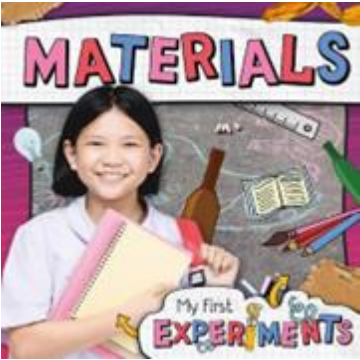
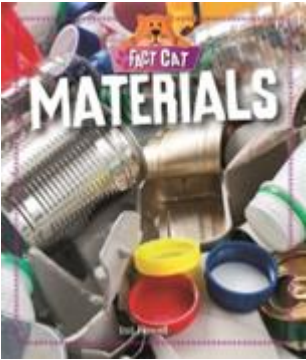
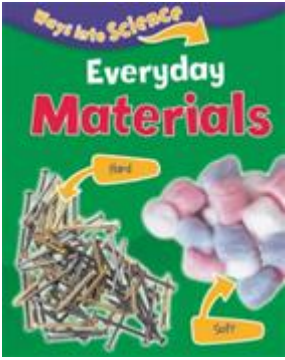

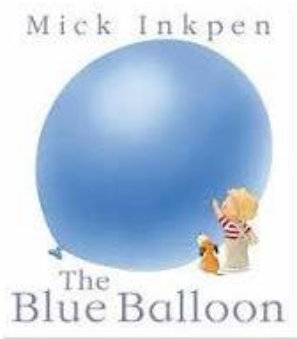


BILSTON CHURCH OF ENGLAND PRIMARY



MEDIUM TERM PLANNING

Subject	Topic/Key Question	Year Group	Term	Time Allocation
Science	Materials – Good Choices	2	Autumn 1	12 hours
 <p data-bbox="195 891 384 922">Library service</p>	 <p data-bbox="583 891 772 922">Library service</p>	 <p data-bbox="974 902 1163 933">Library service</p>	 <p data-bbox="1352 902 1541 933">Library service</p>	 <p data-bbox="1724 883 1913 914">Library service</p>
<p data-bbox="111 980 447 1076">End of Key Stage 1 Outcomes</p>	<p data-bbox="495 980 1927 1076">Asking simple questions and recognising that they can be answered in different ways.</p> <p data-bbox="495 1081 1276 1125">Observing closely, using simple equipment.</p> <p data-bbox="495 1130 940 1174">Performing simple tests.</p> <p data-bbox="495 1179 972 1222">Identifying and classifying</p> <p data-bbox="495 1227 1749 1271">Using their observations and ideas to suggest answers to questions. ☐</p> <p data-bbox="495 1276 1602 1320">Gathering and recording data to help in answering questions.</p>			

End of Unit Outcomes	<p>I can identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses.</p> <p>I can find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching.</p>
Vocabulary	wood, metal, metal, plastic, glass, brick, paper, cardboard, squashing, bending, squeezing, bending, twisting, stretching, rubber, waterproof.

Lesson Sequence	Time Allocation	Key Question WALT	Teaching Activities (Possible Computing Activities)	Resources
Lesson 1	2 hours	<p>WALT: identify the uses of everyday materials.</p> <p>WILF: I can compare two objects. I can identify the material</p>	<p>Working Scientifically: Observing using simple equipment.</p> <p>Show children the materials under a microscope can you match it to one of the materials on the table.</p> <p>Which one is It and what is it used for?</p> <p>Remind children of some everyday materials using the photos on the Lesson Presentation and actual materials. (Ensure children are suitably supervised when handling potentially more dangerous materials e.g. glass, brick, metal, wood and rock.)</p> <p>Explain some materials are natural and are found in the world around us, such as wood and rock and others are man-made such as plastic and glass. Look at some of the photos again, this time allowing children to discuss what some of the materials may be used for.</p> <p>Encourage children to look and/or move around the classroom to identify where different materials have been used to make familiar objects.</p>	<p>Denim/Fabric</p> <p>Wood</p> <p>Metal</p> <p>Twinkl lesson</p> <p>Digital Microscopes</p>

		<p>an object is made from and think of other objects that are made from that material. I can record my observations in a suitable way. I use technology to collect information, including a microscope.</p>	<p>Are children able to spot where everyday materials have been used to make familiar objects? Children look at the Uses of Everyday Materials Photo Cards to help identify uses of everyday materials.</p>	
Lesson 2	2 hours	<p>WALT: compare and</p>	<p>Working Scientifically: Identifying and classifying.</p> <p>Show children the feely bag and explain that they are going to play a guessing game. Demonstrate how to play by putting your hand in and carefully describing</p>	<p>Collins lesson 1 Feely bag, groups of</p>

Can you describe the object?		<p>describe objects.</p> <p>WILF: I can compare two objects. I can identify the material an object is made from and think of other objects that are made from that material. I can record my observations in a suitable way.</p>	<p>the object in the bag, for example, for a metal fork, you could say, "It feels cold when I touch it. It is very smooth. It is long and flat. It has three points at one end." If children do not guess the object, show it to them and ask them to think of other things that you could have said to describe it.</p> <p>Ensure that children remember that you could only describe what you could feel, not what you can see, for example, it can be described as hard but not shiny. Compare objects made from the same material and identify the odd one out, encourage the children to give reasons for their answers.</p> <p>Complete sheet comparison sheet Collins</p>	objects made of the same material metal – spoon, paper clip, scissors, tin, spring, necklace; plastic –
Lesson 3	2 hours	WALT: identify	Working Scientifically: Gather information and record data.	Twinkl out and about

