



### The Design Technology Curriculum at Sheepscombe Primary School

**The Sheepscombe School Community believes that:**

The Sheepscombe community believes that every child should learn the joy of designing and producing things that are useful in everyday life. They are given opportunities to explore what is needed, available resources and accessible technology creatively. Particular emphasis is given on cooking throughout the years, as we believe cooking and eating well is an important life skill. From sewing to woodwork, our children engage in a variety of design and production ventures, with much emphasis re-using and minimising waste. We recognise that the skills learned in Design Technology also help with learning across the curriculum. Design and Technology helps develop children’s skills through collaborative working and problem-solving, and knowledge in design, materials, structures, mechanisms and electrical control. Children are encouraged to be creative and innovative, and are actively encouraged to think about important issues such as sustainability and enterprise. Our children tell us that they like making decisions for themselves and doing practical work. They love creating products they can see, touch – and even taste – for themselves and feel proud to have done so. DT It is a motivating context for discovering and using english, mathematics, science, art, PSHE, ICT and other curricular skills.

**National Curriculum – Aims**

- The national curriculum for design and technology aims to ensure that all pupils:
- develop the creative, technical and practical expertise needed to perform everyday tasks confidently and to participate successfully in an increasingly technological world
  - build and apply a repertoire of knowledge, understanding and skills in order to design and make high-quality prototypes and products for a wide range of users
    - critique, evaluate and test their ideas and products and the work of others
    - understand and apply the principles of nutrition and learn how to cook.

**National Curriculum – Purpose of Study**

Design and technology is an inspiring, rigorous and practical subject. Using creativity and imagination, pupils design and make products that solve real and relevant problems within a variety of contexts, considering their own and others’ needs, wants and values. They acquire a broad range of subject knowledge and draw on disciplines such as mathematics, science, engineering, computing and art. Pupils learn how to take risks, becoming resourceful, innovative, enterprising and capable citizens. Through the evaluation of past and present design and technology, they develop a critical understanding of its impact on daily life and the wider world. High-quality design and technology education makes an essential contribution to the creativity, culture, wealth and well-being of the nation.

**Early Years Foundation Stage**

During the Early Years Foundation Stage, the essential building blocks of children’s design and technology capability are established. There are many opportunities for carrying out D&T-related activities in all areas of learning in the EYFS. By the end of the EYFS, children in our setting will be able to: Construct with a purpose in mind, using a variety of resources; Use simple tools and techniques competently and appropriately; Build and construct with a wide range of objects, ; Select the tools and techniques they need to shape, assemble and join materials they are using; Take part in cooking activities D&T-related activities in the EYFS will be appropriate to the developmental stage of the children. Effective practice in the EYFS has the following characteristics: Designing does not necessarily entail drawing; Designing can mean using hand gestures, arranging and re-arranging materials and components, talking and listening; Designing is usually intuitive; The designing and making process is fluid; Sometimes practical skills are taught directly; Children have frequent opportunities to develop practical skills with a range of materials; Children have frequent opportunities to explore construction kits; Children have frequent opportunities to explore existing products; Activities are appropriate to children’s prior experience; The context is sometimes set by class staff, sometimes by the children.

In EYFS and KS1 all children will:  
 Begin to learn to knit and sew, Begin to learn how to minimise waste (eg using left over food to create a new dish), Learn to grow their own food, Begin to make eco friendly products, Learn about the different jobs that people do that may incorporate design technology. Build, create and construct from a design.

In Key Stage 2 all children will:  
 Design and make a product using woodwork, design and make a product using fabric, Disassemble products (at the end of their useful life) to investigate their component parts , Learn to knit, Make and use eco friendly products, Grow and cook their own food, Learn about possible careers incorporating design and technology, Visit a commercial kitchen and/or factory, Listen to presentations given by master craftsmen. Take part in activities which involve investigating and evaluating existing products as well as focused tasks in which children develop particular aspects of knowledge and skills

