



SS John Fisher & Thomas More Catholic Primary School

A Voluntary Academy

"Journeying together with Jesus Christ, we learn to love and love to learn."



Medium Term Planning Creative Learning Journey

Subject: Science	Topic: Everyday Materials - Autumn 2	Differentiation
NC Links: Year 1 Everyday Materials <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.		
Lesson 1: I can describe the simple properties of everyday materials. <i>Working Scientifically objectives:</i> <i>Compare materials using scientific language; make careful observations</i>	Watch this video to recap different materials, where they come from and what they are used for: https://www.youtube.com/watch?v=XnkQcP-RHCw Starter activity: Find objects in the classroom which are made out of more than one material and identify what they are (e.g. pencil sharpener - plastic and metal) TTYP - What does the word 'properties' mean? Display these key words and discuss what they mean: hard, soft, light, heavy, shiny, dull, rough, smooth, flexible, stretchy, stiff, waterproof, absorbent, transparent, translucent, opaque Can children think of any other properties of materials? Remind children that a property of a material tells us something about it. Have a range of objects made from different materials and ask children to	SEN/LA: Children create a poster, naming the materials and their properties. MA/HA: Children write three properties for each material e.g. wood is hard, rigid and rough. Year 2 challenge: Children talk about how they can tell the difference between two materials based on their properties e.g. My material is transparent and smooth. How can I tell if it is glass or plastic?



SS John Fisher & Thomas More Catholic Primary School

A Voluntary Academy

"Journeying together with Jesus Christ, we learn to love and love to learn."



Medium Term Planning Creative Learning Journey

	describe what they look/feel like. What words would they use to describe each object/material?	
<p>Lesson 2: I can compare the materials using a Venn diagram.</p> <p>Working Scientifically objectives: Identify and classify materials; ask questions about materials.</p>	<p>Starter activity: Children match a material to each of these properties: hard, soft, light, heavy, shiny, dull, rough, smooth, flexible, stretchy, stiff, waterproof, absorbent, transparent, translucent, opaque</p> <p>They choose from the following materials: water, rock, paper, metal, glass, plastic, wood, cardboard and fabric.</p> <p>Now we are going to sort the materials using a Venn diagram. Show the children examples of Venn diagrams and explain that if an object could go in either category, it is placed in the middle where the two circles overlap.</p> <p>Task 1: As a class, complete a simple Venn diagram to sort materials based on their properties using the properties 'smooth' and 'rough.'</p> <p>Discuss how some materials could go in the middle of the Venn diagram e.g. wood is rough at first, but can be smoothed out to make furniture. Rocks are usually rough, but you can find smooth rocks on the beach that have been shaped by the sea.</p>	<p>SEN/LA: Children stick materials into the correct place on a Venn diagram with simple titles e.g. light and heavy, hard and soft</p> <p>MA/HA: Children write the materials in the correct place on two different Venn diagrams with more complicated properties (transparent and opaque/flexible and rigid)</p> <p>Year 2 challenge: Create their own Venn diagrams for objects around the classroom, stating the material they are made from (e.g. opaque = metal table, plastic chairs transparent = glass windows, plastic container)</p>



SS John Fisher & Thomas More Catholic Primary School

A Voluntary Academy

"Journeying together with Jesus Christ, we learn to love and love to learn."



Medium Term Planning Creative Learning Journey

Lesson 3:

I can use a classification key to show the properties of materials.

Tell the children over the last few lessons, we have been looking at the properties of materials. Today we are going to use a classification key to group materials.

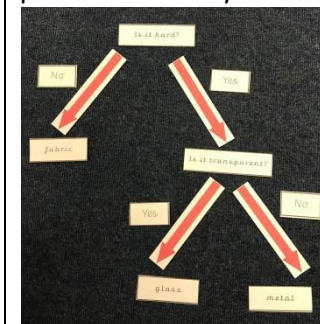
Explain that a classification key is a series of questions that help you work out the characteristics of something. When you answer one question, it either branches off to another question or identifies the material.

Show images of classification keys and emphasise how all of the questions asked need to be answered with 'yes' or 'no.'

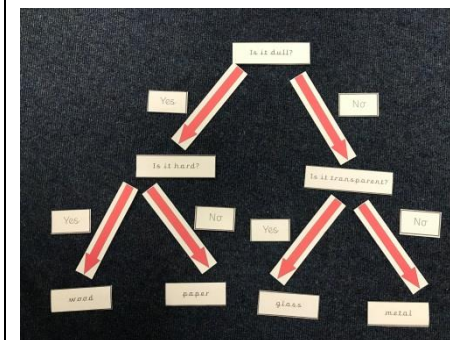
Task 1 - Display a blank classification key with different types of food at the bottom and yes/no question stems. Children work in mixed ability pairs to place each item of food in the correct place.

Model how to put pictures of each material in the correct place on a pre-built classification key.

SEN/LA: Children add materials to a classification key practically, create pic collage. Question stems are provided and only two branch offs.



MA: Children fill in the missing materials on the classification key provided (two level key)





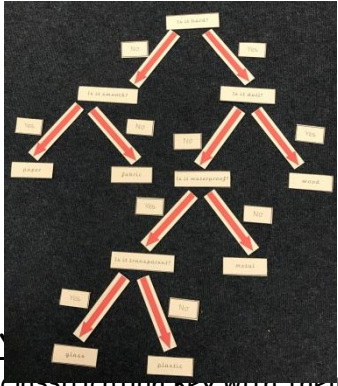
SS John Fisher & Thomas More Catholic Primary School

A Voluntary Academy

"Journeying together with Jesus Christ, we learn to love and love to learn."



