

D&T Skills Progression Map



Skills	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Design	<ul style="list-style-type: none"> * Thinking of ideas * Communicate ideas through talk and drawings. * They represent their own ideas, thoughts and feelings through design and technology. 	<ul style="list-style-type: none"> * Design appealing products for a particular user based on simple design criteria. * Generate initial ideas and design criteria through own experiences. * Develop and communicate these ideas through talk and drawings. 	<ul style="list-style-type: none"> * Generate ideas based on simple design criteria and their own experiences, explaining what they could make. * Develop, model and communicate their ideas through talking, mock-ups and drawings. 	<ul style="list-style-type: none"> * Generate realistic ideas through discussion and design criteria for an appealing, functional product fit for purpose and specific user/s. * Use annotated sketches, prototypes, final product sketches and pattern pieces; communication technology, such as web-based recipes, to develop and communicate ideas. 	<ul style="list-style-type: none"> * 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 particular individuals or groups. * Use annotated sketches and appropriate information and communication technology, such as web-based recipes, to develop and communicate ideas. * Generate, develop, model and communicate realistic ideas through discussion and, as appropriate, annotated 	<ul style="list-style-type: none"> * Generate innovative ideas through research including surveys, interviews and questionnaires and discussion with peers to develop a design brief and criteria for a design specification. * Design purposeful, functional, appealing products for the intended user that are fit for purpose based on a simple design specification. * Develop and communicate ideas through discussion, annotated drawings, exploded drawings and drawings from different views. and, where appropriate, computer-aided 	<ul style="list-style-type: none"> * Use research using surveys, interviews, questionnaires and web-based resources. to develop a design specification for a range of functional products. * Develop a simple design specification to guide the development of their ideas and products, taking account of constraints including time, resources and cost. * Generate and develop innovative ideas and share and clarify these through discussion. * Communicate ideas through annotated sketches, pictorial representations of

					sketches, cross-sectional and exploded diagrams.	design	electrical circuits or circuit diagrams.
Make	<ul style="list-style-type: none"> *Experience of using basic tools e.g. scissors or hole punches with construction materials e.g. plastic, card. *Choose the resources they need for their chosen activities. *Handle equipment and tools effectively. *They safely use and explore a variety of materials, tools and technique, experimenting with colour, design, texture, form and function. * Find ways to solve problems / find new ways to do things / test their ideas * Changing strategy as needed 	<ul style="list-style-type: none"> *Select and use tools, to cut, shape and join paper and card. * Select from materials and construction kits to build and create their products. *Select and use simple utensils, tools and equipment to perform a job e.g. peel, cut, slice, squeeze, grate and chop safely. *Select from a range of ingredients and materials according to their characteristics. *Use simple finishing techniques 	<ul style="list-style-type: none"> * Plan by suggesting what to do next. * Select from and use a range of tools and equipment to perform practical tasks such as marking out, cutting, joining and finishing, explaining their choices. *Select and use simple utensils, tools and equipment to perform a job e.g. peel, cut, slice, squeeze, grate and chop safely. * Use simple finishing techniques suitable for the products they are creating. 	<ul style="list-style-type: none"> * Plan the main stages of making. * Select from and use a range of appropriate utensils, tools and equipment with some accuracy related to their product. * Select from and use finishing techniques suitable for the product they are creating. 	<ul style="list-style-type: none"> * Order the main stages of making. * Select and use appropriate tools to measure, mark out, cut, score, shape and combine with some accuracy related to their products. * Explain their choice of materials according to functional properties and aesthetic qualities. * Select from and use materials and components, including ingredients, construction and electrical components according to their function and properties. 	<ul style="list-style-type: none"> * Produce detailed lists of equipment and fabrics relevant to their tasks . * Write a step-by-step plan, including a list of resources required. * Select from and use, a range of appropriate utensils, tools and equipment accurately to measure and combine ingredients, materials and resources. 	<ul style="list-style-type: none"> * Formulate a step-by-step plan to guide making, listing tools, equipment, materials and components. * Competently select from and use appropriate tools to accurately measure, mark, cut and assemble materials, and securely connect electrical components to produce reliable, functional products. * Use finishing and decorative techniques suitable for the product they are designing and making.

