



Singlewell Primary School
cares about being...

Curious
Ambitious
Resilient
Equal
Safe

Design and Technology Curriculum Document

Intent for Design and Technology Curriculum

Singlewell Primary School *cares* about children enhancing their Design and Technology skills. As a school, we believe in providing *equal* opportunities for all to access an inspiring, challenging and practical subject which prepares children to contribute to the development of our rapidly changing world. Throughout EYFS, KS1 and KS2, children are encouraged to become *resilient* and creative thinkers, problem-solvers and potential innovators. Children use creativity, imagination, experience and research to design, make and evaluate products that tackle relevant social and environmental problems for today's society. Singlewell children will become more *ambitious* through developing technical and practical expertise. The children are encouraged to experiment with a range of tools, materials, processes and techniques, in a *safe* manner whilst being *curious* in the areas of construction, mechanisms and food and nutrition. In addition, children will be expected to build their understanding of a product's purpose, aesthetic and function, to test out their ideas and to critique and evaluate the work of others. Collaborative work in Design and Technology helps to foster mutual respect for the different perspectives and capabilities of peers and helps develop children's capacity to communicate, negotiate, persuade and feedback to others.

At Singlewell, Design and Technology is taught through a series of Construction, Mechanisms, Textiles and Cooking and Nutrition units which follow a 'Design/Make/Evaluate' structure. Cross curricular links can be explored within historical and geographical links such as 3D dinosaur sculpture, the Great Fire of London, Tudor houses, designing and making vehicles and pirate ships, exploring textiles and the resilience to make purposeful products including a CAM mechanism.

	Reception	Y1	Y2	Y3	Y4	Y5	Y6
Design and research	I can record my ideas using a variety of materials, tools & techniques. I can plan the resources I will need. I can talk about my ideas. <u>Vocabulary</u> I like this... I have made... I have used...	I can generate initial ideas and design criteria through own experiences. I can design simple products for a particular use. <u>Vocabulary</u> I like this... I will use...	I can generate ideas based on a simple design criteria and their own experiences, explaining what they could make. I can research develop, model and communicate my ideas through talking, mock ups and drawings. <u>Vocabulary</u> I will change this by... Next time I will... I will try to...	I can generate realistic ideas through discussion and design criteria for functional product for a specific purpose and user. I can research a design criteria to inform the design of a product fit for a purpose. I can use annotated sketches, final product sketches and pattern pieces to develop and communicate ideas. <u>Vocabulary</u> I have noticed... I am going to use this for... I prefer...compared to...	I can use research and develop a design criteria to inform the design of functional and appealing products that are fit for a purpose. I can gather information about the needs and wants of particular individuals and groups, and use these to inform my ideas. I can use annotated sketches and appropriate information and communication technology, such as web based recipes, to develop and communicate ideas. <u>Vocabulary</u> I have tried to... My end goal is... I will adapt... by...	I can generate ideas through research including surveys, questionnaires and discussion with peers to develop a design brief and criteria. I can use research and develop a design criteria to inform the design of functional and appealing products that are fit for a purpose, aimed at particular individuals. I can develop and communicate ideas through discussion, drawings and drawings from different views. <u>Vocabulary</u> This piece of work makes me feel... because... I chose to start here because... This method works best... because...	I can use research such as surveys, interviews, questionnaires and web based resources to develop a design specification for a range of functional products. I can develop a design specification to guide the development of my idea and products, talking account of constraints including times and resources. I can identify the needs, wants, preferences and values of particular individuals and groups. I can generate and develop innovative ideas and share and clarify these through discussion. <u>Vocabulary</u> I like the way ... (technical vocabulary) has been used to... This didn't work but... I am going to present my work by...

