



	ELG's	How this is achieved in EYFS	DT KS1	
			Year 1	Year 2
Specific Area of Learning Understanding the World	<p><b>Use a range of small tools, including scissors, paint brushes and cutlery;</b></p> <p><b>Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function;</b></p> <p><b>Share their creations, explaining the process they have used;</b></p>	<p><b>3 to 4 year olds will be learning to:</b></p> <ul style="list-style-type: none"> <li>Use one-handed tools and equipment, for example make snips with scissors</li> </ul> <p><b>Children in Reception will be learning to:</b></p> <ul style="list-style-type: none"> <li>Develop their small motor skills so that they can use a range of tools competently, safely and confidently</li> </ul> <p><b>3 to 4 year olds will be learning to:</b></p> <ul style="list-style-type: none"> <li>Talk about and explore 2D and 3D shapes (for example, circles, rectangles, triangles and cuboids) using informal language: 'sides', 'corners', 'straight', 'flat', 'round'.</li> <li>Make comparisons between objects relating to size, length, weight and capacity</li> <li>Select shapes appropriately: flat surfaces for building, a triangular prism for a roof etc.</li> <li>Combine shapes to make new ones - an arch, a bigger triangle etc.</li> <li>Talk about and identify the patterns around them. For example: stripes on clothes, designs on rugs and wallpaper. Use informal language like 'pointy', 'spotty', 'blobs', etc.</li> <li>Notice and correct an error in a repeating pattern</li> </ul> <p><b>Children in Reception will be Learning to:</b></p> <ul style="list-style-type: none"> <li>Select, rotate and manipulate shapes in order to develop spatial reasoning skills</li> <li>Compose and decompose shapes so that children recognise a shape can have other shapes <i>within</i> it, just as numbers can</li> <li>Continue, copy and create repeating patterns</li> <li>Compare length, weight and capacity</li> </ul> <p><b>3 to 4 year olds will be learning to:</b></p> <ul style="list-style-type: none"> <li>Use all their senses in hands-on exploration of natural materials</li> <li>Explore collections of materials with similar and/or different properties</li> <li>Talk about what they see, using a wide vocabulary</li> <li>Talk about the differences between materials and changes they notice</li> </ul> <p><b>3 to 4 year olds will be learning to:</b></p> <ul style="list-style-type: none"> <li>Explore different materials freely, in order to develop their ideas about how to use them and what to make</li> <li>Develop their own ideas and then decide which materials to use to express them</li> <li>Join different materials and explore different textures</li> </ul> <p><b>Children in Reception will be learning to:</b></p> <ul style="list-style-type: none"> <li>Return to and build on their previous learning, refining ideas and developing their ability to represent them</li> <li>Create collaboratively, sharing ideas, resources and skills</li> </ul>		<p>Mechanisms</p> <p>Structures</p> <p>Food and Nutrition</p> <p>Textiles</p>



Year 1

### Block A Mechanisms -

**How can you make a picture move?**

**Know -**

Common uses of sliders  
Different methods to create card sliders  
How sliders can create simple mechanisms

**Be able to -**

Design and make a slider product  
Evaluate the success of their outcomes and recommend improvements

### Block B Structures -

**How can you stop a tower from toppling over?**

**Know -**

A freestanding structure is a structure that stands on its own foundation or base without attachment to anything else.

**Be able to -**

Build structures that are freestanding using a range of different materials.

### Block C Food and Nutrition -

**How does food affect your senses?**

**Know -**

Why colourful food can be healthier  
How different foods can affect their senses

**Be able to -**

Peel, chop and grate a selection of vegetables  
Modify food to suit their food senses

### Block D Textiles -

**How can two squares of fabric keep you warm?**

**Know -**

Fabric can be joined together using a running stitch  
The types and names of tools needed for sewing

**Be able to -**

Create a running stitch, select tools for sewing, thread a needle



Year 2

### Block A Textiles -

**How can you repurpose an item of clothing?**

**Know -**

How to cut out shapes which have been created by using a template  
How to use a range of basic sewing skills

**Be able to -**

Use a template to transfer a pattern  
Cut out and join fabric shapes using a template

### Block B Food and Nutrition -

**What does healthy mean?**

**Know -**

Why vegetables are so important to our health  
What processed foods are

**Be able to -**

Prepare a range of salad vegetables  
Shape and season a bread snack

### Block C Mechanisms -

**Are bigger wheels always better?**

**Know -**

How wheels and axles work together  
The size and position of wheels affects how they move

**Be able to -**

Create a simple wheel mechanism  
Use wheel mechanisms to propel a simple vehicle

### Block D Structures -

**How strong is a piece of paper?**

**Know -**

Paper becomes stronger when it is folded  
A load is the amount of weight a structure must carry