| Merlin Class                                                                                                                                                                                                                                                                   |                                                                                                                                                                                            |                                                                                                                                                                                                                                                     |                                                                                                                                                                                               | Kestrel Class                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                      | Eagle Class                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                  |
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| Little Lambs                                                                                                                                                                                                                                                                   | Reception                                                                                                                                                                                  | Year 1                                                                                                                                                                                                                                              | Year 2                                                                                                                                                                                        | Year 3                                                                                                                                                               | Year 4                                                                                                                                                                                                                                                                                                               | Year 5                                                                                                                                                                                                                           | Year 6                                                                                                                                                                                                                                                                                           |
| <b>Cooking and nutrition</b><br>Allow the children to do as much as they can for themselves<br>Promote good hygiene before beginning such as cleaning tables and washing hands<br>Encourage the children to look at the ingredients and think about what they might be cooking | <b>Cooking and nutrition</b><br>Prepares a simple dish safely without a heat source.<br>Begins to use tools eg for peeling, with support<br>Begins to use a heat source with adult support | <b>Cooking and nutrition</b><br>Say where some food comes from and give examples of food that is grown<br>Select and use appropriate fruit and vegetables, processes and tools.<br>Use basic food handling, hygienic practices and personal hygiene | <b>Cooking and nutrition</b><br>Understand that all food has to be farmed, grown or caught<br>Follow safe procedures for food safety and hygiene.<br>Learn new techniques in food technology. | <b>Cooking and nutrition</b><br>Use a wider variety of ingredients and techniques to prepare and combine ingredients safely<br>Develop knowledge of food preparation | <b>Cooking and nutrition</b><br>Understand what makes a healthy and balanced diet, and that different foods and drinks provide things the body needs to be healthy and active<br>Demonstrate hygienic food preparation and storage<br>Read and follow recipes which involve several processes, skills and techniques | <b>Cooking and nutrition</b><br>Understand how a variety of ingredients are grown, reared, caught and processed to make them safe and palatable / tasty to eat<br>Weigh and measure accurately (time, dry ingredients, liquids). | <b>Cooking and nutrition</b><br>Research, plan and prepare and cook a savoury dish, applying knowledge of ingredients and technical skills<br>Use information on food labels to inform choices<br>Know how to prepare and cook a variety of predominantly savoury dishes safely and hygienically |

