



Design and Technology Curriculum at Scargill CE Primary School

	Early Years	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
National Curriculum (Essential)	<p>Understanding the world: technology</p> <p>Children recognise that a range of technology is used in places such as homes and schools. They select and use technology for particular purposes.</p> <p>Expressive art and design: exploring and using media and materials</p> <p>Children ... safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function.</p>	<p>When designing and making, pupils should be taught to:</p> <p>Design</p> <ul style="list-style-type: none">• Design purposeful, functional, appealing products for themselves and other users based on design criteria• Generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology <p>Make</p> <ul style="list-style-type: none">• Select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing]• Select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics <p>Evaluate</p> <ul style="list-style-type: none">• Explore and evaluate a range of existing products• Evaluate their ideas and products against design criteria <p>Technical knowledge</p> <ul style="list-style-type: none">• Build structures, exploring how they can be made stronger, stiffer and more stable• Explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products. <p>Cooking and Nutrition</p> <ul style="list-style-type: none">• Use the basic principles of a healthy and varied diet to prepare dishes• Understand where food comes from.		<p>When designing and making, pupils should be taught to:</p> <p>Design</p> <ul style="list-style-type: none">• 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• Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design <p>Make</p> <ul style="list-style-type: none">• Select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately• 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 <p>Evaluate</p> <ul style="list-style-type: none">• Investigate and analyse a range of existing products• 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>Technical knowledge</p> <ul style="list-style-type: none">• Apply their understanding of how to strengthen, stiffen and reinforce more complex structures• Understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages]• Understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors]• Apply their understanding of computing to program, monitor and control their products. <p>Cooking and Nutrition</p> <ul style="list-style-type: none">• Understand and apply the principles of a healthy and varied diet• Prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques• Understand seasonality and know where and how a variety of ingredients are grown, reared, caught and processed.			
Key Learning at Scargill (Guidance)	<ul style="list-style-type: none">• Make a simple plan before making.• Experiments to create different textures.• 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.• Selects tools and techniques needed to shape, assemble and join materials they are using: brush, glue, paint, pins, Sellotape, scissors.• Uses simple tools and techniques competently and appropriately.• Selects appropriate resources and adapts work where necessary.• Recognise that we all need to eat to grow and be healthy• Be aware that we need to eat more of some foods and less of others• With support, are able to eat sociably with others• Recognise the importance of drinking water• Know the importance of brushing teeth twice a day• Understand that food that has been dropped on the floor, touched with dirty hand or has turned mouldy should not be eaten and can make people ill• Understand that some foods need to be washed before they are safe to eat (e.g. fruits and vegetables)	<ul style="list-style-type: none">• Plan before making.• Use self-generated ideas to design something.• Explain to someone else how I want to make my product.• Choose appropriate resources and tools.• Make a product which moves.• Make a model stronger.• Describe how something works.• Understand that we all need a balanced diet to be healthy and active and need to eat more or less of different foods• Are beginning to use the eat well plate• Can eat sociably with others• Understand the importance of water and drinking water regularly• Understand the importance of healthy snacks• Understand the types of food that can affect the health of teeth• With supervision get ready to cook:<ul style="list-style-type: none">• Tie back long hair• Put on a clean apron• Wash and dry hands• Understand how everyday foods are stored differently to ensure they are safe to eat, (e.g. fridge or freezer)• Cut food safely: bridge cut• Know that all food comes from plants or animals and can identify some foods from each group	<ul style="list-style-type: none">• Think of an idea and plan what to do next.• Choose tools and materials and explain why they have been chosen• Join materials and components in different ways.• Measure materials to use in a model or structure, using rulers and scales.• Make a product which uses mechanical components.• Explain what went well with my work.• Explain why I have chosen specific textiles.• Sort ingredients into key food groups.• Explain whether foods are healthy and explain reasoning.• Understand the importance of regular meals and healthy snacks• Independently get ready to cook:<ul style="list-style-type: none">• Tie back long hair• Put on a clean apron• Wash and dry hands• Know that all food comes from plants or animals and can identify foods from each group• Aware that some food packaging has labels giving information	<ul style="list-style-type: none">• Prove that my design meets set design criteria.• Devise a self-created step-by-step plan, with annotated design.• Design a product and explain how it looks attractive.• Choose a material for both its suitability and its appearance.• Select the most appropriate tools and techniques for a given task.• Work accurately to measure, make cuts and make holes.• Evaluate product against original design criteria and identify next steps• Make a product which uses mechanical components.• Describe how food ingredients come together.• Understand what makes a healthy and balanced diet, and that different foods and drinks provide different substances the body needs to be healthy and active.• Understand the importance of keeping hydrated• Understand that food is caught or farmed• Begin to understand appropriate portion sizes for regular meals and healthy snacks• Understand how to keep teeth healthy• Begin to be able to read and understand food labels	<ul style="list-style-type: none">• Use ideas from other people when I am designing.• Produce a plan and explain it.• Evaluate and suggest improvements for my initial designs.• Present a product in an interesting way.• Measure accurately.• Persevere and adapt my work when my original ideas do not work.• Evaluate products for both their purpose and appearance.• Explain how I have improved my original design.• Make a product which uses both electrical and mechanical components• Know the importance of a healthy breakfast• Know how to be both hygienic and safe when using food.• Remember how to keep teeth healthy• Understand that food is caught or farmed and changed to make it safe and palatable / tasty to eat• Understand that people have different views on how food is produced and that this influences the food they buy• Read and understand food labels	<ul style="list-style-type: none">• Come up with a range of ideas after collecting information from different sources.• Produce a detailed, step-by-step plan.• Suggest alternative plans; outlining the positive features and draw backs.• Explain how a product will appeal to a specific audience.• Make a prototype before make a final version.• Use a range of tools and equipment competently.• Evaluate appearance and function against original criteria.• Apply their understanding of computing to program, monitor and control their products (link with computing curriculum).• Show that I can be both hygienic and safe in the kitchen.• Are able to make food choices taking in to consideration the Eatwell plate• Understand the main food groups and the different nutrients that are important for health• Know appropriate portion sizes• Understand some of the basic processes to get food from farm to plate• Understand some of the ethical dilemmas associated with the food people choose to buy• Able to use information on food labels to inform choice• Understand social influences on the food we choose to eat (e.g. media, peer pressure, ethics)	<ul style="list-style-type: none">• Use market research to inform my plans and ideas.• Follow and refine my plans.• Justify my plans in a convincing way.• Show that I consider culture and society in my plans and designs.• Show that I can test and evaluate my products.• Explain how products should be stored and give reasons.• Work within a budget.• Apply their understanding of how to strengthen, stiffen and reinforce more complex structures• Evaluate my product against clear criteria.• Embed the knowledge of appropriate portion sizes• Know the importance of not skipping meals, including breakfast