Make	I can choose resources I need for my chosen activity. I can handle equipment and tools effectively. I can safely use and explore a variety of materials, tools and techniques. <u>Vocabulary</u> Safety	I can select and use simple utensils, tools and equipment to perform a job. I can use the tools and equipment safely, explaining the importance of this. I can plan by suggesting what to do next. <u>Vocabulary</u> Investigate, design, make, user, purpose, ideas, product. Safety.	I can select and use tools, equipment, skills and techniques to perform practical tasks, explaining my choices. I can use the tools and equipment safely, explaining the importance of this and how we ensure we are being safe around others. I can select materials to create my product and use simple finishing techniques. I can plan by suggesting what to do next and explain my choices. <u>Vocabulary</u> Investigating, design, make, purpose, ideas, design, criteria, function, product, safety.	I can select and use a range of appropriate tools, equipment and utensils to make some accuracy related to my product. I can select from and use finishing techniques suitable for the product they are creating. I can plan the main stages of making. <u>Vocabulary</u> Innovative, user, purpose, function, sketch, appealing, planning, label, drawing	I can select and use appropriate tools to measure, mark out, cut, score, shape and combine with some accuracy related to their products. I can select from and use materials and components according to their function and properties. I can order the main stages of making. <u>Vocabulary</u> Design criteria, appealing, planning,	I can select from and use, a range of appropriate utensils, tools and equipment accurately to measure and combine appropriate ingredients, materials and resources. I can produce detailed lists of equipment and fabrics relevant to the task. I can write a step-by-step plan including a list of resources required <u>Vocabulary</u> Design decisions, functionality, user, purpose, design brief, design criteria,	I can competently select from and use appropriate tools to accurately measure, mark, cut and assemble materials, and securely connect components to produce reliable products. I can use finishing and decorative techniques suitable for the product they are designing and making. I can formulate a step – by – step plan to guide making, listing tools, equipment, materials and components. <u>Vocabulary</u> Design decisions, functionality, user, purpose, design brief, design criteria, Research,
	I can represent my own ideas. I can talk about what I have created. I can use what I have learnt about media & materials in original ways, thinking about uses & purposes. I can represent my own ideas, thoughts and feelings through DT <u>Vocabulary</u> Like, dislike, created	I can evaluate my ideas throughout and finished products. I can make simple judgements. <u>Vocabulary</u> Evaluate, product, ideas	I can evaluate my product by discussing how well it works in relation to the purpose and whether it meets the original design criteria. I can make simple judgements and suggest how my product can be improved. <u>Vocabulary</u> Evaluate, product, idea	I can evaluate the ongoing work and the final product with reference to the design criteria and the views of others. I can test the product against the original design criteria. <u>Vocabulary</u> Evaluate, design criteria, product	I can test and evaluate my own products against design criteria and the intended user and purpose. I can begin to consider the views of others, evaluate my ideas and products against my own design and identify strengths and areas for improvement in my work. <u>Vocabulary</u> Design criteria, evaluate,	I can test products with intended user and critically evaluate the quality of the design, function & purpose. I can analyse products linked to my final product. I can compare to the original design specification and record the evaluations. I can consider the views of others to improve their work. <u>Vocabulary</u> Annotate, evaluate, mock up,	I can test the system to demonstrate its effectiveness for the intended user and purpose. I can continually evaluate and modify the working features of the product to match the initial design. I can critically evaluate my product against my design specification, intended user and purpose, identifying strengths and areas for development, and carrying out appropriate tests. <u>Vocabulary</u> Mock up, prototype, evaluate, functional,