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| <p>Encourage the children to name the ingredients and discuss where it has come from or how it grows</p> <p>Encourage the children to weigh out their own ingredients</p> <p>Teach them skills such as how to cut safely or how to crack an egg</p> <p>Talk about what is happening as you mix the ingredients together</p> <p>Talk about the textures and smells</p> <p>Be supportive and allow the children to explore, actively learn and critically think for themselves</p> <p>Talk about healthy and unhealthy choices as you cook</p> <p>Encourage the children to share, work as a team and problem solve along the way.</p> <p><b>Processes</b></p> <p>Begin to construct, eg stacking blocks vertically and horizontally, making enclosures and creating spaces.</p> <p>Understand that different media can be combined to create new effects</p> <p>Children experiment to create new effects and textures, for example, by drizzling glue over wool, or squirting pools of colour on to paper.</p> <p>Children explore changes in properties of media as they are transformed through becoming wet, dry, flaky or fixed. Talk about what is happening, helping them to think about cause and effect</p> <p>Children work creatively on a large or small scale</p> | <p>Begins to identify different types of food by their food group</p> <p><b>Processes</b></p> <p>Can say what they like and dislike about a product.</p> <p>Start developing own ideas for a design.</p> <p>Designing may, but does not need to, entail drawing.</p> <p>Shows skill in making toys work by pressing parts or lifting flaps to achieve effects such as sound, movements or new images.</p> <p>Manipulates materials to achieve a planned effect</p> <p>Constructs with a purpose in mind, using a variety of resources and tools..</p> <p>Uses simple tools and techniques appropriately.</p> <p>Uses ICT hardware to interact with age-appropriate computer software.</p> <p>Children safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function</p> | <p>Develops use of tools eg for peeling, with support</p> <p>Develops use of a heat source with adult support</p> <p>Develops knowledge different types of food by their food group</p> <p><b>Processes</b></p> <p>Use a range of simple tools to cut, join and combine materials and components safely</p> <p>Select from and use a range of tools and equipment to perform practical tasks e.g. cutting, shaping, joining and finishing. Use tools eg scissors and a hole punch safely</p> <p>Ask simple questions about existing products and those that he/she has made</p> <p>Make their design using appropriate techniques.</p> <p>With help measure, mark out, cut and shape a range of materials.</p> <p>Assemble, join and combine materials and components together using a variety of temporary methods e.g. glues or masking tape.</p> <p>Suggest ideas and explain what they are going to do. Identify a target group for what they intend to design and make. Model their ideas on card and paper.</p> <p>Evaluate their product and those of others by asking questions about what they have made and how they have gone about it.</p> | <p><b>Processes</b></p> <p>Choose tools and select materials based on knowledge of their properties</p> <p>Safely measure, mark out, cut and shape materials and components using a range of tools</p> <p>Investigate different techniques for stiffening a variety of materials and explore different methods of enabling structures to remain stable</p> <p>Evaluate their own products as they are developed, identifying strengths and possible changes they might make. Evaluate and assess existing products and those that have been made using a design criteria</p> <p>Develop their design ideas through discussion, observation, drawing and modelling.</p> <p>Identify a purpose for what they intend to design and make. Make simple drawings and label parts.</p> <p>Use hand tools safely and appropriately.</p> <p>Assemble, join and combine materials in order to make a product.</p> <p>Cut, shape and join fabric to make a simple product eg a bag using basic sewing techniques.</p> | <p><b>Processes</b></p> <p>Safely measure, mark out, cut, assemble and join with some accuracy</p> <p>Make suitable choices from a wider range of tools and unfamiliar materials and plan out the main stages of using them</p> <p>Investigate and analyse existing products and those made, considering a wide range of factors</p> <p>Create designs using annotated sketches, cross-sectional diagrams and simple computer programmes</p> <p>Evaluate their product against original design criteria e.g. how well it meets its intended purpose..</p> <p>Disassemble and evaluate familiar products.</p> <p>Generate ideas for an item considering its purpose.</p> <p>Identify a purpose and establish criteria for a successful product.</p> <p>Plan the order of their work before starting.</p> <p>Explore, develop and communicate design proposals by modelling ideas.</p> <p>Make drawings with labels when designing.</p> <p>Select tools and techniques for making their product.</p> <p>Measure, mark out, cut, score and assemble components with more accuracy.</p> <p>Measure, tape or pin, cut and join fabric with some accuracy.</p> <p>Use finishing techniques strengthen and improve the appearance of their product using a range of equipment including ICT</p> | <p><b>Processes</b></p> <p>Use knowledge of existing products to design a functional and appealing product for a particular purpose and audience</p> <p>Consider how existing products and own finished products might be improved and how well they meet the needs of the intended user</p> <p>Apply techniques learnt to strengthen structures and explore my own ideas</p> <p>Evaluate their work both during and at the end of the process. Evaluate their products carrying out appropriate tests.</p> <p>Develop a clear idea of what has to be done, planning how to use materials, equipment and processes, and suggesting alternative methods of making it.</p> <p>Evaluate products and identify criteria that can be used for their own designs</p> <p>Make labelled drawings from different views showing specific features.</p> <p>Select appropriate tools and techniques for making their product.</p> <p>Measure, mark out, cut and shape a range of materials, using appropriate tools, equipment and techniques.</p> <p>Join and combine materials and components accurately in temporary and permanent ways.</p> <p>Measure, tape or pin, cut and join fabric with some accuracy.</p> <p>Use simple graphical communication techniques.</p> | <p>Apply the rules for basic food hygiene and other safe practices e.g. hazards relating to the use of oven</p> <p>Begin to use information on food labels to inform choices</p> <p><b>Processes</b></p> <p>Use research into existing products and market research to inform the design of an innovative product</p> <p>Draw up a specification for their design. Create prototypes to show ideas</p> <p>Make careful and precise measurements so that joins, holes and openings are in exactly the right place</p> <p>Make detailed evaluations about existing products and their own considering the views of others to improve work</p> <p>Evaluate a product against the original design specification</p> <p>Develop a clear idea of what has to be done, planning how to use materials, equipment and processes</p> <p>Use results of investigations, information sources, including ICT when developing design ideas</p> <p>Measure and mark out accurately. Use skills in using different tools and equipment safely and accurately.</p> | <p>including, where appropriate, the use of a heat source.</p> <p><b>Processes</b></p> <p>Use research into famous designers and inventors to inform the design of their own innovative products</p> <p>Generate, develop, model and communicate ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design</p> <p>Apply knowledge of materials and techniques to refine and rework their products to improve its functional properties and aesthetic qualities</p> <p>Use a wide range of methods to strengthen, stiffen and reinforce complex structures and use them accurately and appropriately</p> <p>Evaluate their products identifying strengths and areas for development.. Evaluate against their original criteria and suggest ways that their product could be improved</p> <p>Communicate their ideas through detailed labelled drawings.</p> <p>Develop a design specification.</p> <p>Explore, develop and communicate aspects of their design proposals by modelling their ideas in a variety of ways. (Link with Maths and Science).</p> <p>Plan the order of their work, choosing appropriate materials, tool.</p> <p>Select appropriate materials, components and techniques.</p> <p>Assemble components and make working models.</p> <p>Use tools safely and accurately.</p> <p>Construct products using permanent joining techniques. Make modifications as they go along.</p> |
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