



Key Facts	Diagram/Investigations																																				
<p>Cotton is made from a plant, glass is made from sand, paper is made from trees, bricks are made from clay; they are made from natural materials.</p> <p>Plastic is made in a factory it is a manmade material</p> <p>Plastic is colourful, lightweight, strong and waterproof. It is flexible, it can be moulded into any shape. It can be transparent or opaque. It is good for toys, tech and furniture.</p> <p>It lasts a long time but cannot all be recycled.</p> <p>Glass is made by heating sand. It is transparent and good for windows, it is fragile, it can be recycled easily.</p> <p>Metal is made by heating metal ore which comes from the ground. It is strong and absorbs heat, it can be recycled. It is expensive</p>	<div><div><div><div>Comparing and Grouping</div><div>Grouping materials.</div><div><p>Today we are going to have a go at grouping materials using a Venn diagram.</p><p>A Venn diagram is two circles that overlap. Each circle has a label that we can use to compare the materials.</p><p>If a material has both of the properties it goes in the middle. If it has just one then it is placed in one circle or the other. Materials that have neither property are placed around the outside.</p><p>An example is shown below:</p></div><div></div></div></div><div><table><tr><th>Object</th><th>Stretch</th><th>Twist</th><th>Bend</th><th>Squash</th></tr><tr><td>stone</td><td></td><td></td><td></td><td></td></tr><tr><td>plastic bag</td><td></td><td></td><td></td><td></td></tr><tr><td>eraser</td><td></td><td></td><td></td><td></td></tr><tr><td>sponge ball</td><td></td><td></td><td></td><td></td></tr><tr><td>elastic band</td><td></td><td></td><td></td><td></td></tr><tr><td>elastic band ball</td><td></td><td></td><td></td><td></td></tr></table></div></div> <div>Compare and group materials by their property</div> <div>squashing, bending, twisting and stretching</div>	Object	Stretch	Twist	Bend	Squash	stone					plastic bag					eraser					sponge ball					elastic band					elastic band ball					
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Key Learning:	Prior Learning:	Books to support/ Enrichment Opportunities:																																			
<p>Material Properties – Uses of Materials</p> <p>Identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, water, rock, paper and cardboard for particular uses.</p> <p>Some materials can be found naturally; others have to be made.</p> <p>Materials- Changing Materials</p> <p>Find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching (applying a force). Ask simple questions and recognise that they can be answered in different ways. Observe closely, using simple equipment.</p> <p>Perform simple tests. Gather and record data to help in answering questions. Identify and classify</p> <p>Use their observations and ideas to suggest answers to questions.</p> <p>Heating and cooling materials eg; wax, bread, wood</p>	<p>Vocabulary</p> <p>Stretchy, Shiny, Dull, Rough, Smooth, Bendy, Brick, Paper, Fabrics, Squashing, Bending, Twisting, Stretching, Elastic, Foil</p>	<div><div><div><div>Charles discovered waterproof fabric</div><div></div></div></div><div><ul style="list-style-type: none">Charles Mackintosh Scottish ChemistBorn 1766Best known for his invention of 1823 where he discovered how to make fabric waterproof using rubber to create a wax surface.</div></div>																																			

Subject Specific Vocabulary	
Key word	Definition
Materials	Materials are what things are made from.
Suitability	having properties that are right for a specific purpose.
Properties	This is what a material is like and how it behaves (eg. soft, stretchy, waterproof).
Flexible	Something that can bend or change shape without breaking.
Waterproof	When water is unable to soak through.
Insulator	A material that does not easily allow heat to pass through it.
Absorbs	To take in or soak up.
Reflects	To throw back heat without absorbing it.
Opaque	Unable to see-through
Transparent	See-through
Natural	From a plant or animal or the ground
Manmade	Created in a factory