

**YEAR 2 USES OF EVERYDAY MATERIALS PLANNING**

**Class:** Term: **Subject: Science** **Unit: Uses of Everyday Materials**

<p>Differentiation and support (Detailed differentiation in weekly plans.)</p> <p>SEN: write up investigations on writing frames. Support from more able partners in mixed ability work. Additional adult support.</p> <p>GT: provide headings for experiment sections. Encourage predictions conclusions that draw on scientific knowledge. Provide extension activities to apply their own knowledge and to research information independently</p>	<p>English: writing up experiments in sequence using technical language, new vocabulary and listening for information in video clips</p> <p>Maths: categorising materials, Venn diagrams drawing bar graphs</p> <p>ICT: videos and activities on IWB, testing materials simulation</p> <p>Geography and PSHCE: sustainability (reduce, reuse, recycle)</p> <p>D&amp;T: suitability of different materials for different purposes</p>
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<b>Wk</b>	<b>Learning objective</b>	<b>Teaching activities</b>	<b>Resources</b>	<b>Assessment: Success Criteria</b>
1a	To show existing knowledge about materials  (10 mins)	Children to complete given a mind map with named branches e.g. properties of materials, to show what they already know	Mind maps	Formative assessment
1b	To identify where different materials are used in our homes  (35 mins)	<p><b>Intro:</b> Ask children to think, pair, share some examples of objects and the materials that they are made from in our homes, school, the park, the street or anywhere else that they spend time Discuss how we can tell what material things are made from (look, feel, sound, texture), although this can be different in different objects made from the same material e.g. glass is usually smooth, but frosted glass can be bumpy Show children the images of a kitchen, bathroom, living room and bedroom For each image ask them to think ,pair, share what materials they can see have been used and what they have been used for Explain independent work Leave images of rooms up throughout independent work</p> <p><b>Main:</b> Children need to record examples of objects that are made from wood, paper, fabric, glass, rock, metal, plastic and ceramics Encourage children to have a few examples of each, not just lots for one or two</p> <p><b>Plenary:</b> Share examples of objects made from each different material Complete the activities on identifying materials at <a href="https://www.bbc.co.uk/bitesize/topics/z4339j6/articles/zx8hvhv4">https://www.bbc.co.uk/bitesize/topics/z4339j6/articles/zx8hvhv4</a> (scroll down to get to the activity)</p>	<p>Worksheets</p> <p>Links open and ready for plenary</p>	<p><b>MUST:</b> understand that objects are made from materials</p> <p><b>SHOULD:</b> correctly identify which material <i>some</i> items are made from</p> <p><b>COULD:</b> as above, but for more items</p>

