Wellesbourne Primary and Nursery School

Living to Learn, Learning to Live

Progression of Skills in Design and technology

	Design	Make	Evaluating / Technical Knowledge	Cooking and Nutrition
Nursery	• Develop own ideas & decide which materials to use to express them	• Use various construction materials, e.g. joining pieces, stacking vertically and horizontally, balancing, making enclosures and creating spaces • Use available resources to create props or creates imaginary ones to support play	• Notice what other children & adults do, mirroring what is observed, adding variations & then doing it spontaneously • Develop new skills & techniques • Use tools for a purpose	• Talk about the differences between changes they notice • Make healthy choices
Reception	• Develop own ideas through experimentation with diverse materials to express & communicate their discoveries & understanding • Create collaboratively sharing ideas, resources & skills	• Use increasing knowledge & understanding of tools & materials to explore their interests & enquiries & develop their thinking • Create representations both imaginary & real-life ideas, events, people & objects	• Express & communicates working theories, feelings & understandings • Responds imaginatively to art works & objects • Return to & build on previous learning, refining ideas & developing their ability to represent them • Discuss problems & how they might be solved • Use different techniques for joining materials • Use tools independently, with care & precision	• Look closely at similarities, differences, patterns & change • Know & talk about the different factors that support their overall health & well-being

Year 1	Pupils will draw in their own experience to help generate ideas. Pupils will suggest ideas and explain what they are going to do. Pupils will identify a target group for what they are going to design and make. Pupils will model their ideas in card and paper. Pupils will develop their design ideas applying findings from their earlier research.	Pupils will make their design using appropriate techniques. Pupils will, with help, to measure, mark out, cut and shape a range of materials. Pupils will use tools e.g. scissors and a hole punch safely. Pupils will assemble, join and combine materials and components together using a variety of temporary methods e.g. glues or masking tape. Pupils will select and use appropriately fruit and vegetables, processes and tools. Pupils will use simple finishing techniques to improve the appearance of their product.	Pupils will evaluate their product by discussing how well it works in relation to purpose. Pupils will evaluate their products as they are developed, identifying strengths and possible changes they might make. Pupils will evaluate their product by asking questions about what they have made and how they have gone about it.	Pupils will begin to understand that all food comes from plants and animals. Pupils will know how to name and sort foods into five food groups in the Eatwell Plate. Pupils will know basic food handling, hygienic practices and personal hygiene.

Year 2	Pupils will generate ideas by drawing on their own and other people's experiences. Pupils will develop their design ideas through discussion, observation, drawing and modelling. Pupils will identify a purpose for what they intend to design and make. Pupils will identify simple design criteria to make simple drawings and label parts.	Pupils will begin to select tools and materials; use vocab to name and describe them. Pupils will measure, cut and score with some accuracy. Pupils will use hand tools safely and appropriately. Pupils will assemble, join and combine materials in order to make a product. Pupils will cut, shape and join fabric to make a simple garment. Use basic sewing techniques. Pupils will choose and use appropriate finishing techniques.	Pupils will evaluate against their design criteria. Pupils will evaluate their products as they are developed, identify strengths and possible changes they might make. Pupils will talk about their ideas saying what they like and dislike about them.	Pupils will begin to identify where food groups come from (animals or plants). Pupils will know that food has to be farmed, grown elsewhere (e.g. home) or caught. Pupils will know that everyone should eat at least five portions of fruit and vegetables every day. Pupils will know how to prepare simple dishes safely and hygienically, without using a heat source. Pupils will know how to use techniques such as cutting, peeling and grating.

Year 3	Pupils will generate ideas for an item, considering its purpose and the user/s. Pupils will identify a purpose and establish criteria for a successful product. Pupils will plan the order of their work before starting. Pupils will explore, develop and communicate design proposals by modelling ideas. Pupils will make drawings with labels when designing.	Pupils will select tools and techniques for making their product. Pupils will measure, mark out, cut, score and assemble components with more accuracy. Pupils will work safely and accurately with a range of simple tools. Pupils will think about their ideas as the make progress and be willing to change if this helps them to improve their work. Pupils will measure, tape or pin, cut and join fabric with some accuracy. Pupils will use finishing techniques to strengthen and improve the appearance of their product using a range of equipment including ICT.	Pupils will evaluate their product against original design criteria, e.g. how well it meets its intended purpose. Pupils will disassemble and evaluate familiar products.	Pupils will demonstrate hygienic food preparation and storage. Pupils will know that a healthy diet is made up from a variety and balance of different food and drink, as depicted in the Eatwell Plate.