<p>What material is it made of?</p>		<p>the use of everyday materials. WILF: I can identify objects made of particular materials. I can describe the properties of a material. I can suggest reasons to explain why the material was chosen to make that object.</p>	<p>Today we are going to begin our science lesson by looking around school. We are going to identify objects and categorise them under these headings. Glass/wood/metal/plastic/brick/paper/cardboard Come back to the classroom and tell children we are going to think about why these materials are suitable for that purpose? EG: Wooden Gate. Glass window. In this lesson children look at objects made from different materials. By the end of this lesson they are able to give examples of objects made from a range of different materials and they have begun to think about why these materials were chosen. This lesson builds on work completed in Year 1, Module 4, Everyday Materials. Provide them with a range of pictorial objects they must classify what they are made from and write why they are suitable.</p>	<p>lesson sheets. Collins connect lesson 2</p>
<p>Lesson 4</p>	<p>2 hours</p>	<p>WALT: compare the suitability</p>	<p>Working Scientifically: Identifying and classifying</p>	<p>Sheet from Twinkl lesson 3</p>

		of materials	<p>Look at the poem from Collins Connect lesson 4. (wooly Saucepan). Discuss the poem and why the materials are not suitable. Explain to the children they are going to scientists today. Show them a vase, pillowcase, toddler cup and a wooden cage/bird box. Look at and read statements that have been prepared. What object would you match them to and why?</p> <p>Complete sheet from twinkl lesson 3.</p>	vase, pillowcase, toddler cup and a wooden cage/bird box.								
Lesson 5	2 hours	WALT: investigate properties of materials by testing	<p>Working Scientifically: Testing, predicting and Evaluating.</p> <p>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?</p> <p>Provide children with resources identified in the left hand column. Model how to carry out the test and how to log answers.</p> <p>https://hamiltontrust-live-b211b12a2ca14cbb94d6-36f68d2.divio-media.net/documents/KS1_Science_Yr_2_Spring_1_Materials_Matter_Session_1_Resource.pdf</p> <div style="text-align: center;"> <p>MY TEST RESULTS:</p> <p><small>Make comments based on how well each material absorbed water.</small></p> <table border="1"> <thead> <tr> <th>Material</th> <th>Comment</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> </tbody> </table> </div> <p>Different sorts of paper towels and disposable cloths (kitchen paper, different brands of paper towels, school paper towels, squares of paper, etc)</p> <p>Pipettes or syringes, Beakers of water, timers.</p>	Material	Comment							Hamilton Trust Science Lesson).
Material	Comment											

			Write a simple prediction and then a conclusion.	
Lesson 6 What shall we use to make a teabag ?	2 hours	<p>WALT: investigate properties of materials by testing</p> <p>WILF: I can suggest how to test the different materials. I can carry out the test and record my results. I can sort which materials are good choices for teabags from those that</p>	<p>Working Scientifically: Testing, predicting and Evaluating.</p> <p>In this lesson children carry out a comparative test to find out which types of materials are appropriate or not appropriate to make a teabag. By the end of this lesson children are able to talk about what they have seen and sort the materials into those that would be suitable and those that would not be suitable, giving reasons based on their observations.</p> <p>Set the scene: Explain to children that one teacher has invented a clever way to make the teabag but has not had time to test different materials to find out which materials are good choices to use. Show children how to put some tea leaves into the centre of a piece of material, pull all the edges together, wrap a rubber band around to hold the edges in place and use a peg to dunk it in the water. Explain that they should test each material and decide whether it is a good choice for a teabag or not. Explain to them that they should stick the sample of material on the correct half of the results paper.</p>	<p>Collins lesson 6</p> <p>Cold water</p> <p>Variety of paper</p>

		are not, giving reasons.		
Lesson 7 What can you invent?	2 hours	<p>WALT: invent creative and unusual uses for everyday materials</p> <p>WILF: I can describe what an inventor does. • I can think of new uses for an everyday object. I can explain how the properties of an object, its material</p>	<p>Working Scientifically: Ask and answer questions.</p> <p>In this lesson children find out about how inventors use materials in new ways to make something new and useful. By the end of the lesson they have thought of unusual and creative uses for simple objects made from everyday materials, and promoted and evaluated their inventions</p> <p>Show the photograph of John Dunlop (Slideshow 1), and tell the story of his invention: Dunlop was a vet who lived over 100 years ago. He had a young son who had a tricycle with metal wheels.</p> <p>Ask: What do you think it would be like to ride a tricycle or bicycle with wheels made of metal? How would it move across bumpy ground? How comfortable would it be?</p> <p>Dunlop wondered what would happen if he fixed a piece of rubber to the wheel and blew air into it.</p> <p>Ask: What do you think? What was John's invention?</p> <p>He took a wheel with his new rubber tyre and a metal wheel and rolled both of the wheels on the ground. The metal wheel stopped rolling but the one with the rubber tyre continued until it hit a gatepost and bounced back.</p> <p>Explain to children that now it is their chance to be inventors, and that their challenge is to invent a new use for a material.</p> <p>Ask children to work in pairs. Allow them to choose either a clear plastic cup, a wooden chopstick, a metal CD or a synthetic bath sponge. Encourage them to be as creative as possible, but they must remember to think about the properties of the materials that their object is made from.</p>	<p>Film a TV commercial selling your invention</p> <p>Using (I can Present) - Laptops</p>

		<p>and shape, make it suitable for its use.</p> <p>I can use technology to organise and present my ideas in different ways.</p>	<p>As children work on their inventions, prompt them to think about the type of material that they have selected and its properties. Create a TV advert selling their invention.</p>	
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