2	<p>To classify objects based on the material that they can be made from</p> <p>To recognise that some objects can be made from more than one material</p> <p>(45 mins)</p>	<p>Intro: Explain that many objects can be made from more than one material e.g. a window can be glass or it can be plastic Ask children to think of some more examples of objects that can be made from more than one material</p> <p>Revise how we can tell what material things are made from (look, feel, sound, texture), although this can be different in different objects made from the same material e.g. glass is usually smooth, but frosted glass can be bumpy Explain independent work and how to classify items in a Venn diagram, including putting items that do not fit in any of the sections outside of it</p> <p>Main: Children given a Venn diagram with headings of 'Plastic' and 'Wood' They need to classify images of window frames, toys, chairs, balls, cups, bottles, matches, sheds, fences and radiators in the diagram Extension: If finish quickly, create a different Venn diagram with different materials as the headings for each section; if finish later, add some of their own examples to the 'Plastic' and 'Wood' Venn diagram</p> <p>Plenary: Children compare their work with a partner, discussing any differences Discuss why plastic might be inappropriate for the items that were only made from wood, and vice versa Ask children who got on to creating their own Venn diagrams to come and write the headings on the IWB and ask other children where they would put the items they used in their Venn diagram</p>	<p>Venn diagrams</p> <p>Items to cut and stick</p>	<p>MUST: understand that some objects can be made from more than one material</p> <p>SHOULD: correctly sort objects based on the materials that they can be made from</p> <p>COULD: as above, but also create their own Venn diagram and add objects to it</p>
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3	<p>To identify the material/s that objects are made from</p> <p>To test and record the properties of objects</p> <p>(40 mins)</p>	<p>Intro: Revise how the properties of a material or an object describe its characteristics Explain that scientists test the properties of materials to make sure that they are suitable for an object Watch video on scientists testing materials at <a href="https://www.bbc.co.uk/programmes/p0119c01">https://www.bbc.co.uk/programmes/p0119c01</a> (if the link does not work, Google "BBC science clips "product testing") Explain to children that they are going to be testing the properties of different items Explain independent work</p> <p>Main: Children to test the properties of a number of items and record what they find by adding ticks and crosses to a table with the following headings:</p> <table border="1" data-bbox="443 529 1381 764"> <thead> <tr> <th colspan="2">ITEM</th> <th colspan="6">CAN BE ...</th> </tr> <tr> <th>Object</th> <th>Material</th> <th>Bent</th> <th>Twisted</th> <th>Squashed</th> <th>Stretched</th> <th>Scratched</th> <th>Ripped</th> </tr> </thead> <tbody> <tr> <td>Ruler</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> <p>Emphasise that children should not test the materials to extremes e.g. not try to snap the plastic rulers or rip the clothes Also emphasise that children do not have to start with the first item in the table and work their way down; they can test the items in any order (otherwise they will all want the same objects at the same time) Extension: Children to choose some of their own objects and test their properties, as above</p> <p>Plenary: Ask the children to think about and explain how some of the properties of the objects made them suitable for their purpose e.g. the elastic band being stretchy means that you can wrap it around things of different sizes Discuss how objects that are made of the same material can still have different properties e.g. the paper clip and the coin are both made of metal, but one is flexible whereas the other is not</p>	ITEM		CAN BE ...						Object	Material	Bent	Twisted	Squashed	Stretched	Scratched	Ripped	Ruler								<p>Check videos open and play OK and have them ready to show</p> <p>Plastic rulers, dice, pencils, glass jars, aluminium cans, clay, paper bags, china cups, rubber bands, paper clips, clothing and coins (enough of each of these for each table to share)</p> <p>Worksheets</p>	<p>MUST: test the properties of a number of objects</p> <p>SHOULD: accurately record what they find in a table</p> <p>COULD: link the properties of the item to its suitability for its purpose</p>
ITEM		CAN BE ...																										
Object	Material	Bent	Twisted	Squashed	Stretched	Scratched	Ripped																					
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4	<p>To know a range of properties of materials (50 mins)</p>	<p>Intro: Revise how objects are made from materials, and give an example e.g. a window being made from glass Ask children to think, pair, share the name of as many different materials as they can, and some examples of objects that are made from that material Revise how a property of a material tells us something about it e.g. paper is bendy Ask children to think, pair, share as many examples of properties of materials as they can Model for children how to look the definitions of word up in the glossary of a book and in a dictionary Explain independent work (tell children to leave space for cutting and sticking the images)</p> <p>Main: <i>Part One</i> Children to work in small groups of 3 to 4 Give them a series of properties of materials with their definitions, but jumbled up so that the definition does not match the property In their teams, children need to cut up the properties and their definitions and use the books and dictionaries to re-arrange them so that they match, and then stick them on A3 paper Award points / prize to team who completes this the fastest</p> <p><i>Part Two</i> Give children copies of catalogues and set time limit for this task They need to cut out images of objects from the catalogues and stick them under / next to a property that they have e.g. they might stick a picture of a glass next to the word 'brittle' Tell children that they still need to complete the first task, if they have not done so already Award points to team who has stuck the most images of objects next to appropriate properties</p> <p>Plenary: Children to come and display their A3 sheets from the tasks On the IWB, show children the properties and their definitions jumbled up again Children to drag the definition to be next to the correct property (or draw a line between them if dragging and dropping proves too fiddly)</p>	<p>Lists of properties and their meanings</p> <p>Scissors</p> <p>Glue</p> <p>A3 paper</p> <p>Dictionaries</p> <p>Non-fiction books on materials</p> <p>Catalogues e.g. Argos</p>	<p>MUST: know a number of properties that materials can have</p> <p>SHOULD: as above, but also know and understand the meaning of those properties and some examples of objects that have these properties</p> <p>COULD: as above, but with <i>all</i> of the properties covered in the lesson</p>
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To access the complete [Year 2 Uses of Everyday Materials planning](http://www.saveteacherssundays.com/science/year-2/383/), and all of the resources needed to teach it, visit:

<http://www.saveteacherssundays.com/science/year-2/383/>