

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	Teacher led projects, child-initiated activities and continuous provision based on a wide range of contexts. Children also join in with Year 1 and 2 projects which are on a 3 years cycle to avoid repetition.	<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
Yrs 1 and 2	<p>Making a toastie</p> <p>Hot cross buns</p> <p>Layered dessert</p> <p>Tudor houses</p> <p>Moving picture</p> <p>Towers with winch</p> <p>Printed bunting</p> <p>Patterned windsock</p> <p>Stick/fish loom weave</p>	<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. <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. <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. <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. <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.

Year Groups	Contexts	Knowledge and Skills
Yrs 3 and 4	Jam tarts	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>
	Boxed chocolates	<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>
	Torch	<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>
	Pop-up book	<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.
	Cushion	<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];
	Phone cosy	<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.
Yrs 5 and 6	Chinese meal	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: <u>Textiles:</u> Children will mainly use the sewing machine for joining and plan projects in advance using paper patterns. Projects may also involve a combination of fabrics e.g. a patterned pocket on the jute beach bag. <u>Mechanisms:</u> Projects involve complex moving parts such as cams and electrical motors connected to pulleys (elements of control may also be included). <u>Cooking:</u> Dishes are more complicated involved multiple parts e.g baking breads to accompany meals.
	Fresh pita and dips	
	Cam toy	
	Fairground ride	
	Beach bag	
	Stuffed toy	