

# Fishergate Primary School

## D&T Skill Progression



### Early Years

#### Early Learning Goals

#### Creating with Materials

Children at the expected level of development will:

- Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function;
- Share their creations, explaining the process they have used;
- Make use of props and materials when role playing characters in narratives and stories.

### Practical Skills

	Food & Nutrition	Textiles	Mechanics	Construction
<b>KS1</b>	<p>Cut, peel or grate ingredients safely and hygienically.</p> <p>Measure or weigh using Scales using non-standard units.</p> <p>Assemble or cook healthy ingredients.</p>	<p>Demonstrate a range of cutting and shaping techniques (such as tearing, cutting, folding and curling).</p> <p>Demonstrate a range of joining techniques.</p>	<p>Explore movement of simple mechanisms such as levers, sliders, wheels and axels.</p>	<p>Use sheet materials and construction tools with appropriate supervision.</p> <p>To make a structure</p> <p>To describe the materials within a structure.</p>

	<p>Understand where food comes from.</p> <p>How to name and sort foods into the five groups in The eatwell plate • that everyone should eat at least five portions of fruit and vegetables every day • how to prepare simple dishes safely and hygienically, without using a heat source</p>			<p>To measure out and mark out materials needed for a structure.</p> <p>To finish off work so it looks neat and tidy</p> <p>To screw in several screws already started using a screwdriver. • Bolts and nuts through wood</p> <p>To make a structure with moving components - hinges, turn tables, wheels etc. • To build following instructions. • To build a complex model using trickier construction toys - Knex, Technic Lego</p>
<b>LKS2</b>	<p>Measure ingredients to the nearest gram accurately.</p> <p>Follow a recipe.</p> <p>Know how to peel, cut, grate, mix, mould and begin to cook foods (using</p>	<p>Measure, mark out and cut simple forms from a variety of fabrics.</p> <p>Understand seam allowances, create simple patterns and appropriate decoration techniques.</p>	<p>Choose appropriate mechanisms for a product (such as levers, winding mechanisms, pulleys and gears.)</p> <p>how mechanical systems such as levers and linkages or pneumatic systems create movement • how simple electrical circuits and components can be used to create</p>	<p>Use sheet materials and construction tools with increased independence.</p> <p>To join materials using permanent and temporary fixings. • To add mechanical elements to my structures to make movement. • To combine a number of</p>

	<p>toasters and microwaves with supervision).</p> <p>that a healthy diet is made up from a variety and balance of different food and drink, as depicted in The eatwell plate</p>		<p>functional products • how to program a computer to control their products • how to make strong, stiff shell structures •</p> <p>=</p>	<p>components in my product. • To use simple circuits to make movement or light. • To use a vise (permanently attached to the workbench) to hold the wood in place. • To saw under high levels of supervision. • To use large nails. (comb to hold nail in place)</p>
<b>UKS2</b>	<p>Cut, mix, mould and use hobs to heat food, Developing independence with this as appropriate.</p> <p>Measure accurately and calculate ratios of ingredients to scale up or down from a recipe.</p> <p>that different food and drink contain different substances - nutrients, water and fibre - that are needed for health</p>	<p>Create objects (such as a cushion) that employ a seam allowance.</p> <p>Join textiles with a combination of stitching techniques (such as back stitch for seams and running stitch to attach decoration).</p>	<p>Understand how mechanical systems such as cams, pulleys or gears create movement.</p> <p>Using innovative combinations of electronic (or computing) and mechanics in product designs</p>	<p>Develop a range of practical skills to create products (such as cutting, drilling and screwing, nailing, gluing, filling and sanding).</p>

Design	Make	Evaluate	Technical Knowledge
<p>Think of own ideas and plan what to do next.</p> <p>Describe designs using pictures, diagrams, models, mock-ups, words and ICT.</p> <p>Design a product for myself and others, following design criteria.</p> <p>Discuss work as it progresses.</p>	<p>Measure, mark out, cut and shape materials and components assemble, join and combine materials and components</p> <p>Choose appropriate tools and equipment, describing and explaining why they are being used.</p>	<p>Talk about what changes they made during the process.</p> <p>Talk about products that already exist.</p> <p>Suggest what went well and what would be done differently to their product.</p>	<p>Work safely and hygienically.</p> <p>Join appropriately for different materials, eg glue, tape.</p> <p>Investigate strengthening sheet materials.</p> <p>Investigate joinings temporary and fixed.</p> <p>Group familiar food products.</p> <p>Measure and weigh foods using non-standard measures.</p>

