

DESIGN TECHNOLOGY Progression of knowledge and skills

	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<p>Developing, planning and communicating design ideas</p> 	<ul style="list-style-type: none"> • Begin to use the language of designing and making, e.g. join, build and shape. • Learning about planning and adapting initial ideas to make them better. 	<ul style="list-style-type: none"> • Generate ideas by drawing on their own and other people's experiences. • Suggest ideas and explain what they are going to do. • Begin to understand the development of existing products - what they are for, how they work and what materials they use. • Identify a purpose for what they are going to make. • Use talking, drawing, templates and information technology to communicate ideas. • Begin to make mock-ups of their ideas using card or paper. 	<ul style="list-style-type: none"> • Generate ideas for a product considering purpose and user. • Establish criteria for a successful product. • Make labelled drawings and cross sectional diagrams. • Use pattern pieces and mock-ups. • Begin to understand and use prototypes. • Plan the order of work to be done. • Begin to consider alternative methods if the first attempt fails. • Begin to comment on how well a product has been designed and made in terms of fulfilling its purpose and the suitability of the materials used. • Learn about some groundbreaking designers, inventors, engineers, chefs and manufacturers. • Know whether products can be recycled. 	<ul style="list-style-type: none"> • Communicate ideas through brainstorming as a result of need or purpose. • Develop a design specification. • Record ideas using detailed labelled drawings, sketches, cross sections, prototypes and exploded diagrams. • Begin to understand and use computer aided design. • Plan the order of work to be done, including how to use materials and processes. • Use the results of investigations and information sources, including ICT, when developing design ideas. • Use available research to inform their designs and in considering whether existing products are fit for purpose. • Know how much products cost to make, how sustainable and innovative they are and the impact they have. • Know the work of some groundbreaking designers, inventors, engineers, chefs and manufacturers. 			
<p>Working with materials, tools,</p>	<ul style="list-style-type: none"> • To learn to construct with a purpose in 	<ul style="list-style-type: none"> • Make their designs using simple techniques, including 	<ul style="list-style-type: none"> • Select appropriate tools and techniques for making their 	<ul style="list-style-type: none"> • Accurately use appropriate tools and techniques for 			

<p>components and equipment to make products</p> 	<p>mind. -Selects tools and techniques needed to shape, assemble and join materials.</p>	<p>cutting, joining and shaping.</p> <ul style="list-style-type: none"> • Select appropriately from a range of tools and equipment to perform practical tasks. • Select from and use a wide range of materials and components, including construction materials and textiles. • With support, measure, cut and shape a range of materials including fabric. • Assemble, join and combine materials and components. 	<p>product.</p> <ul style="list-style-type: none"> • Measure, mark, cut out and shape a range of materials, including fabric. • Sew using a range of stitches as well as knit and weave. • Use simple finishing techniques to improve the strength and appearance of their product. • Join and combine materials and components accurately in temporary and permanent ways. 	<p>making their product.</p> <ul style="list-style-type: none"> • Measure, mark and cut out accurately. • Pin, sew and stitch materials together to make a product. • Cut and join with accuracy to make a good quality finish to the product. • Assemble components to make working models. • Select materials according to their functional properties and aesthetic qualities.
<p>Evaluating processes and products</p> 	<ul style="list-style-type: none"> • Begin to talk about changes made during the making process, e.g. making a decision to use a different joining method. 	<ul style="list-style-type: none"> • Explore and evaluate a range of existing products, saying what they like and dislike. • Discuss how well their designs work in relation to the purpose. • Be able to talk about the strengths of the product and possible changes they would make. 	<ul style="list-style-type: none"> • Disassemble and evaluate existing products. • Evaluate their product against original design criteria. How well does it meet its intended purpose? • Talk about what they like and dislike about their product and why. • Discuss changes they would make during the development stage as well as when the product is finished. • Identify and carry out tests to prove the success of the product. • Begin to evaluate the designs of individuals who have helped shape the world. 	<ul style="list-style-type: none"> • Evaluate their product against original design criteria, incorporating testing to determine how well it meets its intended purpose? • Evaluate their products, identifying strengths and areas for development both during and at the end of the process. • Record evaluations in a range of ways including drawings with labels. • Seek evaluation from others. • Evaluate the key designs of individuals in Design and Technology who have helped shape the world.

<p>Technical knowledge</p> 	<ul style="list-style-type: none"> To learn how to use a range of tools, e.g. scissors, hole punch, stapler, woodworking tools, rolling pins, pastry cutters. Learn how everyday objects work by dismantling things. 	<ul style="list-style-type: none"> Explore how structures can be made stronger, stiffer and more stable. Explore and use mechanisms in their products including levers, sliders, wheels and axles. 	<ul style="list-style-type: none"> Apply understanding of how to strengthen, stiffen and reinforce complex structures. Begin to apply knowledge of computing to control products. Understand and use electrical switches in their products. 	<ul style="list-style-type: none"> Confidently apply understanding of how to strengthen, stiffen and reinforce complex structures. Apply knowledge of computing to control products. Begin to use more complex electrical circuits in their products. Understand how mechanisms such as cams, pulleys and gears can create movement.
<p>Cooking and nutrition</p> 	<ul style="list-style-type: none"> To begin to understand some of the tools, techniques and processes involved in food preparation. -Children have basic hygiene awareness. 	<ul style="list-style-type: none"> Follow safety procedures for food technology and hygiene. Understand where food comes from. Know that food has to be farmed, grown or caught. Begin to understand the 5 food groups. Use basic understanding of a healthy diet to prepare dishes without a heat source. Use techniques such as cutting, peeling and grating. 	<ul style="list-style-type: none"> Demonstrate hygienic food preparation and storage. Understand and apply the principles of a healthy diet. Prepare and cook a range of predominantly savoury dishes using a range of cooking techniques. In addition to those previously learned, begin to use techniques such as chopping, slicing, mixing, spreading, kneading and baking. Know how energy is gained by the body, from different foods. Begin to understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed. Begin to know some of the sources of food in the UK and wider world. 	<ul style="list-style-type: none"> Demonstrate hygienic food preparation and storage with independence. Understand and apply the principles of a healthy diet. Weigh and measure ingredients accurately. Prepare and cook a range of predominantly savoury dishes using a range of cooking techniques. Begin to understand the processing of different foods Understand seasonality, and how it may affect food availability. Know the sources of foods in the UK and the wider world. Use techniques such as cutting, chopping, slicing, peeling, grating, mixing, spreading, kneading and baking with increasing independence. Begin to understand that different foods and drinks

