

## SET for Success: Progression in Design and Technology

### EYFS: Early Learning Goals

Managing self	Fine Motor Skills	Creating with materials
Be confident to try new activities and show independence, resilience and perseverance in the face of challenge. Understanding the importance of healthy food choices.	Use a range of small tools, including scissors, paint brushes and cutlery. Begin to show accuracy and care when drawing.	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.

### Design

KS1	LKS2	UKS2
National Curriculum: 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	National Curriculum: 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.	
Design appealing products for a particular user based on simple design criteria.	Use annotated sketches, prototypes, final product sketches and pattern pieces; communication	Generate innovative ideas through research including surveys, interviews and questionnaires and discussion with peers to develop a design brief and criteria for a

<p>Generate ideas based on simple design criteria and their own experiences, explaining what they could make.</p> <p>Develop and communicate these ideas through talk, drawings and mock ups.</p>	<p>technology, such as web-based recipes, to develop and communicate ideas.</p> <p>Generate and clarify ideas through discussion with peers to develop design criteria to inform the design of products that are fit for purpose, aimed at themselves, particular individuals or groups.</p> <p>Generate, develop, model and communicate realistic ideas through discussion and, as appropriate, annotated sketches, cross-sectional and exploded diagrams.</p>	<p>design specification, for a range of functional products.</p> <p>Design purposeful, functional, appealing products for the intended user that are fit for purpose based on a simple design specification.</p> <p>Develop and communicate ideas through discussion, annotated drawings, exploded drawings and drawings from different views. and, where appropriate, computer-aided design.</p> <p>Communicate ideas through pictorial representations of electrical circuits or circuit diagrams.</p>
<b>Make</b>		
<b>KS1</b>	<b>LKS2</b>	<b>UKS2</b>
<p>Select and use simple utensils, tools and equipment to perform a job e.g., peel, cut, slice, squeeze, grate and chop safely; marking out, cutting, joining and finishing;</p> <p>cut, shape and join paper and card.</p> <p>Select from a range of ingredients and materials according to their characteristics to create a chosen product.</p> <p>Plan by suggesting what to do next.</p> <p>Select and use tools, equipment, skills and techniques to perform practical tasks, explaining their choices.</p> <p>Select new and materials, components, reclaimed materials and construction kits to build and create their products.</p> <p>Use simple finishing techniques suitable for the products they are creating</p>	<p>Plan the main stages of making.</p> <p>Select from and use a range of appropriate utensils, tools and equipment with some accuracy related to their product.</p> <p>Order the main stages of making.</p> <p>Select and use appropriate tools to measure, mark out, cut, score, shape and combine with some accuracy related to their products.</p> <p>Explain their choice of materials according to functional properties and aesthetic qualities.</p> <p>Select from and use materials and components, including ingredients, construction and electrical components.</p> <p>Select from and use finishing techniques suitable for the product they are creating.</p>	<p>Produce detailed lists of equipment and fabrics relevant to their tasks.</p> <p>Formulate a step-by-step plan to guide making, listing tools, equipment, materials and components.</p> <p>Competently select from and use appropriate utensils, tools and equipment to accurately measure, combine, mark, cut and assemble materials, and securely connect electrical components to produce reliable, functional products.</p> <p>Use finishing and decorative techniques suitable for the product they are designing and making.</p>

## Evaluate

KS1	LKS2	UKS2
<p>Taste, explore and evaluate a range of products to determine the intended user's preferences for the product.</p> <p>Explore a range of existing products related to their design criteria.</p> <p>Evaluate their ideas throughout and finished products against design criteria, including intended user and purpose.</p>	<p>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.</p> <p>Understand how key events and individuals in design and technology have helped shape the world.</p> <p>Investigate a range of 3-D textile products, ingredients and lever and linkage products, materials, components and techniques that are used.</p> <p>Test their product against the original design criteria and with the intended user.</p> <p>Evaluate the ongoing work and the final product with reference to the design criteria and the views of others.</p> <p>Test and evaluate their own products against design Criteria, the intended user and purpose and identify the strengths and areas for improvement in their work.</p>	<p>Investigate and analyse products linked to their final product.</p> <p>Compare the final product to the original design specification and record the evaluations.</p> <p>Test products with intended user and critically evaluate the quality of the design, manufacture, functionality and fitness for purpose, identifying strengths and areas for development.</p> <p>Consider the views of others to improve their work.</p> <p>Continually evaluate and modify the working features of the product to match the initial design specification.</p>

