

Crockerne Church of England Primary

Non-Negotiables



Crockerne C of E Primary School

Key Skills

Develop creative, technical and practical expertise to problem solve.
Design and make high quality prototypes and products for a range of users.
Critique, evaluate and test ideas and products.

*DT skills should be taught when linked to projects
where possible to ensure real world application*

DT

	Nursery	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Design	<p>Begin to draw a design of their own</p> <p>Use materials to create a picture of their design</p> <p>Talk about what they are doing during each stage</p>	<p>Use criteria to design and make purposeful, functional items</p> <p>Make pictures of their design saying what they want to make</p> <p>Create a prototype and critique and redraft product</p>	<p>Design and make purposeful and functional products.</p> <p>Use pictures and words to convey what they want to design and make.</p> <p>Describe and explain what they are making, how it works and what they need to do next.</p>	<p>Design and make purposeful, functional and appealing products.</p> <p>Use drawings with notes to record ideas as they are developed.</p> <p>Discuss their work as it progresses.</p>	<p>Use research to develop the design of functional and appealing products.</p> <p>Record plan by drawing labeled sketches or writing and discuss this while working.</p>	<p>Use research and develop design criteria to design functional and appealing products that are fit for purpose.</p> <p>Consider different ways in which they can creatively record their planning to engage an audience.</p> <p>Understand and apply the principles of a healthy and varied diet.</p>	<p>Use research and develop design criteria to design innovative, functional and appealing products that are fit for purpose and aimed at particular groups or individuals.</p> <p>Develop and communicate design ideas using annotated sketches, detailed plans, oral and digital presentations.</p>	<p>Use research and exploration to identify and understand user needs when designing a product.</p> <p>Develop and communicate design ideas using annotated sketches, detailed plans, oral and digital presentations and computer based tools.</p>
Make	<p>Use and explore a variety of materials.</p> <p>Use a variety of tools and techniques.</p>	<p>Use the correct tools for the job, including tools for cooking.</p> <p>Know the tools they are using</p>	<p>Name the tools you are using.</p> <p>Use given tools for a variety of tasks e.g. Knife, grater, chopping board, scissors, needles,</p>	<p>Select and name the tools needed to work the materials. E.g. spoons, cups, needles, yarn, scissors, saws, drills.</p>	<p>Think ahead about the order of their work and plan tools and materials needed. E.g. Weighing scales, glue gun, ruler.</p>	<p>Use tools and equipment, including those needed to weigh and measure ingredients, with accuracy.</p>	<p>Select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately.</p>	<p>Select from and use specialist tools and techniques for a range of uses. E.g. Whisk, craft knife, cutting mat, safety ruler.</p>

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		<p>Use equipment safely</p> <p>Select ingredients for combining into a finished product.</p>	<p>pins, scissors, templates, glue, tape.</p> <p>Join appropriately for different materials and situations.</p> <p>Explore ideas by rearranging materials e.g. paper, card, ingredients, fabrics, sequins, buttons, tubes, dowel, cotton reels, paper, card, mouldable materials.</p> <p>Select a range of ingredients, for combining into healthy dishes discussing why they are nutritious.</p>	<p>Select from and use a wider range of materials and components, to include construction materials, textiles and ingredients, according to their functional properties to meet a design criteria.</p> <p>Use the basic principles of a healthy and varied diet to prepare and cook healthy dishes, with discussion of where food comes from.</p>	<p>Consider working characteristics of materials.</p> <p>Prepare and cook a variety of predominantly healthy, savoury dishes using a range of cooking techniques, with discussion and application of the principles of a healthy and varied diet.</p>	<p>Join and combine a range of materials, some with temporary, fixed or moving joints.</p> <p>Prepare and cook a variety of predominantly healthy, savoury dishes using a range of cooking techniques, with discussion of seasonality, and where and how a variety of ingredients are grown or reared.</p>	<p>Join and combine a range of materials and ingredients using appropriate methods. E.g. beating, rubbing in, drilling, glueing, sewing, screwing.</p> <p>Select from and use a wider range of materials, components and ingredients taking into account their aesthetic properties.</p> <p>Prepare and cook a variety of predominantly healthy, savoury dishes using a range of cooking techniques, whilst applying the principles of a healthy and varied diet.</p>	<p>Select from and use a wider range of materials, components and ingredients taking into account their aesthetic properties.</p> <p>Prepare and cook a variety of predominantly healthy, savoury dishes or sweet dishes with replacement ingredients (eg sweet potato brownies) using a range of cooking techniques, whilst applying the principles of nutrition. Include discussion and application of the principles of a healthy and varied diet. Explore seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed.</p>

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Evaluate	<p>Represent their own ideas through their work</p> <p>Talks about their creation and how they got to the finished product</p>	<p>Say what they like and dislike about products that are already know</p> <p>Begin to say how they could improve a product offering own ideas</p>	<p>Explore existing products.</p> <p>Say what they like and do not like about products they have made.</p> <p>Consider and explain how the finished product could be improved.</p>	<p>Explore and evaluate existing products.</p> <p>Talk about their developing designs and identify good points and areas to improve throughout the design process.</p> <p>Evaluate their product and its appearance against a design criteria.</p>	<p>Investigate and analyse a range of existing products.</p> <p>Identify strengths and areas to improve in their own design.</p> <p>Identify what does and does not work in the product.</p>	<p>Use investigations of existing products to inform planning of their own product.</p> <p>Check their work as it develops and modify approach in light of progress.</p> <p>Discuss how well their product meets the design criteria and the needs of the user.</p>	<p>Show a clear understanding of the specification and use this to inform decisions.</p> <p>Justify decisions about materials and methods of construction.</p> <p>Evaluate products and use of information sources.</p>	<p>Test, evaluate and refine ideas and products against a specification.</p> <p>Justify decisions made during the design process.</p> <p>Evaluate products and use of information sources throughout the process and use this to inform planning.</p>
Technical knowledge	<p>Build using a variety of materials</p> <p>Begin to say how they made their structure</p>	<p>Build structures using different materials</p> <p>Begin to make suggestions to make structures stronger and more stable</p> <p>Begin to explore mechanisms such as levers, wheels and axels</p>	<p>Build structures and investigate how they can be made more stable.</p> <p>Create models with wheels and axels.</p> <p>Insert paper fasteners for card linkages.</p>	<p>Build structures and investigate how they can be made stronger, stiffer and more stable.</p> <p>Use a range of materials to create models with wheels, axels or hinges.</p> <p>Investigate temporary, fixed and moving joins.</p>	<p>Create shell or frame structures and make structures more stable.</p> <p>Join and combine materials with temporary, fixed or moving joining.</p> <p>Incorporate a circuit with a bulb or buzzer into a model.</p>	<p>Prototype shell or frame structures.</p> <p>Strengthen frames with diagonal struts.</p> <p>Use lolly sticks/card to make levers and linkages.</p>	<p>Build frameworks using a range of materials e.g. wood, corrugated card, plastic to support mechanisms.</p> <p>Use linkages to make movement larger or more varied.</p> <p>Incorporate motor and a switch into a model.</p>	<p>Build complex frameworks using a range of materials to support mechanisms.</p> <p>Use a CAM to make an up and down mechanism.</p> <p>Control a model using an ICT control programme.</p>

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