

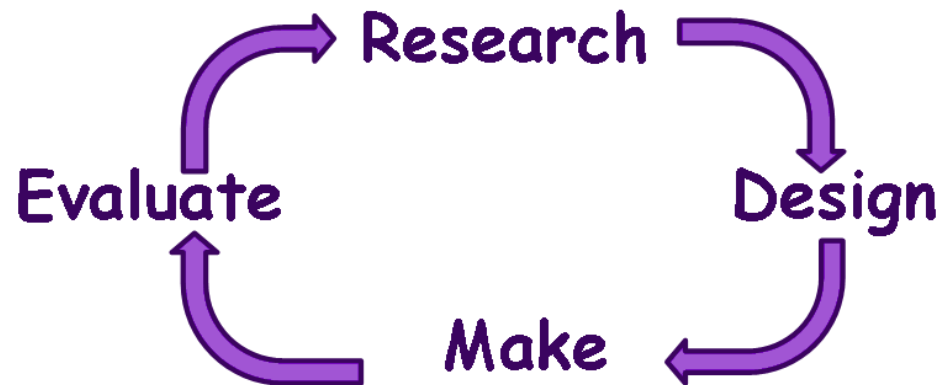


Design and Technology at Crossley Hall Primary School

Each year group will cover:

- Cooking and nutrition
 - Textiles
- Mechanisms/ structures/ electrical components

4 stage DT process must be evident in all units:



Focus

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 1	Cooking and Nutrition				Mechanisms Wheels and Axles	Structures
Year 2	Cooking and Nutrition				Mechanisms Sliders & Levers	Textiles Templates & Joining
Year 3	Cooking and Nutrition				Wheels and Axles	Textiles – (Designer Study - Vivienne Westwood)
Year 4	Structures				Cooking and Nutrition	Electrical Systems
Year 5	Cooking and Nutrition				Electrical Systems	Textiles Combining different fabric shapes
Year 6	Structures and Frames				Cooking and Nutrition	Mechanical Systems –pulleys/gears (Designer Study - Isambard Kingdom Brunel)

Projects						
	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 1	Cooking and Nutrition – Fruit Salads/Smoothies (exotic fruits)				Mechanisms Wheels and Axles (Designer Study – Alec Issigonis) Make a form of transport (bus)	Structures – Making a money box
Year 2	Cooking and Nutrition – Healthy Lunch Box				Mechanisms Sliders & Levers – Slider city scene (Designer Study)	Textiles Templates & Joining- Badges
Year 3	Cooking and Nutrition- Seasonal food-Fruit crumble/ Rainbow Tart				Mechanisms (Wheels and Axles) Moving Vehicle	Textiles – (Designer Study) Vivienne Westwood T-shirts with pockets
Year 4	Structures Pavilions				Cooking and Nutrition – Viking Bread/ saxon recipe	Electrical Systems – Light up Viking Long Boat with motor
Year 5	Cooking and Nutrition – Healthy Spaghetti Bolognese				Textiles combining different fabric shapes/ weaving - clothing	Electrical Systems 3D Light up/ moving factory
Year 6	Structures and Frames Playgrounds				Cooking and Nutrition War Time Recipes Vegetable Turnovers	Mechanical Systems –pulleys/gears (Designer Study - Isambard Kingdom Brunel)

