Holy Trinity CofE Primary School
Design & Technology Curriculum Overview

Rationale

At Holy Trinity we are aspirational for all children and aim for each child to live life to the full. The design and technology curriculum at Holy Trinity aims to inspire pupils to be innovative and creative thinkers who have an appreciation for the product design cycle through ideation, creation, and evaluation. We want pupils to develop the confidence to take risks, through drafting design concepts, modelling, and testing and to be reflective learners who evaluate their work and the work of others. Through our wide-reaching curriculum, we aim to build an awareness of the impact of design and technology on our lives and encourage pupils to become resourceful, enterprising citizens who will have the skills to contribute to future design advancements.

Structure

Design and Technology is taught in three units per academic year, amounting to approximately 18 lessons each year. We use the Kapow Design & Technology Scheme of work as the basis for our curriculum, adapting lessons to suit the needs of the children. Due to the nature of DT learning, teachers may choose to 'block' a unit of work within their termly timetable. Cooking and Nutrition is included in every year group's programme of study in line with our curriculum offer.

Curriculum Coverage Overview

The scheme covers the full requirements of the National Curriculum and to help show this, the school has assigned a code to each of the National Curriculum objectives to easily reference which ones are covered in each unit of work.

Key Stage One	
Code	**Objective**
NC1a	Design purposeful, functional, appealing products for themselves and other users based on design criteria.
NC1b	Generate, develop, model and communicate their ideas through talking, drawing, templates, mock- ups and, where appropriate, information and communication technology.
NC1c	Select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing].
NC1d	Select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics.
NC1e	Explore and evaluate a range of existing products.
NC1f	Evaluate their ideas and products against design criteria.
NC1g	Build structures, exploring how they can be made stronger, stiffer and more stable.
NC1h	Explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products
NC1i	Use basic principles of a healthy and varied diet to prepare dishes.
NC1j	Understand where food comes from.
Key Stage Two	
Code	**Objective**
NC2a	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.
NC2b	Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer- aided design
NC2c	Select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately.

NC2d	Select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics.
NC2e	Investigate and analyse a range of existing products.
NC2f	Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work.
NC2g	Understand how key events and individuals in design and technology have helped shape the world.
NC2h	Apply their understanding of how to strengthen, stiffen and reinforce more complex structures.
NC2i	Understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages].
NC2j	Understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors].
NC2k	Apply their understanding of computing to program, monitor and control their products.
NC2l	Understand and apply principles of a healthy and varied diet.
NC2m	Prepare and cook variety of predominantly savoury dishes using a range of cooking techniques.
NC2n	Understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed.

Coverage Detail

Design & Technology in EYFS

In EYFS, children will learn Design and Technology as part of the 'Creating With Materials' area of learning. Children in will learn design and technolog through first-hand experiences. They are encouraged to explore, observe, solve problems, think critically, make decisions and talk about why they have made those decisions.

Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
• beginning to mix colours, join in with role play games and use resources available for props; build models using construction equipment. • Self-portraits, junk modelling, take picture of children's creations and record them explaining what they did. • Provide opportunities to work together to develop and realise creative ideas.	• Explore different textures in Firework pictures, Rangoli patterns, Christmas decorations, Christmas cards, • The use of story maps, props, puppets & story bags will encourage children to retell, invent and adapt stories.	• Children will be encouraged to select the tools and techniques they need to assemble materials that they are using • Teach children different techniques for joining materials, such as how to use adhesive tape and different sorts of glue.	• Provide a wide range of props for play which encourage imagination • Make different textures; make patterns using different colours • Children to use their independence to create models of their interest – explain to others what they have made and what they could do to improve in further	**ELG: Creating with Materials** 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; - Make use of props and materials when role playing characters in narratives and stories.	

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Design & Technology in Year 1 – Year 6

	Autumn	Spring	Summer
Year1	Making Puppets	Constructing a Windmill	Smoothies
Year 2	Pouches	Baby Bears Chair	Balanced Diet (Lessons 3-6)
Year 3	Pneumatic Toys	Pavillions	Eating Seasonally
Year 4	Mindful Moments Timer	Posters	Adapting a recipe
Year 5	Pulleys and Gears	Monitoring Devices	Developing a recipe
Year 6	Waistcoats	Steady Hand Game	Come dine with me

	Textiles		Mechanical Systems
	Cooking and Nutrition		Digital World
	Structures		Electrical Systems

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National Curriculum Coverage

	Term	Unit	NC Reference									
			NC1a	NC1b	NC1c	NC1d	NC1e	NC1f	NC1g	NC1h	NC1i	NC1j
Year 1	Autumn	Making Puppets	■	■	■	■		■				
	Spring	Constructing a Windmill	■	■	■	■	■	■	■	■		
	Summer	Smoothies	■	■	■	■		■			■	■
Year 2	Autumn	Pouches	■	■	■	■	■	■				
	Spring	Baby Bear's Chair	■	■	■	■		■	■			
	Summer	Balanced Diet	■	■	■	■	■	■			■	■

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	Term	Unit	NC Reference												
			NC1a	NC1b	NC1c	NC1d	NC1e	NC1f	NC1g	NC1h	NC1i	NC1j	NC2k	NC2l	NC2m	NC2n
Year 3	Autumn	Pneumatic Toys	■	■	■	■	■	■	■		■					
	Spring	Pavillions	■	■	■	■	■	■		■						
	Summer	Eating Seasonally		■	■	■								■	■	■
Year 4	Autumn	Mindful Moments Timer	■		■		■	■					■			
	Spring	Electric Posters	■	■	■	■		■				■				
	Summer	Adapting a Recipe	■	■	■	■	■	■							■	
Year 5	Autumn	Pulleys and Gears	■	■	■	■	■	■			■					
	Spring	Monitoring Devices	■	■				■	■	■			■			
	Summer	Developing a Recipe	■	■	■	■	■	■	■					■	■	■
Year 6	Autumn	Waistcoats	■	■	■	■	■	■								
	Spring	Steady Hand Game	■	■	■	■	■	■	■			■				
	Summer	Come Dine With Me	■	■	■	■		■						■	■	■