## Mechanical and Electrical Systems

KS1	EoKS 1 Expectations	LKS2	UKS2	EoKS 2 Expectations
<p>Explore and use sliders and levers.</p> <p>Understand that different mechanisms produce different types of movement.</p> <p>Know and use technical vocabulary relevant to the project.</p> <p>Explore and use wheels, axles and axle holders.</p> <p>Distinguish between fixed</p>	<p>Explore and use mechanisms, for example, levers, sliders, wheels and axles, in their products.</p> <p>Select from and use a wide range of components according to their characteristics.</p>	<p>Understand and use lever and linkage mechanisms.</p> <p>Distinguish between fixed and loose pivots. Know and use technical vocabulary relevant to the project.</p>	<p>Understand that mechanical and electrical systems have an input, process and an output.</p> <p>Understand how gears and pulleys can be used to speed up, slow down or change the direction of movement. Know and use technical vocabulary relevant to the project.</p>	<p>Understand and use mechanical systems in their products, for example, gears, pulleys, cams, levers and linkages.</p> <p>☑ understand and use electrical systems in their products, for example, series circuits incorporating switches, bulbs, buzzers and motors.</p>

and freely moving axles. Know and use technical vocabulary relevant to the project.				Apply their understanding of computing to program, monitor and control their products.
<b>Structures</b>				
<b>KS1</b>	<b>EoKS 1 Expectations</b>	<b>LKS2</b>	<b>UKS2</b>	<b>EoKS 2 Expectations</b>
Know how to make freestanding structures stronger, stiffer and more stable. Know and use technical vocabulary relevant to the project.	Build structures, exploring how they can be made stronger, stiffer and more stable. Select from and use a range of tools and equipment to perform practical tasks, for example, cutting, shaping, joining and finishing. Select from and use a wide range of materials according to their characteristics.	Develop and use knowledge of how to construct strong, stiff shell structures. Develop and use knowledge of nets of cubes and cuboids and, where appropriate, more complex 3D shapes. Know and use technical vocabulary relevant to the project.	Understand how to strengthen, stiffen and reinforce 3-D frameworks. Know and use technical vocabulary relevant to the project.	Apply their understanding of how to strengthen, stiffen and reinforce more complex structures
<b>Structures</b>				
<b>KS1</b>	<b>EoKS 1 Expectations</b>	<b>LKS2</b>	<b>UKS2</b>	<b>EoKS 2 Expectations</b>
Understand where a range of fruit and vegetables come from e.g., farmed or grown at home. Understand and use basic principles of a healthy and varied diet to prepare dishes, including how fruit and vegetables are part of The 'eatwell' plate. Know and use technical and	Select from and use a wide range of ingredients, according to their characteristics. Use the basic principles of a healthy and varied diet to prepare dishes. Understand where food comes from.	Know how to use appropriate equipment and utensils to prepare and combine food. Know about a range of fresh and processed ingredients appropriate for their product, and whether they are grown, reared or caught. Know and use relevant technical and sensory vocabulary appropriately.	Know how to use utensils and equipment including heat sources to prepare and cook food. Understand about seasonality in relation to food products and the source of different food products. Know and use relevant technical and sensory vocabulary.	Understand and apply the principles of a healthy and varied diet.

sensory vocabulary relevant to the project.				
<b>Textiles</b>				
<b>KS1</b>	<b>EoKS 1 Expectations</b>	<b>LKS2</b>	<b>UKS2</b>	<b>EoKS 2 Expectations</b>
<p>Understand how simple 3-D textile products are made, using a template to create two identical shapes.</p> <p>Understand how to join fabrics using different techniques e.g., running stitch, glue, over stitch.</p> <p>Explore different finishing techniques.</p> <p>Know and use technical vocabulary relevant to the project.</p>	<p>Select from and use a wide range of textiles materials according to their characteristics.</p>	<p>Know how to strengthen, stiffen and reinforce existing fabrics.</p> <p>Understand how to securely join two pieces of fabric together.</p> <p>Understand the need for patterns and seam allowances.</p> <p>Know and use technical vocabulary relevant to the project.</p>	<p>Produce a 3-D textile product from a combination of accurately made pattern pieces, fabric shapes and different fabrics.</p> <p>Understand how fabrics can be strengthened, stiffened and reinforced where appropriate.</p> <p>Know and use technical vocabulary relevant to the project.</p>	<p>Prepare and cook a variety of predominantly savoury dishes using a range of cooking Techniques.</p> <p>Understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed.</p>