

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

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Design	<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>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>Name the tools you are using.</p> <p>Use given tools for a variety of tasks e.g. Knife, grater, chopping board, scissors, needles, pins, scissors, templates, glue, tape.</p> <p>Join materials and situations.</p> <p>Explore ideas by rearranging materials e.g.</p>	<p>Select and name the tools needed to work the materials. E.g. spoons, cups, needles, yarn, scissors, saws, drills.</p> <p>Select materials from a limited range to meet design criteria.</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>Consider working characteristics of materials.</p>	<p>Use tools and equipment, including those needed to weigh and measure ingredients, with accuracy.</p> <p>Join and combine a range of materials, some with temporary, fixed or moving joints.</p>	<p>Select and use tools and equipment for a range of uses. E.g. cut and shape ingredients, join fabrics, cut accurately and safely, use bradawl to mark holes, hand drill and pin and tacks during textile work.</p> <p>Join and combine a range of materials and ingredients using appropriate methods. E.g. beating, rubbing</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> <p>Select from and use a wider range of materials, components and ingredients taking into account their aesthetic properties.</p>

	paper, card, ingredients, fabrics, sequins, buttons, tubes, dowel, cotton reels, paper, card, mouldable materials.				in, drilling, glueing, sewing, screwing.	
Evaluate	<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 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 joining's.</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. 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. 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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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.
- ✓ Understand and apply the principles of nutrition.