

Design and Technology Whole School Progression

EYFS

Nursery

Key Skills

Exploring and engaging
Stirring and mashing
Joining
Building in rows and stacking vertically
Moving blocks
Constructing

Vocabulary

Material and textures

Tools

Fork or potato masher
Using glue
Blocks
Loose parts, crates, planks, cardboard boxes and large wooden blocks
Age-appropriate construction kits

Reception

Key Skills

Exploring and engaging
Stirring and mashing
Chopping and grating ingredients
Beating mixtures
Folding in ingredients with support
Building on a large scale outdoors with loose parts.
Den building from a variety of resources.
Dismantling things and learning about how everyday objects work.
Having opportunities to use a range of tools.
Exploring, designing and making at the woodwork bench.
Varied range of joining techniques.
Building showing some understanding of pattern, shape and balance .
Moving blocks.
Constructing more complex structures.
Developing more complex tearing and folding.

Vocabulary

Material and textures

Tools

Fork or potato masher
Knife
Grater
Whisk
Glue
Hole punch with support
Stapler with support
Large-eyed needles with support
Blocks
Loose parts, crates, planks, cardboard boxes and large wooden blocks

			<div>More complex construction kits</div> <div>Design and Evaluate</div> <div>Discussing and evaluating own and others’ creations.</div> <div>Children talking about and planning and adapting their ideas.</div> <div>Discussing what makes activities safe or unsafe e.g. hygiene or when using tools.</div>			
Key Stage 1						
Own project work to include... Design and Evaluate Design purposeful, functional, appealing products for themselves and other users based on design criteria Generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology. Explore and evaluate a range of existing products Evaluate their ideas and products against design criteria						
KS1	Food	Textiles (within art & design)	Mechanisms	Structures	Electrical Systems	Programming (stand alone or within another topic)
Yr1	<div>Skills</div> <div>Measure (non-standard units)</div> <div>Prepare (eg mash, stir, cut)</div> <div>Peel (with fingers)</div> <div>Basic food hygiene</div> <div>Tools used</div> <div>Spoon</div> <div>Fork</div> <div>Knife –with support</div>	<div>Skills</div> <div>Measure (non-standard units)</div> <div>Cut - attempt to cut a straight line with scissors</div> <div>Join – glue, staples, masking tape, paper clips</div> <div>Tools used</div> <div>Scissors</div> <div>Stapler</div>		<div>Skills</div> <div>Measure (non-standard units)</div> <div>Cut - attempt to cut with scissors</div> <div>Join – glue, staple masking tape, paper clips</div> <div>Fold</div> <div>Tools used</div> <div>Scissors</div> <div>Stapler</div>		

	<p><u>Key vocabulary</u> Healthy diet & nutrition Sweet & savoury Ingredients Grown</p>	<p>Glue Hole punch – with support Needle work – with support</p> <p><u>Key vocabulary</u> Material Textiles</p>		<p>Glue Hole punch</p> <p><u>Key vocabulary</u> Properties of material – strong, stiff, stable</p>		
Yr 2	<p><u>Skills</u> Measure (non-standard units) Prepare (eg mash, stir, cut) Peel (with fingers and <i>try peeler</i>) <i>Cut/chop</i> Basic food hygiene</p> <p><u>Tools used</u> Spoon Fork Knife- <i>independently</i> eg banana <i>Peeler – with support</i></p> <p><u>Key vocabulary</u> Healthy diet & nutrition Sweet & savoury</p>		<p><u>Skills</u> <i>Measure (non-standard units) and assemble to move a load/weight from a to b</i></p> <p><u>Tools used</u> New DT cube!</p> <p><u>Key vocabulary</u> Slider Lever</p>	<p><u>Skills</u> Measure (non-standard units) Cut <i>with increased accuracy</i> Join – glue, masking tape, paper clips, <i>split pins, string/rope</i> Fold</p> <p><u>Tools used</u> Scissors Stapler Glue Hole punch <i>Hammer</i></p> <p><u>Key vocabulary</u> Properties of materials -strong, stiff, stable</p>		

