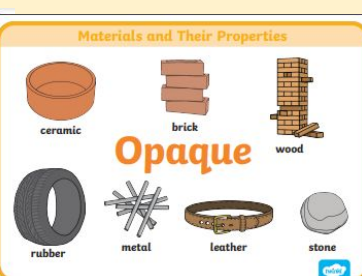


Rough

rock, sandpaper, tarmac, snake scales, coral, bark

This card features the word 'Rough' in large purple letters. It includes illustrations of a rock, a piece of sandpaper, a tarmac road, snake scales, coral, and a piece of bark.

Materials and Their Properties

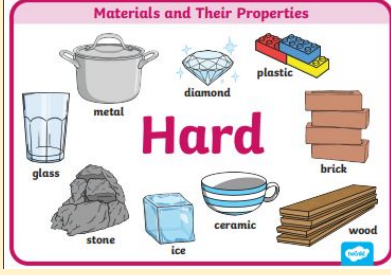


Opaque

ceramic, brick, wood, rubber, metal, leather, stone

This card features the word 'Opaque' in large orange letters. It includes illustrations of a ceramic bowl, bricks, wood planks, a rubber tire, metal rods, a leather belt, and a stone.

Materials and Their Properties

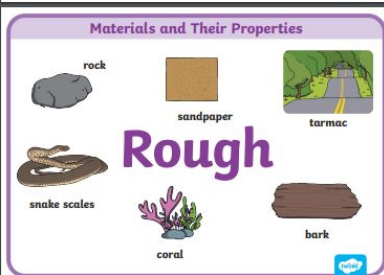


Hard

metal, diamond, plastic, glass, stone, ice, ceramic, wood, brick

This card features the word 'Hard' in large pink letters. It includes illustrations of a metal pot, a diamond, a plastic block, a glass, a stone, ice, a ceramic cup, wood planks, and a brick.

Materials and Their Properties



Rough

rock, sandpaper, tarmac, snake scales, coral, bark

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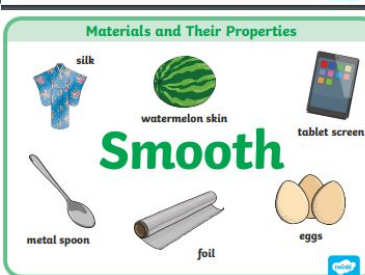


Transparent

diamond, glass, water, plastic

This card features the word 'Transparent' in large teal letters. It includes illustrations of a diamond, a glass, a water drop, and a plastic cup.

Materials and Their Properties



Smooth

silk, watermelon skin, tablet screen, metal spoon, foil, eggs

This card features the word 'Smooth' in large green letters. It includes illustrations of a silk scarf, watermelon skin, a tablet screen, a metal spoon, a piece of foil, and eggs.

Have a range of materials out on tables. Give a property and a children go in pair to find a matching object.

hard

not easily broken or pierced



A hard diamond.

smooth

an even and regular surface



Some smooth pebbles.

rigid

unable to be bent or forced out of shape



Stone is rigid.

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The play dough is squashy.

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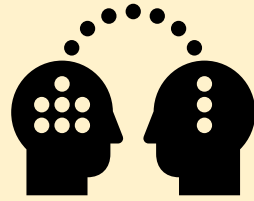
Remember to use this scientific vocabulary!

Task 3

Task 3

Look around the classroom and draw / write an object next to these properties. Can you find something for each one? The first one has been done for you. You can add more items if you have time!

hard	table 
soft	
strong	
absorbent	
flexible	
rigid	
non-magnetic	
magnetic	
shiny	
dull	



Feedback / Misconceptions

What is wrong with this?

A chocolate teapot, a paper teapot?



Summary Slide

- To know that materials are chosen for the task they will be used for.
- The correct vocabulary to describe property.
- Knowing the difference between the property / object / material.

Object = Chair

Property = Strong, smooth

Material = Plastic

