

Subject	Term	Unit
Science- Year 1	Autumn 1	Everyday Materials

Intent

Interweaving knowledge and enquiry to discover the world around us.



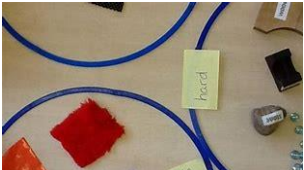
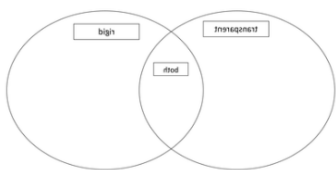
Prior knowledge	National Curriculum
<ul style="list-style-type: none"> Children know about similarities and differences in relation to places, objects, materials and living things. They talk about the features of their own immediate environment and how environments might vary from one another. They make observations of animals and plants and explain why some things occur, and talk about changes. 	<ul style="list-style-type: none"> Distinguish between an object and the material from which it is made Identify and name a variety of everyday materials, including wood, plastic, glass, metal, water, and rock Describe the simple physical properties of a variety of everyday materials Compare and group together a variety of everyday materials on the basis of their simple physical properties.

What?	Understand what objects are made from and to describe material properties.
Why?	The children need to know the difference between materials and objects. They need a knowledge of material properties to understand a change in state and to help with DT and art lessons.
How?	Through observation and comparison. By looking at a wide variety of materials. Using oracy to discuss the properties of different materials.

Vocabulary	
absorbent	Material that soaks up liquid easily.
bendy	An object that bends easily into a curved shape.
dull	A colour or light that is not bright.
elastic	A rubber material that stretches when you pull it and returns to its original state when you let go,
Man-made	Things that are created by people.
metal	Hard substance such as iron, steel, gold or lead.
natural	Things that exist nature that are not man made.
opaque	An object that you cannot see through.

plastic	Material that is light in weight and doesn't break easily.
rough	Uneven and not smooth.
shiny	Things that are bright and reflect light.
smooth	No roughness, lumps or holes.
soft	Not rough or hard.
stiff	Firm or does not bend easily.
stretchy	Slightly elastic.
transparent	An object you can see through.
waterproof	doesn't let water pass through it.

Learning	
Objective	Learning
Can I identify different materials?	<p>Pattern seeking</p> <p>Glass, metal, rock, plastic, wood, water, brick, paper, fabrics, elastic, foil. Have a selection of objects for the children to look at and to sort into different groups. Go around school on a walk and find different materials. Create a board with materials and the names of the material. Be really explicit with difference between objects and materials.</p>
Can I describe the features of materials?	<p>Pattern seeking</p> <p>Glass, metal, rock, plastic, wood, water, brick, paper, fabrics, elastic, foil</p> <p>Transparent, waterproof, opaque, stiff, soft, shiny, rough, absorbent, bright, bendy, stretchy, hard, smooth, dull.</p> <p>Look at examples of what the words mean. Ask the children to show these things with their bodies and pictures- e.g. stretch up tall, now find an object that is stretchy.</p>
Can I identify which materials stretch the most when mass is added to them?	<p>Comparative testing</p> <p>Elastic, bendy, stretchy, stiff,</p> <p>Plastic, wool, elastic, cotton, rubber</p> <p>Carry out a comparative test. Use the fair test boards to introduce the words change and measure. Have a bag and a number of weights. Use the materials to hold the bag and add the weights. Which material was the most stretchy? Record as a simple statement for the results.</p>
Can I identify which materials are the most absorbent?	<p>Comparative testing</p> <p>Use a range of materials</p> <p>Toilet roll, cotton wool, sponge, newspaper, towel,</p> <p>Have a range of different materials. Use the fair test boards to reintroduce the words change and measure. We will change the</p>

	<p>material and we will observe how much water is absorbed. Create a simple class table with pictures before and after.</p> <table border="1" data-bbox="470 190 1484 235"> <tr> <td>Material before</td><td>Material after</td></tr> </table> <p>Use pipettes to drop water on to the materials. Discuss which material absorbed the most water? Record as a simple statement for the results.</p>	Material before	Material after
Material before	Material after		
<p>Which materials are waterproof? <i>We need to choose a material to make an umbrella.</i></p>	<p>Identifying, classifying</p> <p>Tissue, plastic bag, kitchen roll, cardboard, fabric.</p> <p>Have a range of different materials. Discuss what a good umbrella needs to do. Look at different umbrellas. Use the pipettes and the different materials to see which material holds the most water. Record as a simple statement for the results.</p>		
<p>Can I classify materials?</p>	<p>Identifying and Classifying</p> <ul style="list-style-type: none"> • Natural Materials Chalk, sand, oil, leather, iron, gold, cotton, coal, wood, • Man-made materials Concrete, glass, paper, rubber, steel, plastic, polyester <p>How do the materials you have been given fit into these categories?</p> <ul style="list-style-type: none"> • Hard/soft Stretchy/stiff Shiny/dull Rough/smooth Waterproof/non-waterproof <p>Children use sorting hoops and criteria to sort materials in as many different ways as they can using the learning that has taken place. Children could draw, cut and stick, take photos to record what they have found out.</p> <div data-bbox="470 1243 774 1413">  </div> <div data-bbox="821 1243 1157 1413">  </div>		

Websites

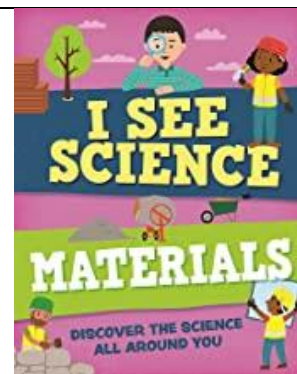
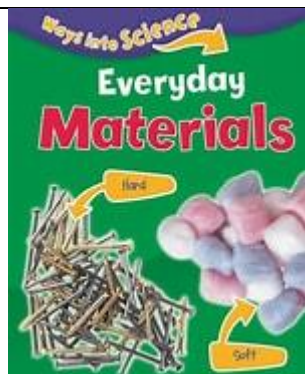
[Everyday materials - KS1 Science - BBC Bitesize](#)

[Properties of Materials - Science Games & Activities for Kids \(sciencekids.co.nz\)](#) Is it waterproof?

[All subjects - Year 1 - Oak National Academy \(thenational.academy\)](#)

[Everyday Materials Year 1 - KS1 | Outstanding Science](#)

Recommended Reads



Golden Thread

Materials