	Ingredients Grown <i>Seasonality</i>					
Lower Key Stage 2						
<p>Own project work to include...</p> <p><u>Design</u> Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups Generate, develop, model and communicate their ideas through discussion, annotated sketches, prototypes and/or computer-aided design</p> <p><u>Evaluate</u> Investigate and analyse a range of existing products Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work Understand how key events and individuals in design and technology have helped shape the world</p> <p><u>Understand how key events and individuals in design and technology have helped shape the world.</u> Year 3: Tim Berners–Lee (world wide web) Year 4: Charles Macintosh (waterproof material)</p>						
Lower KS2	Food	Textiles (within art & design)	Mechanisms	Structures	Electrical Systems	Programming (stand alone or within another topic)
Yr3	<u>Skills</u> Measure with support (standard units) Prepare (eg mash, stir, cut) Cut/chop/ slice Peel (with fingers and peeler))	<u>Skills</u> Measure (standard units) Cut in a straight line, begin to shape Join – glue, staples, masking tape		<u>Skills</u> Measure accurately using standard units Cut carefully Join – glue, masking tape, paper clips, split		<u>Skills</u> Know how to debug one error in a set of code. Know how to plan a specific route for a BeeBot.

	<p><i>Mix</i> Basic food hygiene</p> <p><u>Tools used</u> Spoon Fork Knife Peeler <i>Measuring jug - with support</i> <i>Scales – with support</i></p> <p><u>Key vocabulary</u> Healthy <i>varied</i> diet & nutrition Sweet & savoury Ingredients Seasonality Grown, <i>reared, caught</i> <i>Standard unit of measurement – grammes</i></p>	<p>Needle work – <i>some independence to thread a needle</i> <i>To be aware of different stitches</i></p> <p><u>Tools used</u> Scissors Stapler Glue Needle <i>Glue gun with support</i></p> <p><u>Key vocabulary</u> Material Textiles <i>Fabric</i></p>		<p>pins, string/rope, nails Fold</p> <p><u>Tools used</u> Scissors Stapler Glue Hole punch Hammer <i>Saw</i> <i>Glue gun</i></p> <p><u>Key vocabulary</u> Measure Cut Join Fold Properties & function of materials -strong, stiff, stable</p>		<p><u>Key vocabulary</u> <i>Route</i> <i>Direction</i> <i>Orientation</i> <i>Block coding</i> <i>Sequence</i> <i>Loops</i> <i>Debug</i></p>
Yr4	<p><u>Skills</u> Measure <i>with increased accuracy</i> (standard units) Prepare Cut/chop/slice Peel Mix</p>		<p><u>Skills</u> Move a <i>greater</i> load from a to b <i>in 2 different ways. Understand how gears and pulleys can be used to</i></p>		<p><u>Skills</u> <i>To assemble components successfully</i></p> <p><u>Tools used</u> <i>Bulbs</i> <i>Crocodile clip</i></p>	<p><u>Skills</u> Know how to debug <i>multiple</i> errors in a set of code. Know how to plan a <i>more complex</i> route for a BeeBot.</p>

	<p>Basic food hygiene</p> <p><u>Tools used</u> Spoon Fork Knife Peeler Measuring jug – with support Scales – with support</p> <p><u>Key vocabulary</u> Healthy varied diet & nutrition Sweet & savoury Ingredients Seasonality Grown, reared, caught Standard units of measurement – grammes</p>		<p><i>speed up, slow down.</i></p> <p><u>Tools used</u> New DT cube!</p> <p><u>Key vocabulary</u> Slider Lever <i>Pulley</i> <i>Gear</i></p>		<p><u>Key vocabulary</u> <i>Circuits</i> <i>Bulbs</i> <i>Crocodile clip</i></p>	<p><u>Key vocabulary</u> Route Direction Orientation Block coding Sequence Loops Debug <i>Algorithms</i> <i>Block coding</i> <i>Controls</i> <i>Variable</i> <i>Debug</i></p>
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Upper Key Stage 2

Own project work to include...

