



St. Oswald's Catholic Primary School – Curriculum Overview 2022_2023

Design Technology

	Autumn	Spring	Summer
Nursery	Throughout nursery the children will cover these objectives: <ul style="list-style-type: none"> • Shows control in holding and using jugs to pour, hammers, books and mark-making tools. • Uses one-handed tools and equipment, e.g. makes snips in paper with child scissors. • Uses simple tools to effect changes to materials. • Handles tools, objects, construction and malleable materials safely and with increasing control. • Shows understanding of the need for safety when tackling new challenges, and considers and manages some risks. • Shows understanding of how to transport and store equipment safely. • Practices some appropriate safety measures without direct supervision. • Beginning to be interested in and describe the texture of things. • Uses various construction materials. • Beginning to construct, stacking blocks vertically and horizontally, making enclosures and creating spaces. • Joins construction pieces together to build and balance. • Realises tools can be used for a purpose. • Understands that different media can be combined to create new effects. • Manipulates materials to achieve a planned effect. • Constructs with a purpose in mind, using a variety of resources. • Uses simple tools and techniques competently and appropriately. • Selects tools and techniques needed to shape, assemble and join materials they are using. • Uses available resources to create props to support role-play. • Captures experiences and responses with a range of media, such as music, dance and paint and other materials or words. • Create simple representations of events, people and objects. 		
Reception	<ul style="list-style-type: none"> • Children handle equipment and tools effectively, including pencils for writing. • Children know the importance for good health of physical exercise, and a healthy diet, and talk about ways to keep healthy and safe. • Children will talk about their ideas, and will choose the resources they need for their chosen activities. • Children safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function. • Children represent their own ideas, thoughts and feelings through design and technology, art, music, dance, role-play and stories. 		
Year 1	Cooking and Nutrition Can you identify where our food comes from? Focusing on: Where food comes from – looking at food they eat. Children will make simple dishes – including fruit kebab / salad / sandwich	Sliders / movers and levers: Moving Pictures Can you create a moving picture with two mechanisms? Evaluate how well a product works. Draw a simple design and add annotations. Children to generate ideas through communication, modelling, drawing and templates. Make a picture that aims to have two moving mechanisms. Use design criteria to help guide the making and evaluation process. Select from and use a range of tools and equipment to perform practical tasks, for example cutting, shaping, joining and finishing.	Construction: Design a windmill out of recyclable materials. Can you design and construct a 3D model of a windmill, using recyclable materials? Research recyclable materials and different sources of energy. Children can visit Gillmoss recycling centre to assist on their research of recyclable materials. Children are to design a purposeful, functional, appealing product for themselves and other users based on design criteria. Children are to generate, develop, model and communicate their ideas through talking, drawing and templates. Children are to build structures, exploring how they can be made stronger, stiffer and more stable.