<p>Year 1 Objective Coverage</p>	<p>Explain how to keep safe during a practical task. Identify the main food groups, including fruit and vegetables. Identify the source for common foods. Measure and weigh food items using non-standard measures (e.g. spoons and cups). Select and explain why they have chosen a particular tool for a task.</p>				<p>Describe how an existing product works (e.g. "the toy moves when I turn the handle"). Use wheels, axles, levers and sliders. Describe others' work including work by professional craftspeople and designers and say what they like and dislike about it. Select and explain their choice of materials, sometimes with help.</p>	<p>Cut accurately and safely with scissors. Draw a simple picture of an intended design with basic labelling. Talk about their own and others' work identifying strengths or weaknesses. With help, put ideas into practice. Join appropriately, using glue or tape. Build simple structures. Explain how they would fix simple products. With help, put ideas into practice.</p>
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<p>Year 2 Objective Coverage</p>	<p>Work safely and hygienically in construction and cooking activities. Identify the main food groups, including fruit and vegetables. Explain where the food they eat comes from (e.g. by referring to countries, counties, animals and plants). Cut, peel, grate and chop a range of ingredients to make dishes Think of ideas and plan what to do next, based on their experiences of working with materials and components.</p>				<p>Create simple hinges and pop-ups using cards. Investigate a range of existing products and say if they do what they are supposed to do Describe why a design, building or designer is important. Create and use wheels and axles, levers and sliders. Describe similarities and differences between own and others' work including work by professional craftspeople and designers Improve structures by making them stronger, stiffer and more stable.</p>	<p>Produce detailed, labelled drawings or models of products based on design criteria. Explain how finished products meet their design criteria and say what they could do better in the future. Choose appropriate materials and suggest ways of manipulating them to achieve a desired effect. Cut, measure, form and shape materials to fix or repair something, explaining objectives. Join fabrics using running stitch, glue, staples, oversewing and tape. Use tools safely for cutting and joining materials and components.</p>
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<p>Year 3 Objective Coverage</p>	<p>Share ideas through words, labelled sketches and models, recognising that designs have met a range of needs, including being fit for purpose.</p> <p>Investigate the design features (including identifying components or ingredients) of familiar existing products.</p> <p>Follow health and safety rules for cooking and baking activities.</p> <p>Describe what a balanced diet is.</p> <p>Identify food which comes from the UK and other countries in the world.</p> <p>Combine a variety of ingredients using a range of cooking techniques.</p>				<p>Plan which materials will be needed for a task and explain why.</p> <p>Create and use wheels and axles, levers and sliders.</p> <p>Select the appropriate tools and explain choices.</p> <p>Make realistic plans, identifying processes, equipment and materials needed.</p>	<p>Suggest improvements to products that describe how to implement them (taking the views of others into account).</p> <p>Explain the impact of a design or designer on design history and how this helped to shape the world.</p> <p>Join fabrics using a running stitch.</p> <p>Create a simple pattern for a design.</p>
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<p>Year 4 Objective Coverage</p>	<p>Collect information from a number of different sources and use this information to inform design ideas in words, labelled sketches, diagrams and models, keeping in mind fitness for purpose and the end user.</p> <p>Identify what has worked well and what could be improved, evidencing the results of research.</p> <p>Choose from a range of materials showing an understanding of their different characteristics.</p> <p>Analyse the potential of a range of tools and use them with accuracy.</p>				<p>Follow health and safety rules when working with materials and different substances.</p> <p>Make healthy eating choices and explain why.</p> <p>Explain some of the processes that foods go through to preserve/ make them more appealing.</p> <p>Measure and weigh ingredients appropriately to prepare and cook a range of savoury dishes.</p> <p>Make realistic, step by step plans, reflecting on designs as the product develops.</p>	<p>Cut internal shapes.</p> <p>Build models incorporating motors.</p> <p>Explain how an existing product is useful to the user.</p> <p>Use a glue gun with close supervision. (one to one)</p> <p>Describe how a product can be made better, stronger and more sustainable.</p> <p>Prototype and build frame and shell structures, showing awareness of how to strengthen, stiffen and reinforce.</p>
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<p>Year 5 Objective Coverage</p>	<p>Investigate the design features (including identifying components or ingredients) of a familiar existing product in the context of the culture or society in which it was designed or made.</p> <p>Evaluate meals and consider if they contribute towards a balanced diet.</p> <p>Explain what times of year particular foods are in season.</p> <p>Combine food ingredients appropriately (e.g. kneading, rubbing in and mixing).</p> <p>Name and select appropriate tools for a task and use them with precision.</p>				<p>Combine materials with temporary or fixed joints.</p> <p>Cut safely and accurately to a marked line.</p> <p>Build models, incorporating switches to turn on and off</p> <p>Test and evaluate products against a detailed design specification and make adaptations as they develop the product.</p> <p>Select and name appropriate tools for specific jobs and demonstrate how to use them safely.</p> <p>Select and combine materials with precision.</p> <p>Build a framework using a range of materials (e.g. wood, card and corrugated plastic) to support mechanisms. awareness of how to strengthen, stiffen and reinforce.</p> <p>Work from your own detailed plans, modifying them where appropriate.</p>	<p>Use various sources of information, clarifying/ sharing ideas through discussion, labelled sketches, cross-sectional diagrams and modelling, recognising that ideas have to meet a range of needs. Create a timeline to sequence the development of a design over time and describe how technology has influenced it.</p> <p>Use a glue gun with close supervision.</p> <p>Research the work done by textile artists and say what they like about a piece, identifying the techniques and materials used in creating it and the aesthetic value.</p> <p>Create 3D products using a range of materials and sewing techniques.</p>
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<p>Year 6 Objective Coverage</p>	<p>Use a craft knife, cutting mat and safety ruler with one to one supervision if needed.</p> <p>Combine materials with moving joints.</p> <p>Demonstrate modifications made to a product, as a result of on-going evaluation, by themselves and others.</p> <p>Demonstrate how their products take into account the safety of the user.</p> <p>Join materials, using the most appropriate method for the material or purpose.</p> <p>Choose the best materials for a task, showing and understanding of their working characteristics.</p> <p>Select the most appropriate materials and frameworks for different structures, explaining what makes them strong.</p>				<p>Plan how they can have a healthy/ affordable diet.</p> <p>Explain how ingredients were grown, reared, caught and processed.</p> <p>Use appropriate tools and equipment, weighing and measuring with scales.</p> <p>Check work as it develops and modify their approach in the light of progress.</p>	<p>Develop detailed criteria for designs for products aimed at particular individuals or groups, sharing ideas through cross-sectional and exploded diagrams, prototypes and pattern pieces.</p> <p>Explain the form and function of familiar existing products.</p> <p>Describe how an individual in the field of design and technology has helped shape the world.</p> <p>Select the most appropriate mechanical system for a particular purpose.</p> <p>Research cultural traditions and evidence their influence in their own work.</p> <p>Use more complex tools with increasing accuracy.</p>
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