Evaluate	<ul style="list-style-type: none"> * Use senses to explore the world around them * Children use what they have learnt about media and materials in original ways, thinking about uses and purposes * Review how well the approach worked 	<ul style="list-style-type: none"> * Taste, explore and evaluate a range of products to determine the intended user's preferences. * Evaluate their product by discussing how well it works in relation to the purpose and the users and whether it meets design criteria 	<ul style="list-style-type: none"> * Explore a range of existing products related to their design criteria. * Taste, explore and evaluate a range of products to determine the intended user's preferences. * Evaluate their product by discussing how well it works in relation to the purpose, the user and whether it meets the original design criteria. 	<ul style="list-style-type: none"> * Investigate a range of 3-D textile products, ingredients and lever and linkage products relevant to their project. * Test their product against the original design criteria and with the intended user. * Evaluate the ongoing work and the final product with reference to the design criteria and the views of others. 	<ul style="list-style-type: none"> * Investigate and evaluate a range of products including the ingredients, materials, components and techniques that are used. * Test and evaluate their own products against design criteria and the intended user and purpose. * Evaluate their ideas and products against their own design criteria and identify the strengths and areas for improvement in their work. 	<ul style="list-style-type: none"> * Investigate and analyse products linked to their final product. * Compare the final product to the original design specification and record the evaluations. * Test products with intended user and critically evaluate the quality of the design, manufacture, functionality and fitness for purpose. * Consider the views of others to improve their work 	<ul style="list-style-type: none"> * Continually evaluate and modify the working features of the product to match the initial design specification. * Critically evaluate their products against their design specification, intended user and purpose, identifying strengths and areas for development, and carrying out appropriate tests. * Test the system to demonstrate its effectiveness for the intended user and purpose.
Technical Knowledge	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Structures	<ul style="list-style-type: none"> * Experience of using construction kits to build walls, towers and 	<ul style="list-style-type: none"> * Know how to make freestanding structures stronger, stiffer and more 		<ul style="list-style-type: none"> * Develop and use knowledge of how to construct strong, stiff shell 	<ul style="list-style-type: none"> * <i>Develop and use knowledge of nets of cubes and cuboids and where</i> 	<ul style="list-style-type: none"> * Understand how to strengthen, stiffen and reinforce 3-D 	

	frameworks. *experience of different methods of joining card and paper.	stable. *Know and use technical vocabulary relevant to the project.		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.	<i>appropriate, more complex 3D shapes</i> <i>*Develop and use knowledge of how to construct 3D shapes.</i> <i>*Know and use technical vocabulary relevant to the project.</i>	frameworks. * Know and use technical vocabulary relevant to the project.	
Mechanisms / Mechanical systems	*Early experiences of working with paper and card to make simple flaps and hinges. *Experience of simple cutting, shaping and joining skills using scissor, glue, paper fasteners and masking tape.	* explore and use sliders and levers. * understand that different mechanisms produce different types of movement. * know and use technical vocabulary relevant to the project.	*use levers or slides *begin to understand how to use wheels and axles	* Understand and use lever and linkage mechanisms. * Distinguish between fixed and loose pivots. * Know and use technical vocabulary relevant to the project.	* Understand and use pneumatic mechanisms. * Know and use technical vocabulary relevant to the project.		* Understand that mechanical and electrical systems have an input, process and an output. * 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.
Textiles	*Explore and used different fabrics		* understand how simple 3-D textile		* Know how to strengthen, stiffen	* <i>Produce a 3-D textile product</i>	* Produce a 3-D textile product

	<ul style="list-style-type: none"> * cut and join fabrics with simple techniques 		<p>products are made, using a template to create two identical shapes.</p> <ul style="list-style-type: none"> * understand how to join fabrics using different techniques e.g. running stitch, glue, over stitch, stapling. * explore different finishing techniques * know and use technical vocabulary relevant to the project. 		<p>and reinforce existing fabrics.</p> <ul style="list-style-type: none"> * Understand how to securely join two pieces of fabric together. * Understand the need for patterns and seam allowances. * Know and use technical vocabulary relevant to the project. 	<p><i>from a combination of accurately made pattern pieces, fabric shapes and different fabrics.</i></p> <ul style="list-style-type: none"> * <i>Understand how fabrics can be strengthened, stiffened and reinforced where appropriate.</i> * <i>Know and use technical vocabulary relevant to the project.</i> 	<p>from a combination of accurately made pattern pieces, fabric shapes and different fabrics.</p> <ul style="list-style-type: none"> * Understand how fabrics can be strengthened, stiffened and reinforced where appropriate. * Know and use technical vocabulary relevant to the project.
Food and Nutrition	<ul style="list-style-type: none"> * experience of common fruit and vegetables, undertaking sensory activities i.e. appearance taste and smell. * experience of cutting soft fruit and vegetables using appropriate utensils. 	<ul style="list-style-type: none"> * 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. 	<ul style="list-style-type: none"> * 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. 	<ul style="list-style-type: none"> * 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 	<ul style="list-style-type: none"> * <i>Know how to use appropriate equipment and utensils to prepare and combine food.</i> * <i>Know about a range of fresh and processed ingredients appropriate for their product, and whether they are grown, reared or caught.</i> * <i>Know and use</i> 	<ul style="list-style-type: none"> * 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 	<ul style="list-style-type: none"> * <i>Know how to use utensils and equipment including heat sources to prepare and cook food.</i> * <i>Understand about seasonality in relation to food products and the source of different food products.</i> * <i>Know and use relevant technical and sensory</i>

		* know and use technical and sensory vocabulary relevant to the project.	* know and use technical and sensory vocabulary relevant to the project.	relevant technical and sensory vocabulary appropriately.	<i>relevant technical and sensory vocabulary appropriately.</i>	vocabulary.	<i>vocabulary.</i>
Electrical Systems					* Understand and use electrical systems in their products such as series circuits incorporating switches, bulbs and buzzers. * Know and use technical vocabulary relevant to the project.	<i>*Understand and use computing to program and control products containing electrical systems, such as series circuits incorporating switches, bulbs and buzzers. * Know and use technical vocabulary relevant to the project.</i>	* Understand and use electrical systems. * Apply their understanding of computing to program, monitor and control their products. * Understand the use of computer control systems in products. * Know and use technical vocabulary relevant to the project.