<p>Year 2</p>	<p>Cooking and Nutrition Can you plan and make a healthy meal?</p> <p>Children will be taught the importance of a healthy and varied diet. They will prepare and cook a variety of dishes using a range of cooking techniques. Children will further develop their understanding where food comes from.</p> <p>Children will plan and make a healthy meal focusing on the healthy eating plate – looking at food groups</p>	<p>Construction: constructing a model using wheels and axles Can you design, make and evaluate your own moving vehicle?</p> <p>Evaluate their ideas and products against design criteria. Explore and use mechanisms e.g. wheels and axles in their products. Select from a range of materials (including recycled materials and textiles), fastening techniques and tools and use to create 2D and 3D representations. Children are to build structures, exploring how they can be made stronger, stiffer and more stable.</p>	<p>Textiles: Puppet Making Can you design and create a puppet and evaluate whether it is fit for purpose?</p> <p>Investigate and research a range of puppets and their features. Children to develop and practice their sewing skills to design a glove puppet. To be able to follow a design to make a puppet. Children should shape textiles using templates and join textiles using a running stitch. Children are to colour and decorate textiles using a variety of techniques; e.g. dyeing, printing, adding sequins to make their product aesthetically pleasing. Evaluate a finished product.</p>
<p>Year 3</p>	<p>Cooking and Nutrition Can you make a European savoury dish?</p> <p>Children will be taught:</p> <ul style="list-style-type: none"> to understand and apply the principles of a healthy and varied diet to prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques to understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed <p>They will prepare and cook a variety of dishes using a range of cooking techniques focusing on European dishes – in preparation for Geography unit in the spring.</p>	<p>Computer Aided Design (CAD): Making Mini Greenhouses. Can you use a computer programme to design a mini greenhouse?</p> <p>Research greenhouses and their purpose. Children to use computer programme 2Ddesign, to design a mini greenhouse. Links with Science topic of plants. Children are to research greenhouses, their function and purpose. Children are to use a computer programme to design a greenhouse from different perspectives (front, side and above.) Children are to consider features that are needed for a greenhouse to make it functional.</p> <p>Children to evaluate their final computer designs.</p>	<p>Textiles: Design and make a pencil case fit for purpose Can you design and make a pencil case fit for purpose?</p> <p>Design and make a pencil case fit for purpose. Experiment with various designs and evaluate these. Choose appropriate decoration for their finished product. Stitching 2D shapes to make a 3D product. Children are to select from a wide range of tools and equipment to perform practical tasks (for example, cutting, shaping, joining and finishing) accurately. Children are to have choice of a wide range of materials and components to use to create their product to ensure it is functional and aesthetic.</p>
<p>Year 4</p>	<p>Cooking and Nutrition Can you make a Mediterranean vegetable dish?</p> <p>Children will be taught:</p> <ul style="list-style-type: none"> to understand and apply the principles of a healthy and varied diet to prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques to understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed <p>Children will prepare and cook a variety of dishes using a range of cooking techniques focusing on Mediterranean dishes – to support and enhance learning developed during Opening World’s topic ‘The Mediterranean.’</p>	<p>Construction: Levers and linkages Can you design a pop up product using levers and linkages?</p> <p>Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups. Select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities. Understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages].</p> <p>Children to evaluate their ideas and products against their own design criteria 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.</p>	<p>Computer Programming Can I design and create a nightlight using a computer programme?</p> <p>Use a computer-programming app (Crumble) to create an electrical system for a nightlight. Children are to use simple circuits and switches including programming and controlling. Children to understand and use electrical systems in their products (for example, series circuits incorporating switches, bulbs, buzzers and motors). Apply understanding of computing to program, monitor and control their products.</p> <p>Children to evaluate their ideas and products against their own design criteria 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.</p>

<p>Year 5</p>	<p>Cooking and Nutrition Can you make a savoury African dish?</p> <p>Children will be taught:</p> <ul style="list-style-type: none"> to understand and apply the principles of a healthy and varied diet to prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques to understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed <p>They will prepare and cook a variety of dishes using a range of cooking techniques focusing on recipes using food traded from slave trade e.g. rice.</p>	<p>Mechanical systems- pulleys and gears/ electrical systems Can you design a moving vehicle with Sphero?</p> <p>Use a computer programming app (Sphero) to create a mechanical/electrical system for a moving vehicle. Children are to use simple circuits and switches including programming and controlling. Apply understanding of computing to program, monitor and control their products. Children to evaluate their ideas and products against their own design criteria 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.</p>	<p>Construction: Shell structures / Computer Aided Design (CAD) Can you use a computer programme to design a small Aztec village, using 3D shapes?</p> <p>Children can create comparisons between Aztec and Modern civilisation. Children to research different aspects of Aztec life and design a 3D Aztec village using 3D shapes on a computer programme (Tinker CAD).</p> <p>Children need to consider features to make each aspect of the Aztec village historically accurate and functional. Children need to use a variety of features on the Tinker CAD software to create their village, considering measurements, scale and accuracy. Children are to develop a clear idea of what has to be done through research and planning.</p> <p>Children to evaluate their ideas and products against their own design criteria 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.</p>
<p>Year 6</p>	<p>Cooking and Nutrition Can you make a popular meal from WW2 times?</p> <p>Children will be taught:</p> <ul style="list-style-type: none"> to understand and apply the principles of a healthy and varied diet to prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques to understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed <p>They will prepare and cook a variety of dishes using a range of cooking techniques focusing on popular food / recipes in Liverpool during WWII</p>	<p>Textiles: Make do and Mend - Cushion Making Can you design and create a cushion and evaluate whether it is fit for purpose?</p> <p>Pupils should be taught to: Investigate recycled material designers. Design a purposeful, functional, appealing cushion cover for themselves or other users based on design criteria. Explain their design and the techniques they use. Join two pieces of fabric together, using a variety of stitches, and attach buttons, beads, and ribbons onto fabric securely. Evaluate a finished piece of work.</p>	<p>Electrical systems: programming Can you use a computer program to program, monitor and control an alarm?</p> <p>Use a computer-programming app (Crumble) to create an electrical system for an alarm. Children are to use simple circuits and switches including programming and controlling. Children to understand and use electrical systems in their products (for example, series circuits incorporating switches, bulbs, buzzers and motors). Apply understanding of computing to program, monitor and control their products.</p>

