

Uses of Everyday Materials (2UEM) Materials Matter [6 sessions]	Content Uses of everyday materials (2UEM) i) identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses ii) find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching	
By the end of this block you will have achieved the following National Curriculum Science outcomes	Working Scientifically (KS1 WS) i) asking simple questions and recognising that they can be answered in different ways ii) observing closely, using simple equipment iii) performing simple tests iv) identifying and classifying v) using their observations and ideas to suggest answers to questions vi) gathering and recording data to help in answering questions	
Other curriculum areas covered	Art and Design <ul style="list-style-type: none"> • To use a range of materials creatively to design and make products • To use drawing, painting and sculpture to develop and share their ideas, experiences and imagination • To develop a wide range of art and design techniques in using colour, pattern, texture, line, shape, form and space 	
Session 1 Mopping up Explore the properties of different kitchen papers and disposable cloths. Rise to the challenge of mopping water from the floor. Which paper is the most absorbent? Which will be the best for mopping up the spillage?	Children will <ul style="list-style-type: none"> • Create hypotheses and make predictions about the absorbency of different kitchen paper and disposable cloths • Investigate which papers are the most absorbent by choosing a method and working in a group 	
Session 2 Are bricks absorbent? Think about hard materials and their absorbent properties. Which building materials are absorbent? Why must they have this property? Test different hard materials and record the results.	Children will <ul style="list-style-type: none"> • Explore what buildings are made of and generate questions about the absorbency of building materials • Consider and investigate the hypothesis "Hard materials cannot absorb water" and make predictions about different materials before testing them • Make decisions about how to record the results of the investigation in a clear way for others to follow 	
Session 3 Waterproofing materials Explore different fabrics and investigate how waterproof they are using a dropper of water. How can we make the fabrics waterproof? Colour them in with wax crayon and repeat the investigation!	Children will <ul style="list-style-type: none"> • Understand that, if a material does not absorb water, it is said to be waterproof • Investigate the absorbency of fabrics and the effect of adding a layer of wax crayon • Discuss the findings and consider the reasons for fabrics being waterproof 	
Session 4 Printing Explore the textures and properties of different materials by printing with a selection of items. Make a large collective piece of art showing the variety of materials used by the class.	Children will <ul style="list-style-type: none"> • Understand the difference between natural and manmade objects and sort into groups • Describe the textures and appearance of the different items • Explore the texture and various properties (absorbency, flexibility) by using them to print with paint 	

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<p>Session 5</p> <p>Resist the wax!</p> <p>Learn more about the waterproof properties of wax by having a go at a wax resist picture!</p>	<p>Children will</p> <ul style="list-style-type: none"> • Explore wax resist painting using oil pastels, wax crayons and paint • Understand the role of wax and its waterproof properties in wax resist art.
<p>Session 6</p> <p>Melting and moulding</p> <p>Talk about how some materials change shape when they are heated up. Chop up old wax crayons, heat them up and turn them into different shapes!</p>	<p>Children will</p> <ul style="list-style-type: none"> • Understand what happens when a material is heated up and why it changes shape • Discuss the importance of recycling materials • Understand and experience recycling by re-moulding wax crayons in new and different shapes

Resources

Session 1

Provided: 'Some Ways of Testing Absorbency' sheet

You will need: Different sorts of paper towels and disposable cloths (kitchen paper, different brands of paper towels, school paper towels, squares of paper etc), pipettes or syringes, beakers of water, tape, timers

Session 2

Provided: Hypothesis Thinking Sheet

You will need: A variety of hard materials (different types of wood, including balsa wood, brick, plastics, plaster, clay, metals), shallow bowls of water, timer

Session 3

Provided: Investigating fabrics resource

You will need: Sticky notes, pencil, a selection of fabrics, pipettes, beakers of water, wax crayons

Session 4

Provided: Vocabulary Bingo resource

You will need: Collection of manmade and natural objects, sticky notes, pencils, poster paint, large sheets of paper

Session 5

Provided: Examples of wax resist art

You will need: Watercolour paint or thinned poster paint, paint brushes, pieces of card, wax crayons, oil pastels, or a stick of fabric wax, squares of fabric, Vaseline™

Session 6

Provided: Particles Role Play and Melting and Remoulding Wax Crayons resource

You will need: Old wax crayons, plain paper and paper for writing on, silicone moulds, old mugs or jugs, scissors, knife, microwave

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