Year 4	Pupils will generate ideas, considering the purposes for which they are designing. Pupils will make labelled drawings from different views showing specific features. Pupils will develop a clear idea of what has to be done, planning how to use materials, equipment and processes, and suggesting alternative methods of making if the first attempt fails. Pupils will evaluate products and identify criteria that can be used for their own designs.	Pupils will select appropriate tools and techniques for making their product. Pupils will measure, mark out, cut and shape a range of materials, using appropriate tools, equipment and techniques. Pupils will join and combine materials and components accurately in temporary and permanent ways. Pupils will sew using a range of different stitches, to weave and knit. Pupils will measure, tape or pin, cut and join fabric with some accuracy. Pupils will use simple graphical communication techniques.	Pupils will evaluate their work both during and at the end of the assignment. Pupils will evaluate their products carrying out appropriate tests. Pupils will know when and where products were designed and made. Pupils will know whether products can be recycled or reused. Pupils will begin to look at inventors and their work.	Pupils will now that to be active and healthy, food and drink are needed to provide energy for the body.

Year 5	Pupils will generate ideas through brainstorming and identify a purpose for their product. Pupils will draw up a specification for their design. Pupils will develop a clear idea of what has to be done, planning how to use materials, equipment and processes, and suggesting alternative methods of making if the first attempts fail. Pupils will use results of investigations, information sources, including ICT when developing design ideas. Pupils model their ideas using prototype and patter pieces.	Pupils will use a wider range of appropriate material, tools and techniques e.g. kits, textiles, food ingredients, mechanical. Pupils will measure and mark out accurately. Pupils will use skills in using different tools and equipment safely and accurately. Pupils will weigh and measure accurately (time, dry ingredients, liquids). Pupils will cut and join with accuracy to ensure a good-quality finish to the product. Pupils will generate innovative ideas.	To evaluate a product against the original design specification. To evaluate it personally and seek evaluation from others. Investigate how much products cost to make, how sustainable and what impact they have beyond their intended use. Evaluate how learning from science and Mathematics can help design and make products that work.	To apply the rules for basic food hygiene and other safe practices, e.g. hazards relating to the use of ovens. To have a basic understanding of how food is grown, reared or caught in the UK. To know how to prepare and cook a range of predominantly savoury dishes safely and hygienically, where appropriate, the use of a heat source. Use a range of techniques when such as peeling and chopping.

Year 6	To communicate their ideas through detailed labelled drawings to develop a design specification. To explore, develop and communicate aspects of their design proposals by modelling their ideas in a variety of ways. To plan the order of their work, choosing appropriate materials, tools and techniques. To carry out research, using surveys, interviews, questionnaires and web-based resources. To identify the needs of individuals and groups.	To select tools, materials, components and techniques appropriate to the task. To assemble components to make working models. Follow procedures for safety and hygiene. To construct products using permanent joining techniques. To make modifications as they go along. To pin, sew and stitch materials together to make a product. Demonstrate resourcefulness when tackling practical problems.	To evaluate their products, identifying strengths and areas for development, and carrying out appropriate tests. To record their evaluations using drawings with labels. To critically evaluate the quality of their design, manufacture and fitness for purpose of their products as they design and make. To show an awareness of how much products cost to make, how innovative and sustainable they are. To use science and mathematical knowledge to help plan and make products. To know that materials have both functional properties and aesthetic properties. To know than mechanical and electrical systems have an input, process and output.	Understand that different food and drink contain different substances – nutrients, water and fibre – that are needed for health. To know that seasons may affect the food available. To know that food is processed into ingredients that can be eaten or used in cooking. Use a range of techniques such as peeling, chopping, slicing, grating, mixing, spreading, kneading and bakery.