**Be able to -**

Fold paper to increase strength and stability  
Test and record how much weight paper can hold



**Year 3**

### **Block A Textiles -**

**How can you make a box out of cloth?**

**Know -**

Fabric can be stiffened  
Stiffened fabric can hold a form

**Be able to -**

Select and apply solutions to stiffen fabric  
Make a box using stiffened fabric

### **Block B Food and Nutrition -**

**What do we mean by a balanced diet?**

**Know -**

What is meant by the term balanced  
Why fresh foods are better

**Be able to -**

Make a fruit and yoghurt dessert  
Make homemade chips  
Flavour foods to increase their sensory qualities

### **Block C Mechanisms -**

**How can you do a lot of work with little effort?**

**Know -**

Types of levers and linkages  
Key terminology relating to levers and linkages  
How levers and linkages can change the direction of movement

**Be able to -**

Design and make simplistic lever and linkage products  
Evaluate the success of their outcomes and recommend improvements

### **Block D Structures -**

**What makes a bridge strong?**

**Know -**

Bridges are structures that allow people and vehicles to cross over an open space  
Towers, piers and arches provide strength to a bridge

**Be able to -**

Design and build a beam bridge that can hold the weight of 100 pennies  
Identify and name parts of a bridge



Year 4

### Block A Food and Nutrition -

#### What's really in your food?

##### Know -

Processed foods have many added ingredients

##### Be able to -

Make, roll and shape bread dough

Make a soup

### Block B Textiles -

#### How do you keep a tea towel from slipping off a hook?

##### Know -

Fastenings have different functions

A shank provides a small amount of space between the button and fabric

##### Be able to -

Select appropriate fastenings and attach them to fabric

Make a shank for a button

### Block C Structures -

#### Which shapes will give a structure stability?

##### Know -

Triangles provide stability in a structure

Structural engineers work with architects to ensure structures withstand forces

##### Be able to -

Make triangles to form and join trusses

Identify the forces that affect structures

### Block D Electrical Systems -

#### How useful are switches?

##### Know -

A switch is an interruption in a circuit

Switches are widely used in a range of products

##### Be able to -

Incorporate different types of switches into circuits to perform a function



<p><b>Year 5</b></p>	<p><b>Block A Food and Nutrition -</b></p> <p><b>What can you learn from different cultures' diets?</b></p> <p><b>Know -</b></p> <p>How foods can be used as medicines How eating food from different countries can help us be healthy</p> <p><b>Be able to -</b></p> <p>Roll and shape ingredients Slice and ribbon a range of vegetables Stir-fry vegetables</p>	<p><b>Block B Textiles -</b></p> <p><b>Which fabric is ideal for creating a functional and hard wearing lunch bag?</b></p> <p><b>Know -</b></p> <p>How to waterproof cotton fabric Which fabrics are both functional and hardwearing</p> <p><b>Be able to -</b></p> <p>Use beeswax to waterproof cotton fabric Repurpose a pair of jeans</p>
	<p><b>Block C Mechanisms -</b></p> <p><b>How can you lift a car onto a roof?</b></p> <p><b>Know -</b></p> <p>Types of gears and terminology relating to gears Common uses of pulleys and gears How pulleys and gears can change the direction of movement</p> <p><b>Be able to -</b></p> <p>Design and make products that use pulleys and gears to lift loads Evaluate the success of their outcomes and recommend improvements</p>	<p><b>Block D Structures -</b></p> <p><b>How are frames strengthened, reinforced and made rigid?</b></p> <p><b>Know -</b></p> <p>Engineers use a range of methods to strengthen and reinforce structures</p> <p><b>Be able to -</b></p> <p>Identify and describe ways that frames are strengthened and reinforced</p>



Year 6

### Block A Food and Nutrition -

**Does food affect the way you feel?**

**Know -**

The difference between slow release and quick release carbohydrates  
How food can improve their mood and energy levels

**Be able to -**

Dice, slice, peel, grate and cook a range of vegetables  
Make a sauce and a stock  
Use height and colour to improve the visual appeal of food -

### Block B Mechanisms -

**How do pulleys and gears let you see the world?**

**Know -**

Types of pulley systems and gears  
Common uses of pulleys and gears  
How pulleys and gears can create simple mechanisms and change direction of movement

**Be able to -**

Design and make a model Ferris wheel powered by gears  
Evaluate the success of their outcomes and recommend improvements

### Block C Electrical Systems -

**Can switches perform more than one function?**

**Know -**

More than one switch can be used to change the functionality of a product

**Be able to -**

Use switches to adapt a product in response to a design brief

### Block D Textiles -

**How can we reduce, recycle and repurpose?**

**Know -**

Plastic waste can be recycled and repurposed into practical, useful items

**Be able to -**

Make a crochet hook out of a chopstick  
Use plastic bags and snack packets to create practical items