Medium Term Planning Creative Learning Journey

		<p>HA: Children fill in the missing materials on the classification key provided (three level key)</p>  <p>create a classification key with their own questions stems.</p>
<p>Lesson 4: I can compare materials with similar characteristics.</p>	<p>Tell the children that when we looked at classification keys, we noticed some materials had similar properties. For example, if we asked 'is it hard?' which materials could we choose?</p> <p>Show the children images of two materials and ask the children to say one thing that is similar and one thing that is different e.g. for the image of</p>	<p>SEN/LA: Children discuss similarities between materials provided, using simple answers e.g. for plastic and wood: similar = hard, smooth, rigid</p>



SS John Fisher & Thomas More Catholic Primary School

A Voluntary Academy

"Journeying together with Jesus Christ, we learn to love and love to learn."



Medium Term Planning Creative Learning Journey

	<p>glass and plastic, similar = both are hard and transparent, different = glass is rigid, most plastic is flexible.</p> <p>Task 1 - Display images of materials and a list of properties below (there must be two of each word). Children drag and drop each word to the correct material. Discuss which materials were similar e.g. which materials are soft? Which ones are opaque?</p> <p>This will help children to decide which materials have similarities and are easier to compare or group together.</p>	<p>MA/HA: Children create a 'lift the flap' information sheet. They discuss both similarities and differences between materials.</p> <p>Year 2 challenge: Display images of objects made from three different materials e.g. three spoons: one wood/one metal/one plastic. Children explain why all three materials can be used to make the same object.</p>
<p>Lesson 5: I can explain why objects are made from some materials and not others.</p> <p>Working Scientifically objectives: Ask and answer questions, explain and give reasons</p>	<p>Starter activity: Match the object to the material it is made from.</p> <p>Today we're going to talk about materials which are good for some things, but not for others.</p> <p>Display pictures of materials on the board and discuss what they are good for and why. Then discuss why they can't be used for certain things. E.g. Metal is good for making cars because it is hard and strong. It can't be used to make windows because it is opaque.</p> <p>Continue this process for the other materials: wood, glass, plastic, fabric and paper</p>	<p>SEN/LA: Children have a list of objects and they decide which material would be best to make them E.g. Pencil - Use wood because it is light and smooth.</p> <p>MA/HA: Children create their own 'What would happen if?' questions for each picture displayed and explain what would happen. E.g. What if a shoe was made of metal? It would be too heavy and it would be dangerous if it had sharp edges.</p>



SS John Fisher & Thomas More Catholic Primary School

A Voluntary Academy

"Journeying together with Jesus Christ, we learn to love and love to learn."



Medium Term Planning Creative Learning Journey

	<p>Task 1 - Show children images of objects made from unsuitable materials. Ask the question 'What would happen if ...?' and allow children time to discuss what would happen if the objects were made of the suggested materials. Take some suggestions before revealing the answer.</p> <p>Task 2 - Children list unsuitable materials for some of the objects they use in the classroom (e.g. an eraser made from metal or a pencil made from fabric). They generate their own "What would happen if ...?" questions.</p>	<p>Year 2 challenge: Using sub-headings, write two sentences for each material, explaining why it is used to make one object, but not another. E.g. We use metal to make...because... We can't use it to make because ...</p>
<p>Lesson 6: I can write an information text about everyday materials.</p>	<p>Today we will be writing an information text about materials. Discuss features of an information text:</p> <p>Main title Question sub-headings Photos/diagrams Interesting facts Third person</p> <p>Explain that we will be splitting our ideas into four sections: Types of materials (explain what everyday materials are, list some examples and say what they are used to make) Properties of materials (use experiments from previous lessons to discuss what materials are like) Use of materials (explain why some materials are better for certain things than others)</p>	<p>SEN/LA: Write simple sentences about materials with three sub-headings provided (properties of materials, uses of materials and recycling)</p> <p>MA/HA: Write an information text using four subheadings already provided (types of materials, properties of materials, use of materials and recycling)</p> <p>Year 2 challenge: Children change four subheadings into questions e.g. properties of materials = what are the properties of materials?</p>



SS John Fisher & Thomas More Catholic Primary School

A Voluntary Academy

"Journeying together with Jesus Christ, we learn to love and love to learn."



Medium Term Planning Creative Learning Journey

Recycling (talk about how and why we recycle)

For LA/SEN children, model how to write a simple sentence for each section using a capital letter, full stop and 'and' to make sentences longer. Then keep MA/HA children on the carpet and show them how to structure longer paragraphs with question sub-headings. Encourage children to refer to previous lessons in their books to help them.

Applied Write opportunities: Children to apply knowledge learnt in previous lessons to write an information text about materials. This links to L&L Unit 1 when the children will learn how to structure an information text.

Key Vocabulary:

Tier 2 - group, identify, classify, discuss, change, reuse, reduce

Tier 3 - materials, metal, wood, plastic, glass, brick, rock, paper, water, fabric, cardboard, hard, soft, rough, dark, smooth, opaque, transparent, absorbent, stiff, dull, rigid, elastic, waterproof, absorbent, dull, shiny, recycling, recycle