



# The Moorlands Primary Federation Science Plan



School:            Class: Year 2  
Termly Learning Plan: Material Monster      Term: Autumn 2

### Unit Overview:

This topic explores the properties and uses of everyday materials, set in the context of meeting, talking to and feeding the Materials Monster.

### STEAM (Science, technology, Engineering, Art, Maths)

Invite  
into class Local builder to show children different materials used in building. Invite local artist or parent to make recycled paper. Invite local artist or parent to weave using recyclable materials, including a large weaving project in the school grounds.  
Visit  
School grounds or local streets to see which materials and how they are used. Park, building site, housing estate, farm to look at how different materials are used.

Objectives	Learning Opportunity	Resources
------------	----------------------	-----------

<p><b>NC Objectives</b></p>	<p>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>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>Wide range of objects made from different materials Word mat PowerPoint Slides 3–5</p> <p>PowerPoint Slides 6–10 Objects made from a range of different materials Cards or sticky notes</p>
<p><b>Lesson 2</b> TALK TO MATERIALS MONSTER Identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses TAKING MATERIALS MONSTER OUTSIDE Identify and classify. Observe closely, using simple equipment.</p>	<p>Observe closely, using simple equipment.</p>	<p>Range of materials such as fabric, paper, plastic, wood, metal ceramics Activity Resource 2.1 PowerPoint Slides 6–12</p> <p>Activity Resource 2.2 Cameras or other technology to record materials PowerPoint Slide 13</p>
<p><b>Lesson 3</b> TAKE THE MATERIALS MONSTER HOME Identify and classify.</p>	<p>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>PowerPoint Slide 14 Activity resources 2.3 and 2.4</p>
<p><b>Lesson 4</b> SILLY MATERIALS MONSTER BOOK 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>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>PowerPoint Slide 15</p>
<p>Lesson 5 SQUASH, BEND, TWIST, STRETCH Find out how the shapes of solid objects made from some materials can be changed by</p>	<p>Perform a simple test.</p>	<p>Selection of materials or objects that can squashed, twisted etc.</p>

squashing, bending, twisting and stretching.		
<p><b>Lesson 6</b>  <b>MAKE YOUR OWN MATERIALS MONSTER</b>  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>Observe closely.  Perform simple tests.  Identify and classify.  Use observations and ideas to suggest answers to questions</p>	<p>Wide range of materials with different properties</p>
<p><b><u>Cross curricular links</u></b></p> <p><b>English</b>  This topic offers the following cross-curricular opportunities: Learn names of materials. Create a monster vocabulary display, e.g. enormous, monstrous, massive, mammoth. Use non-fiction books to find information about different materials and recycling. Storytelling: How did Materials Monster arrive? Where did he come from? What does he eat? Where does he live? Create a play script about Materials Monster. Ask and find the answers to their own questions about different materials. Consider the opinions of others, e.g. should we recycle? Write poems about materials. Read: The Slimy Book by Babette Cole Biscuit Bear by Mini Grey Dinosaurs and all that Rubbish by Michael Foreman.</p> <p><b>Mathematics</b>  Shape, e.g. packaging, brick patterns. Size and volume. Tessellations.</p> <p><b>Music</b>  Use recyclable materials to create sound makers. Make Materials Monster sounds.</p> <p><b>D &amp; T</b>  Recycling materials to make useful objects, e.g. pen pots.</p> <p><b>Art</b></p>		

Create a Materials Monster collage. Patterns using objects such as plastic bottle tops. Weaving with different materials, e.g. plastic, paper, fabric. Learn about different craft, e.g. felting, weaving, pottery. Use a range of materials creatively to design and make products e.g. recycling materials. Geography

Origins of materials, e.g. paper from trees (forests), clay from quarries.

### **History**

History of materials, e.g. when glass was first used, when was plastic discovered, wool through the ages. Which materials do we use now that parents and grandparents did not have? Create a time line of when materials were first used, e.g. rubber, plastic.

### **Computing**

Use a tablet to take photographs. Use a tablet for QR codes to spot and name materials, to find materials and read information about them. Use a digital microscope to view different materials. Use a graphics programme to design a Materials Monster. Use the web to research how materials such as glass, pottery are made.

- ACTIVITY RESOURCES

2.1: Monster Materials

2.2: Question Stems

2.3: Materials Monster Car

2.4: Materials Monster House

#### ONLINE RESOURCES:

Teaching Slides (PowerPoint): Materials Monster

Interactive activity: Materials Monster

CPD video: Materials Monster

Pupil video: Materials Monster

Word mat: Materials Monster

Editable Planning: Materials Monster

Topic Test: Materials Monster

## **Vocabulary**

material: something that an object is or can be made from, e.g. a saucepan can be made from metal

properties: the characteristics of a material, e.g. glass can be transparent. transparent is the property

key words: absorbent / bend / brittle / bumpy / card / change / concrete / dull / elastic / fabric / flexible / glass / hard / man-made materials / metal / natural materials / opaque / paper / plastic / recycle / rough / rubber / shiny / smooth

## **Christian Distinctiveness**

Special fabrics for special celebrations