Technical knowledge and textiles	I can handle equipment and tools effectively, including pencils for writing. <u>Vocabulary</u> Pattern pieces, join, mark, decorate.	I can build structures, exploring how they can be made stronger, stiffer and more stable. I can understand that a 3D textile product can be assembled from two identical fabric shapes. <u>Vocabulary</u> Joining and finishing, tools, fabric, components, decorate,	I can explore and use mechanisms such as wheels and axels in my products. I can understand that a 3D textile product can be assembled from two identical fabric shapes. <u>Vocabulary</u> Joining and finishing, tools, fabric, components, decorate, template, pattern pieces, finish.	I can apply my understanding of how to strengthen, stiffen and reinforce more complex structures. I can understand that a single fabric shape can be used to make a 3D textiles product. <u>Vocabulary</u> Fabric, names of fabric, fastening, zip, button, strength, weakness, stiffening, stitch, seam.	I can understand and use electrical systems in their products such as bulbs, switches, buzzers, motors. I can understand that a single fabric shape can be used to make a 3D textiles product. <u>Vocabulary</u> Fabric, names of fabric, fastening, zip, button, strength, weakness, stiffening, stitch, seam, seam allowance, finishing technique.	I can understand and use mechanical systems such as pulleys, cams and levers. I can understand that a 3D textile product can be made from a combination of fabric shapes. <u>Vocabulary</u> Seam, seam allowance, wadding, reinforce, right side, wrong side, hem, template, pattern pieces, name of textiles and fastening used, needles, thread, shears.	I can apply my understanding of computing to program, monitor and control my products. I can understand that a 3D textile product can be made from a combination of fabric shapes. <u>Vocabulary</u> Seam, seam allowance, wadding, reinforce, right side, wrong side, hem, template, pattern pieces, name of textiles and fastening used, needles, thread, shears.
Cooking and nutrition, knowledge and skills	I can know the importance for good health of a healthy diet. <u>Vocabulary</u> Healthy, diet, active, health.	I can understand where a range of fruit and vegetables come from I can say that everyone should eat at least five portions of fruit and vegetables a day. I can understand and use basic principles of a healthy and varied diet to prepare dishes. <u>Vocabulary</u> Diet, portions, fruit and vegetable names, Soft, crunchy, juicy, sweet, sticky, sour, hard, skin, seed, pip.	I can understand where a range of fruit & vegetables originate: plants/ animals (farmed or home grown). I can prepare simple dishes safely & hygienically, without using a heat source. I can understand the basic principles of a healthy and varied diet to prepare dishes including how fruit and vegetables are part of the eat-well plate. <u>Vocabulary</u> Name of products, name of equipment, utensils. Soft, crunchy, juicy, sweet, sticky, sour, hard, skin, seed, pip.	I can know how to use appropriate equipment and utensils to prepare and combine food. I can talk about how a healthy diet is made from a variety and balance of different food and drink, as depicted in the eatwell plate. I can talk about a range of fresh & processed ingredients, and whether they are grown, reared or caught. <u>Vocabulary</u> Name of techniques and ingredients, products, utensils, texture, sweet, sour, smell, hot, appearance, frozen, tinned, caught, fresh, reared.	I can know how to use appropriate equipment and utensils to prepare and combine food. I can understanding that to be active and healthy, food and drink are needed to provide energy for the body. I can know about a range of fresh and processed ingredients appropriate, and whether they are grown, reared or caught. <u>Vocabulary</u> Name of techniques and ingredients, products, utensils, texture, sweet, sour, smell, hot, appearance, frozen, tinned, caught, fresh, reared, processed, harvested, healthy, varied diet.	I can know how to use utensils and equipment including heat sources to prepare and cook food. I can understand that different food and drink contain different substances – nutrients, water and fibre – that are needed for health. I can understand about reasonality in relation to food products and the source of different food products. <u>Vocabulary</u> Ingredients, yeast, doughm bran, flour, wholemeal, spice, herbs, fat, sugar, carbonhydrates, protiens, vitamins, nutrients, gluten, dairy, allergy, utensils, knead, stir, pour, whisk, beat, roll, shape, sprinkle, crumble.	I can know how to use utensils and equipment including heat sources to prepare and cook food. I can understand that recipes can be adapted to change the appearance, taste, texture and aroma. I can understand about reasonality in relation to food products and the source of different food products. I can understand how much products costs to make. <u>Vocabulary</u> Ingredients, yeast, doughm bran, flour, wholemeal, spice, herbs, fat, sugar, carbonhydrates, protiens, vitamins, nutrients, gluten, dairy, allergy, utensils, knead, stir, pour, whisk, beat, roll, shape, sprinkle, crumble. combine, savoury,

