

Progression of Knowledge, Skills and Understanding in Design and Technology



Cooking and Nutrition	Structures and Mechanisms	Textiles
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Year Groups	Contexts	Knowledge and Skills
Reception	Create faces using natural materials, make fruit kebabs, clay diva lamps, potato latkes, Christmas crafts- cards/tags, salt dough decorations, Junk model animals, bird feeders, explore printing, junk model vehicles, clay snails, weaving, painting and colour mixing and sandwiches	<ul style="list-style-type: none"> Understand that media can be combined to create new effects. Construct with a purpose in mind, using a variety of resources. Use simple tools and techniques competently and appropriately. Select appropriate resources and adapts work where necessary. Selects tool and techniques needed to shape, assemble and join materials they are using. Children safely use and explore a variety of materials, tools and techniques, experimenting with design, form and function. Create simple representations of objects. Children use what they have learnt about media and materials in original ways, thinking about uses and purposes. <p><u>DESIGN AND DEVELOP</u></p> <ul style="list-style-type: none"> Talk about what they want to make. <p><u>MAKING</u></p> <ul style="list-style-type: none"> Use a variety of tools and materials to make models. <p><u>PRODUCT AND EVALUATION</u></p> <ul style="list-style-type: none"> Be excited about what they have made
Year 1	Fruit salads and fruity drinks.	<ul style="list-style-type: none"> Design purposeful, functional, appealing products based on design criteria; Generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and ICT and, where appropriate, information and communication technology.
	Moving pictures	<p><u>MAKE</u></p> <ul style="list-style-type: none"> 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 and components, including construction materials, textiles, ingredients according to their characteristics.
Year 2	Stick and loom weaving	<p><u>EVALUATE</u></p> <ul style="list-style-type: none"> Explore and evaluate a range of existing products; • Evaluate ideas and products against design criteria.
	Jam tarts	<p><u>TECHNICAL KNOWLEDGE</u></p> <ul style="list-style-type: none"> Build structures, exploring how they can be made stronger, stiffer and more stable; Explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products.
	Winding toys	<p><u>COOKING AND NUTRITION</u></p> <ul style="list-style-type: none"> use the basic principles of a healthy and varied diet to prepare dishes; understand where food comes from.
	Windsocks	

Year Groups	Contexts	Knowledge and Skills
Year 3	Salads and sandwiches	Use research and develop criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups; <ul style="list-style-type: none"> • Generate, develop, model and communicate ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design. <u>MAKE</u>
	Photoframes	<ul style="list-style-type: none"> • Select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately; • Select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities. <u>EVALUATE</u>
	Textile bookmarks	<ul style="list-style-type: none"> • Investigate and analyse a range of existing products; • Evaluate ideas and products against their own design criteria and consider the views of others to improve their work; • Understand how key events and individuals have helped shape the world. <u>TECHNICAL</u>
Year 4	Indian samosa	<ul style="list-style-type: none"> • Cooking – design and make pastries and breads • Prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques. • Select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately. • Apply their understanding of how to strengthen, stiffen and reinforce more complex structures. • Learn and apply a range of stitches including running, back, cross and sewing on a button. • Use levers and linkages. • Understand and use mechanical systems in their products. • Apply their understanding of how to strengthen, stiffen and reinforce more complex structures; • Understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages]; • Understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors];
	Electrical torches	<ul style="list-style-type: none"> • Understand and use mechanical systems in their products. • Apply their understanding of how to strengthen, stiffen and reinforce more complex structures; • Understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages]; • Understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors];
	3D textile Christmas decorations	<u>COOKING AND NUTRITION</u> <ul style="list-style-type: none"> • Understand and apply the principles of a healthy and varied diet; • Prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques; • Understand seasonality and know where and how a variety of ingredients are grown, reared, caught and processed.
Year 5	Traditional British dishes	Year 5 and 6 D&T is considerably more demanding as children build on the knowledge and skills gained earlier in the school and apply them to increasingly complex projects. This includes:
	Cam toys	<u>Textiles:</u> Children will mainly use the sewing machine for joining and plan projects in advance using paper patterns.
	Tote beach bags	Projects may also involve a combination of fabrics e.g. a patterned pocket on the jute beach bag.
Year 6	Bread	<u>Mechanisms:</u> Projects involve complex moving parts such as cams and electrical motors connected to pulleys (elements of control may also be included).
	Fairground rides	<u>Cooking:</u> Dishes are more complicated involved multiple parts e.g baking breads to accompany meals.
	Cushions	

DESIGN TECHNOLOGY: VOCABULARY MAP								
	Design and Develop	Making			Product	Evaluation		
EYFS	<ul style="list-style-type: none"> Plan Draw Ideas Design 	<ul style="list-style-type: none"> Make Build Combine 	<ul style="list-style-type: none"> Join Shape Tools 	<ul style="list-style-type: none"> Complete Product Final 	<ul style="list-style-type: none"> Change Like Dislike Next time 	<ul style="list-style-type: none"> Better Worse Different Instead 		
DESIGN TECHNOLOGY: VOCABULARY MAP								
	Design	Technical Knowledge & Making			Cooking and Nutrition	Evaluate		
KS1	<ul style="list-style-type: none"> Plan Prepare Design Materials Ideas Use Model Development Market Research Survey Template 	<ul style="list-style-type: none"> Fast Slow Faster Slower Up Down Turn Wind up Design Draw Sketch Tools 	<ul style="list-style-type: none"> Fix Glue Attach Feature Brick Wood Stone Cloth Metal Foam Felt Paper 	<ul style="list-style-type: none"> Tissue Newspaper Cardboard String Wool Clay Scissors Glue Tape Cut Stick Decorate 	<ul style="list-style-type: none"> Healthy Unhealthy Source Fruit Vegetables Clean Safe Dirty 	<ul style="list-style-type: none"> Unsafe Amount Ingredients Recipe Weight Nutrients Vegetarian Dietary requirements 	<ul style="list-style-type: none"> Change Improve Prefer Useful Unsuccessful Future Progress modify 	<ul style="list-style-type: none"> Alter Adapt Original Finished article Evaluate Graphics
KS2	<ul style="list-style-type: none"> Plan Organise Prototype Initial ideas Criteria Diagrams Labels Annotate Brief 	<ul style="list-style-type: none"> Product Consumer Customer Target audience Purpose Application Constraints Client 	<ul style="list-style-type: none"> Materials Mould Liquid Solid Form Shape Adhesive Lattice 	<ul style="list-style-type: none"> Mass-produce Hand-made Packaging Presentation Machine made Dimensions Durable 	<ul style="list-style-type: none"> Healthy Unhealthy Balanced Vitamins Disease Nutrition Healthy eating Hygiene Diet 	<ul style="list-style-type: none"> Cross contamination Grams Storage Presentation Taste Texture Flavour Disinfect Bacteria 	<ul style="list-style-type: none"> Assess Edit Improve Alter Outcome Develop Test Analyse 	<ul style="list-style-type: none"> Effective Fit for purpose Design criteria Alternatives Models Quality Function Functionality