



St Anne's Catholic Primary School

'Loving God in all we do'

St Anne's curriculum aims to inspire pupils to learn.

The school's carefully sequenced curriculum provides the opportunities for children to develop their knowledge, understanding and skills in all aspects of their education.

Early Years Foundation Stage Curriculum Physical Development – Design and Technology

Physical Development EYFS Statutory Educational Programme

Gross and fine motor experiences develop incrementally throughout early childhood.

Fine motor control and precision helps with hand-eye co-ordination which is later linked to early literacy.

Through the children's learning opportunities they will explore and play with arts and crafts and the practice of using small tools, with feedback and support from adults, allow children to develop proficiency, control and confidence.

<p>3 and 4-year-olds:</p>	<p><u>Physical Development</u></p> <ul style="list-style-type: none"> • Choose the right resources to carry out their own plan. • Use one-handed tools and equipment, for example, making snips in paper with scissors. <p><u>Expressive Arts and Design</u></p> <ul style="list-style-type: none"> • Make imaginative and complex 'small worlds' with blocks and construction kits, such as a city with different buildings and a park. • Explore different materials freely, in order to develop their ideas about how to use them and what to make. • Develop their own ideas and then decide which materials to use to express them. • Create closed shapes with continuous lines, and begin to use these shapes to represent objects. <p><u>Understanding the World</u></p> <ul style="list-style-type: none"> • Explore how things work. <p><u>Personal, Social and Emotional Development</u></p> <ul style="list-style-type: none"> • Make healthy choices about food and drink.
<p>Reception:</p>	<p><u>Physical Development</u></p> <ul style="list-style-type: none"> • Develop their small motor skills so that they can use a range of tools competently, safely and confidently. <p><u>Expressive Arts and Design</u></p> <ul style="list-style-type: none"> • Explore, use and refine a variety of artistic effects to express their ideas and feelings. • Return to and build on their previous learning, refining ideas and developing their ability to represent them.

	<ul style="list-style-type: none"> • Create collaboratively, sharing ideas, resources and skills. <u>Personal, Social and Emotional Development</u> <ul style="list-style-type: none"> • Know and talk about the different factors that support healthy eating.
End of Reception Early Learning Goals	<u>ELG: Physical Development – Fine Motor Skills</u> <ul style="list-style-type: none"> • Use a range of small tools, including scissors, paintbrushes. <u>ELG: Expressive Arts and Design - Creating with Materials</u> <ul style="list-style-type: none"> • Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function. • Share their creations, explaining the process they have used. <u>ELG: Personal, Social and Emotional Development – Managing Self</u> <ul style="list-style-type: none"> • Understanding the importance of healthy food choices.

National Curriculum Key Stage 1 and 2 Design and Technology

The National Curriculum for Design and Technology

The national curriculum for 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

Aims	Design	Make	Evaluate	Technical Knowledge	Cooking and Nutrition
Year 1	Use pictures and words to convey what they want to design / make. Explore ideas by rearranging materials. Select pictures to help develop ideas.	Select materials from a limited range. Explain what they are making. Name the tools they are using.	Explore existing products and investigate how they have been made (including teacher-made examples). Talk about their design as they develop and identify good and bad points.	Start to use technical vocabulary. Cut out shapes which have been created by drawing round a template. Join materials in a variety of ways.	Group familiar food products e.g. fruit and vegetables. Cut and chop a range of ingredients. Work safely and hygienically. Know about the need for a variety of foods in a diet.

