



Design and Technology Curriculum Content

Ongoing throughout the year					
Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Nursery Expressive Art and Design 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 Fine Motor Skills - Use a range of small tools, including scissors, paint brushes and cutlery - Begin to show accuracy and care when drawing Managing Self - Understand the importance of healthy food choices.					
Reception Expressive Art and Design 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 Fine Motor Skills - Use a range of small tools, including scissors, paint brushes and cutlery - Begin to show accuracy and care when drawing Managing Self - Understand the importance of healthy food choices.					

The following grids give a more detailed overview of the National Curriculum content in each of the Design and Technology units of work.

YEAR 1		
Term	Topic	By the end of the unit, children will learn to:
Autumn 1		
Autumn 2	Structures (Free Standing)	Design • 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 Make • select from and use a range of tools and equipment to perform practical tasks • select from and use a wide range of materials and components, including construction materials and textiles, according to their characteristics Evaluate • explore and evaluate a range of existing products • evaluate their ideas and products against design criteria Technical knowledge • build structures, exploring how they can be made stronger, stiffer and more stable
Spring 1		
Spring 2	Mechanisms (Sliders & Levers)	Design • 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 Make • select from and use a range of tools and equipment to perform practical tasks • select from and use a wide range of materials and components, including construction materials and textiles, according to their characteristics • explore and evaluate a range of existing products • evaluate their ideas and products against design criteria Evaluate • explore and evaluate a range of existing products • evaluate their ideas and products against design criteria

		Technical knowledge • explore and use mechanisms	
Summer 1			
Summer 2	Food (Preparing fruit and vegetables) Fruit Salad	Design • 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 Make • select from and use a range of tools and equipment to perform practical tasks • select from and use a wide range of ingredients, according to their characteristics Evaluate • explore and evaluate a range of existing products • evaluate their ideas and products against design criteria Cooking and Nutrition • use the basic principles of a healthy and varied diet to prepare dishes • understand where food comes from	

YEAR 2

Term	Topic	By the end of the unit, children will learn to:	
Autumn 1	Making Fire Engines – Axles (2023/2024)	Design • 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 Make • select from and use a range of tools and equipment to perform practical tasks • select from and use a wide range of materials and components, including construction materials and textiles, according to their characteristics Evaluate • explore and evaluate a range of existing products • evaluate their ideas and products against design criteria Technical knowledge • build structures, exploring how they can be made stronger, stiffer and more stable • explore and use mechanisms	
Autumn 2			
Spring 1	Moving Pictures – sliding mechanisms	Design • 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 Make • select from and use a range of tools and equipment to perform practical tasks • select from and use a wide range of materials and components, including construction materials and textiles, according to their characteristics Evaluate • explore and evaluate a range of existing products • evaluate their ideas and products against design criteria Technical knowledge	

		• explore and use mechanisms, in their products.	
Spring 2			
Summer 1	Preparing Fruit and Vegetables Fruit smoothie	Design • 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 Make • select from and use a range of tools and equipment to perform practical tasks • select from and use a wide range of ingredients, according to their characteristics Evaluate • explore and evaluate a range of existing products • evaluate their ideas and products against design criteria Cooking and Nutrition • use the basic principles of a healthy and varied diet to prepare dishes • understand where food comes from	
Summer 2			

YEARS 3 and YEAR 4

Term	Topic	By the end of the unit, children will learn to:
Autumn 1	Structures – shelters: Waterproof shelter for teddy	Design • 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 Make • 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 Evaluate • 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 Technical knowledge apply their understanding of how to strengthen, stiffen and reinforce more complex structures
Autumn 2		
Spring 1	Mechanical systems: Cams	Design • 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 Make • select from and use a wider range of tools and equipment to perform practical tasks, accurately • select from and use a wider range of materials and components, including construction materials and textiles, according to their functional properties and aesthetic qualities Evaluate

		- 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 Technical knowledge understand and use mechanical systems in their products
Spring 2		
Summer 1	Food - celebrating culture:	Design - 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 and computer-aided design Make - select from and use a wider range of tools and equipment to perform practical tasks, accurately - select from and use a wider range of ingredients, according to their functional properties and aesthetic qualities Evaluate - 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
	Scones & CAD	Cooking and Nutrition - 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.
Summer 2		

YEAR 5 and YEAR 6

Term	Topic	By the end of the unit, children will learn to:
Autumn 1	Textiles - combining fabrics and shapes, stitching: Pucker People	Design • 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 and computer-aided design Make • select from and use a wider range of tools and equipment to perform practical tasks, accurately • select from and use a wider range of materials and components, including construction materials and textiles, according to their functional properties and aesthetic qualities Evaluate • 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 Technical knowledge • apply their understanding of how to strengthen, stiffen and reinforce more complex structures
Autumn 2		
Spring 1		
Spring 2	Food - celebrating culture & seasonality	Design • 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 and computer-aided design Make • select from and use a wider range of tools and equipment to perform practical tasks, accurately • select from and use a wider range of ingredients, according to their functional properties and aesthetic qualities Evaluate • 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

	& Tinker CAD: Biscuits	Cooking and Nutrition • 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.
Summer 1		
Summer 2	Mechanical systems Pulleys & gears: Fairground ride	Design • 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 Make • select from and use a wider range of tools and equipment to perform practical tasks, accurately • select from and use a wider range of materials and components, including construction materials and textiles, according to their functional properties and aesthetic qualities Evaluate • 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 Technical knowledge • apply their understanding of how to strengthen, stiffen and reinforce more complex structures understand and use mechanical systems in their products