

Design and Technology

	Design	Make	Evaluate	Construction	Textiles	Food, Cooking and Nutrition
Emergent	<ul style="list-style-type: none"> Begin to develop design ideas within the context of a project 	<ul style="list-style-type: none"> With support, use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing] Use an increasing range of materials and components 	<ul style="list-style-type: none"> Review work that has been completed and identify improvements that could be made, sharing ideas as a group. 	<ul style="list-style-type: none"> Begin to build structures for a particular purpose. 	<ul style="list-style-type: none"> With support, cut out shapes from fabric that have been created by drawing round a template With support, join fabric by pinning and then sewing 	<ul style="list-style-type: none"> Understand the need for hygiene when handling food. Understand that food comes from a range of origins e.g. trees, the ground and animals.
Early	<ul style="list-style-type: none"> Explore and evaluate a range of existing products Design purposeful, functional, appealing products for themselves and other users based on design criteria Generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology 	<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 and ingredients, according to their characteristics 	<ul style="list-style-type: none"> Discuss the qualities of the finished product and explore ways that it could be improved Discuss any changes made during the making process and why 	<ul style="list-style-type: none"> Build structures from a range of materials, exploring how they can be made stronger and more stable Explore and use a range of mechanisms e.g. levers, sliders, wheels and axles 	<ul style="list-style-type: none"> Cut out shapes from fabric that have been created by drawing round a template Join fabric by pinning and then sewing 	<ul style="list-style-type: none"> Work hygienically and safely to chop, peel, cut and grate a range of ingredients Understand where food comes from.
Middle	<ul style="list-style-type: none"> Investigate and analyse a range of existing products Use research and develop a specification to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups generate, develop, model and communicate their ideas through discussion, annotated sketches, and prototypes 	<ul style="list-style-type: none"> Select from and use a wider range of tools and equipment to perform practical tasks e.g. cutting, shaping, joining and finishing accurately 	<ul style="list-style-type: none"> Evaluate their ideas and products against their own specification and consider the views of others to improve their work understand how key events and individuals in design and technology have helped shape the world. Pupils should learn about inventors, designers, engineers, chefs and manufacturers who have developed ground-breaking products (this may be taught at the start or end of a project). 	<ul style="list-style-type: none"> Apply understanding of how to strengthen, stiffen and reinforce more complex structures Develop the use of mechanisms to create a more complex product Explore and incorporate simple electrical circuits into designs and products 	<ul style="list-style-type: none"> Create a simple pattern that shows awareness and understanding of seam allowance Join fabrics using a range of stitches including running, back and over stitching with increasing neatness and control Explore the properties of different fabrics and suitable uses for them e.g. denim, cotton, wool, satin 	<ul style="list-style-type: none"> Work hygienically and safely, using a range of kitchen equipment 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
Later	<ul style="list-style-type: none"> Investigate and analyse a range of existing products Use research and develop a specification to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups Learn that specification may need to be adapted for different places and cultures 	<ul style="list-style-type: none"> Select from and use a wider range of tools and equipment to perform practical tasks e.g. cutting, shaping, joining and finishing accurately Select for and use a wider of materials and components according to their functional properties and aesthetic qualities 	<ul style="list-style-type: none"> Evaluate their ideas and products against their own specification and consider the views of others to improve their work understand how key events and individuals in design and technology have helped shape the world. Pupils should learn about inventors, designers, engineers, chefs and 	<ul style="list-style-type: none"> Apply understanding of how to strengthen, stiffen and reinforce more complex structures Understand and utilise mechanical systems e.g. gears, pulleys, linkages and cams Understand and incorporate a range of electrical components into a product e.g. series circuits with switches, bulbs, buzzers and motors 	<ul style="list-style-type: none"> Create simple 3D products using pattern pieces and seam allowances Choose appropriate fabrics best suited to the product, taking their properties and qualities into account 	<ul style="list-style-type: none"> Understand and apply the principles of a healthy and varied diet, developed in science lessons, to plan meals with growing independence Prepare and cook a growing range of predominantly savoury dishes using a range of cooking techniques Understand seasonality, and know where and how a variety

	<ul style="list-style-type: none"> generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design 		<p>manufacturers who have developed ground-breaking products (this may be taught at the start or end of a project).</p> <ul style="list-style-type: none"> Begin to evaluate throughout the making process, making changes as required. 	<ul style="list-style-type: none"> Apply understanding of computing to program, monitor and control their products 		<p>of ingredients are grown, reared, caught and processed</p>
Extended	<ul style="list-style-type: none"> Begin to design to their own design problems Develop and communicate design ideas using detailed annotated plans, 3D drawings and mathematical modelling 	<ul style="list-style-type: none"> Select from and use specialist tools, techniques, processes, equipment and machinery precisely Select from and use a wider, more complex range of materials, components and ingredients, taking into account their properties 	<ul style="list-style-type: none"> Test, evaluate and refine ideas and products against a specification, taking into account the views of intended users Understand developments in DT, its impact on individuals, society and the environment 	<ul style="list-style-type: none"> Understand how more advanced mechanical and electrical systems can be used in their products 	<ul style="list-style-type: none"> Create an increasingly robust textile product which offers day to day usability 	<ul style="list-style-type: none"> Understand and apply the principles of nutrition and health Cook a repertoire of predominantly savoury dishes Become confident in a range of cooking techniques Understand the source, seasonality and characteristics of a broad range of ingredients
Key Vocabulary	<p>KS1 Design, make, evaluate LKS2 Specification UKS2 Adapted specification Functional properties Aesthetic qualities</p>			<p>KS1 Levers, sliders, wheels, axles, chassis LKS2 Structure, strengthen, reinforce. UKS2 Gears, pulleys, linkage, cams, series circuits, switches, bulbs, buzzers, components, motors</p>	<p>KS1 Template, running stitch, joining, cutting LKS2 Seam allowance, back and over stitch, fabric properties UKS2 Patterns, seam allowance, 3D products</p>	<p>KS1 Chop, peel, cut, grate LKS2 Healthy varied diet, savoury dishes, seasonality UKS2 Varied diet, nutritional value, seasonality, prepare</p>