	Use mock-ups e.g. recycled material trial models to try out their ideas.		Say what they like and do not like about items they have made and attempt to say why.	Decorate using a variety of techniques.	
Year 2	<p>Propose more than one idea for their product.</p> <p>Use ICT to communicate ideas.</p> <p>Use drawings to record ideas as they are developed.</p> <p>Add notes to drawings to help explanations.</p>	<p>Discuss their work as it progresses.</p> <p>Select and name the tools needed to work the materials.</p> <p>Explain which materials they are using and why.</p>	<p>Decide how existing products do / do not achieve their purpose.</p> <p>Discuss how closely their finished product meets their own design criteria.</p>	<p>Know some ways of making structures stronger.</p> <p>Show how to stiffen some materials.</p> <p>Know how to make a simple structure more stable.</p> <p>Attach wheels to a chassis using an axle.</p> <p>Know some different ways of making things move in a 2-D plane.</p>	<p>Cut, peel, grate, chop a range of ingredients.</p> <p>Work safely and hygienically.</p> <p>Know about the <i>Eatwell Plate</i>.</p> <p>Understand where food comes from.</p>
Year 3	<p>Develop more than one design or adaptation of an initial design.</p> <p>Plan a sequence of actions to make a product.</p> <p>Think ahead about the order of their work and decide upon tools and materials.</p> <p>Propose realistic suggestions as to how they can achieve their design ideas.</p>	<p>Select from a range of tools for cutting, shaping, joining and finishing.</p> <p>Use tools with accuracy.</p> <p>Select from materials according to their functional properties.</p> <p>Use appropriate finishing techniques.</p>	<p>Investigate similar products to the one to be made to give starting points for a design.</p> <p>Research needs of user.</p> <p>Decide which design idea to develop.</p> <p>Consider and explain how the finished product could be improved.</p> <p>Discuss how well the finished product meets the user's design criteria.</p>	<p>Use an increasingly appropriate technical vocabulary for tools materials and their properties.</p> <p>Understand seam allowance.</p> <p>Prototype a product.</p> <p>Sew on buttons and make loops.</p> <p>Strengthen frames with diagonal struts.</p>	<p>Follow instructions / recipes.</p> <p>Join and combine a range of ingredients.</p> <p>Begin to understand the food groups on the <i>Eatwell Plate</i>.</p>

			Investigate key events and individuals in design and technology.	Measure and mark square section, strip and dowel accurately to 1cm.	
Year 4	Record the plan by drawing using annotated sketches. Use prototypes to develop and share ideas. Consider aesthetic qualities of materials chosen. Use CAD where appropriate.	Prepare pattern pieces as templates for their design. Select from techniques for different parts of the process.	Draw / sketch existing products in order to analyse and understand how products are made. Identify the strengths and weaknesses of their design ideas in relation to purpose / user. Consider and explain how the finished product could be improved. Investigate key events and individuals in design and technology.	Incorporate a circuit into a model. Use electrical systems such as switches bulbs and buzzers. Use ICT to control products. Use linkages to make movement larger or more varied.	Make healthy eating choices – use the <i>Eatwell plate</i> . Understand seasonality. Know where and how ingredients are reared and caught. Prepare and cook using different cooking techniques.
Year 5	Record ideas using annotated diagrams. Use models, kits and drawings to help formulate design ideas. Sketch and model alternative ideas. Decide which design idea to develop.	Develop one idea in depth. Select from and use a wide range of tools. Cut accurately and safely to a marked line. Select from and use a wide range of materials.	Research and evaluate existing products. Consider user and purpose. Consider and explain how the finished product could be improved related to design criteria. Investigate key events and individuals in design and technology.	Use the correct vocabulary appropriate to the project. Join materials using appropriate methods. Create 3-D textile products using pattern pieces. Understand pattern layout with textiles.	Join and combine a widening range of ingredients. Select and prepare foods for a particular purpose. Know where and how ingredients are grown and processed.

<p>Year 6</p>	<p>Plan the sequence of work.</p> <p>Devise step by step plans which can be read / followed by someone else.</p> <p>Use exploded diagrams and cross-sectional diagrams to communicate ideas.</p>	<p>Make prototypes.</p> <p>Use researched information to inform decisions.</p> <p>Produce detailed lists of ingredients / components / materials and tools.</p> <p>Refine their product – review and rework / improve.</p>	<p>Identify the strengths and weaknesses of their design ideas.</p> <p>Report using correct technical vocabulary.</p> <p>Discuss how well the finished product meets the design criteria having tested on/discussed outcomes with the user. Understand how key people have influenced design in a variety of contexts.</p> <p>Investigate key events and individuals in design and technology.</p>	<p>Cut strip wood, dowel, square section wood accurately to 1mm.</p> <p>Build frameworks to support mechanisms.</p> <p>Stiffen and reinforce complex structures.</p> <p>Use mechanical systems such as cams, pulleys and gears. Use electrical systems such as motors and switches.</p> <p>Program, monitor and control using ICT.</p>	<p>Understand and apply the principles of a healthy and varied diet.</p> <p>Choose ingredients to support healthy eating choices when designing their food products.</p> <p>Prepare and cook a variety of mostly savoury dishes using a range of cooking techniques.</p>
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