LKS2			
Design	Make	Evaluate	Technical Knowledge
<p>Gather more than one idea for how to create a product.</p> <p>Gather information to</p>	<p>Select and use a range of tools and equipment with accuracy.</p> <p>Measure, mark out, join, assemble materials and</p>	<p>Evaluate the appearance and usability of own and pre-existing products.</p>	<p>Incorporate electronic circuits with a switch, bulb, , motor, buzzer into a model</p>

<p>help design a successful product (i.e. by asking others' views).</p> <p>Produce a detailed plan with labelled diagrams, a written explanation and step-by-step guide.</p> <p>Investigate similar products to the one being made, giving starting points for a design.</p> <p>Propose realistic suggestions for how they can reach their design.</p>	<p>components with accuracy.</p> <p>Use appropriate decorations techniques (glued or simple stitches)</p> <p>Create shell or frame structures, strengthening frames with diagonal struts.</p> <p>Use glue gun with close supervision.</p>	<p>Explain how the original design could be improved, considering the appearance and usability and linking this to the design brief.</p>	<p>Develop structures to strengthen products</p> <p>Understanding a balanced diet</p> <p>Work safely and hygienically</p> <p>Use computing to program monitor and control products</p>
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UKS2			
Design	Make	Evaluate	Technical Knowledge
<p>Use a range of information to inform a Design (i.e. questionnaires or web based resources).</p> <p>Produce a detailed plan, with cross-sectional</p>	<p>Join fabrics using over sewing, backstitch, blanket stitch or machine stitching.</p> <p>Join and combine food ingredients appropriately, e.g beating, rubbing.</p>	<p>Evaluate the appearance and test the function of a product (own and pre-existing) against the original criteria, saying whether it is fit for purpose.</p>	<p>Understand the seasonality of foods and where foods come from.</p> <p>Use electronic circuits to provide control of sound and light.</p>

Diagrams and computer-generated designs).  Sketch and model alternative ideas  Plan sequence of work using a storyboard Make prototypes	Create 3D textile products using pattern pieces and seam allowance.  Build framework using range of materials, e.g wood, corrugated plastic to support mechanisms.  Use glue gun with close supervision.	Suggest improvements that could be made, considering materials, methods, sustainability of the product and how much a product costs to make.  Justify their decisions about materials and methods of construction.  Understand how key events and individuals in DT have helped shape the world.	Combine electronic circuits with mechanisms to provide movement.  Control a model using ICT control programme.
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Early Years	
Expressive Arts & Design	Technical Knowledge
	<b>Cooking and nutrition:</b> Can I cut food safely? Can I describe the texture of foods? Can I wash their hands and make sure that surfaces are clean? Can I think of interesting ways of decorating food they have made, eg, cakes? Can I say what healthy foods are?

<p>Constructs with a purpose in mind, using a variety of resources.</p> <ul style="list-style-type: none"> <li>- Uses simple tools and techniques competently and appropriately.</li> <li>- Selects appropriate resources and adapts work where necessary.</li> <li>- Selects tools and techniques needed to shape, assemble and join materials they are using.</li> <li>- They use and explore a variety of materials, tools and techniques.</li> <li>- They represent their own ideas, thoughts and feelings through design and technology.</li> </ul> <p><i>Can I think of some ideas of my own?</i></p> <p><i>Can I use pictures and words to plan?</i></p> <p><i>Can I explain what I am making?</i></p> <p><i>Can I select tools and equipment to cut, shape, join and finish?</i></p> <p><i>Can I choose the right materials?</i></p>	<p>Can I say where some food comes from?</p> <p><b>Construction:</b></p> <p>Can I say how to make products stronger?</p>
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