Design

Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups

Generate, develop, model and communicate their ideas through discussion, annotated sketches, *cross-sectional and exploded diagrams*, prototypes, *pattern pieces and* computer-aided design.

Evaluate

Investigate and analyse a range of existing products.

Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work.

Understand how key events and individuals in design and technology have helped shape the world.

Year 5: Alexander Graham Bell (telephone)

Year 6: W.B Wilkinson (concrete)

Upper KS2	Food	Textiles (within art & design)	Mechanisms	Structures	Electrical Systems	Programming (stand alone or within another topic)
Yr5	<p><u>Skills</u> Measure (standard units, increased accuracy) Prepare Cut/chop/slice Peel Mix/stir/<i>beat</i> Basic food hygiene</p> <p><u>Tools used</u> Spoon Fork Knife Peeler Measuring jug Scales</p> <p><u>Key vocabulary</u> Healthy varied diet & nutrition Sweet & savoury</p>	<p><u>Skills</u> Measure (standard units, greater degree of accuracy) Cut <i>around a pattern</i> Join - <i>Sew materials together.</i> <i>Demonstrate running stitch with some precision.</i> To be aware <i>and attempt</i> different stitches. Needle work – <i>independently thread a needle.</i> <i>Finishing – begin to tie off the thread, decoration (eg with buttons)</i></p>			<p><u>Skills</u> <i>To assemble components making working models</i></p> <p><u>Tools used</u> Bulbs Crocodile clip <i>Switches Buzzes Motors</i></p> <p><u>Key vocabulary</u> Circuits Bulbs Crocodile clip <i>Switches Buzzes Motors</i></p>	<p><u>Skills</u> <i>Know how to create a set of accurate code, predicting the outcome.</i></p> <p><u>Key vocabulary</u> Route Direction Orientation Block coding Sequence Loops Debug Algorithms Block coding Controls Variable Debug <i>Predictions</i></p>

	Ingredients Seasonality Grown, reared, caught, <i>processed</i> <i>Standard units of measurement – kg, grammes, ml, litre</i> <i>Temperature</i>	<u>Tools used</u> Scissors Stapler Glue Needle <i>Glue gun</i> <u>Key vocabulary</u> Material Textiles Fabric <i>Finishing</i>				
Yr6	<u>Skills</u> Measure (standard units, greater degree of accuracy) Prepare Cut/chop/slice Peel Mix/stir/beat <i>Supervised use of cooking appliance (heat)</i> Basic food hygiene <u>Tools used</u> Spoon Fork Knife Peeler Measuring jug Scales		<u>Skills</u> Move a greater load from a to b <i>in 3 different ways</i> Understand how gears and pulleys can be used to speed up, slow down <i>or change the direction of movement.</i> <u>Tools used</u> New DT cube! <u>Key vocabulary</u> Slider Lever Pulley Gear <i>Ratio</i>	<u>Skills</u> Measure accurately using standard units Cut carefully Join – glue, masking tape, paper clips, split pins, string/rope, nails, screws Fold <i>Construct more complex structures</i> <u>Tools used</u> Scissors Hole punch Saw Glue gun Hammer <i>Drill (with support)</i>		<u>Skills</u> Know how to create a set of code for <i>a specific purpose,</i> predicting <i>and</i> <i>debugging</i> outcomes. <u>Key vocabulary</u> Route Direction Orientation Block coding Sequence Loops Debug Algorithms Block coding Controls Variable Debug Predictions

	<u>Key vocabulary</u> Healthy varied diet & nutrition Sweet & savoury Ingredients Seasonality Grown, reared, caught, processed Standard units of measurement – kg, grammes, ml, litres			<u>Key vocabulary</u> Measure Cut Join Properties & function of materials – strong, stiff, stable <i>Components</i> <i>Reinforce</i>		
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