

Purpose of Study [from National Curriculum]:

Design and technology is an inspiring, rigorous and practical subject. Using creativity and imagination, pupils design and make products that solve real and relevant problems within a variety of contexts, considering their own and others' needs, wants and values. They acquire a broad range of subject knowledge and draw on disciplines such as mathematics, science, engineering, computing and art. Pupils learn how to take risks, becoming resourceful, innovative, enterprising and capable citizens. Through the evaluation of past and present design and technology, they develop a critical understanding of its impact on daily life and the wider world. High-quality design and technology education makes an essential contribution to the creativity, culture, wealth and well-being of the nation.



Whitecote Curriculum Intent Statement:

DT should provide children with a real-life context for learning. At Whitecote we want to inspire children to be more. Creating opportunities for them in the wider world to use after their time at Whitecote. As an inspiring and practical subject, through the DT curriculum children should be inspired by engineers, designers, chefs and architects to enable them to create a range of structures, mechanisms, textiles, electrical systems and food products with a real-life purpose. It encourages children to become independent, creative problem solvers, thinking as individuals and as part of a team.

Aims [from National Curriculum]:

- 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.

Subject Core Concepts	Suggested Cognitive Strategies
<p>The core concepts, taken from the aims of the curriculum, will be used to inform suggested sequences of learning and focus the learners on the principle aims of effective subject-specific understanding:</p> <ul style="list-style-type: none"> • Solution and Problem Solving: Making for a purpose, practicality and working on a brief. • Innovation: Making something new using their creativity/imagination. • Lifestyle: Creating skills for later life to improve their physical and mental wellbeing. • Process: Breaking down a project into smaller more manageable chunks. • Competence: Rehearsal and practice of basic skills. • Experimentation and improvement: Experimenting with different and new materials, making improvements where necessary. 	<p>The Whitecote cognitive strategies are suggested strategies that might be used across the subject's curriculum to allow them to internalise and retain knowledge. These will be modelled during CPD:</p> <ul style="list-style-type: none"> • Guided Practice: Giving a further explanation, children attempting the new skills under guidance. • Independent Practice: Children use the new learning strategy in context, practising the new skill. • Structured reflection: Evaluate the approach and its effectiveness.



Design and Technology Intent and Coverage LTP

	National Curriculum	
EYFS	<p>ELG: Creating with Materials Children at the expected level of development will:</p> <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; • Make use of props and materials when role playing characters in narratives and stories. 	In addition, Whitecote pupils will be taught: <ul style="list-style-type: none"> • About safe practices around food preparation, including the importance of regular handwashing;
Key Stage 1	<p>Through a variety of creative and practical activities, pupils should be taught the knowledge, understanding and skills needed to engage in an iterative process of designing and making. They should work in a range of relevant contexts [for example, the home and school, gardens and playgrounds, the local community, industry and the wider environment].</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. 	In addition, Whitecote pupils will be taught: <ul style="list-style-type: none"> •



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National Curriculum		
Key Stage 2	<p>Through a variety of creative and practical activities, pupils should be taught the knowledge, understanding and skills needed to engage in an iterative process of designing and making. They should work in a range of relevant contexts.</p> <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 	<p>In addition, Whitecote pupils will be taught:</p> <ul style="list-style-type: none"> •



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	National Curriculum	
	<p>techniques</p> <ul style="list-style-type: none"> understand seasonality and know where and how a variety of ingredients are grown, reared, caught and processed. 	

Topic Coverage per Year Group				
Year Group	Autumn		Spring	Summer
Nursery				
Reception	Cooking & Nutrition: Fruit Salad		Cooking & Nutrition: Vegetable Sticks and Dip Toy Construction	Stripy Salad Pots Animal Environment Construction
1	Castle Building – <i>Fortification, Walls, Details (Provision)</i> Wheeled Vehicle (Axels) and Wheeled Catapult	Cooking & Nutrition <i>Egg muffins</i>	Building Transport – Floating (on water), Flying (gliding – with wings) [slider for a flag] Cooking & Nutrition <ul style="list-style-type: none"> <i>Healthy Eating: oat, fruit & yoghurts</i> 	Cooking & Nutrition <ul style="list-style-type: none"> <i>Healthy Eating: Fruit Kebabs</i>
2	Cooking & Nutrition <ul style="list-style-type: none"> <i>Recipes and Ingredients: Baking Biscuits</i> Building London – Pre GFOL and Rebuilding After (3D Net) (Workshop) <ul style="list-style-type: none"> Build ‘Ways to Carry Water’ – <i>fire extinguishing</i> 		Sliders and Spinners Cooking & Nutrition <ul style="list-style-type: none"> <i>Food Preparation: Vegetable Cous Cous</i> 	Alien Puppets – Perform a Space Show (<i>Punch and Judy style</i>) Build Rockets with Air Propulsion Cooking & Nutrition <ul style="list-style-type: none"> <i>Toast</i>
3	Iron Age Village Cooking & Nutrition <ul style="list-style-type: none"> Ham and Onion Rostis 		Cooking & Nutrition <ul style="list-style-type: none"> <i>Sandwiches</i> Pyramids around the World: Mayan / Egyptian – Straw and Clay Modelling (Frame)	Textile Work <ul style="list-style-type: none"> <i>Making Greek Togas</i> Cooking and Nutrition <ul style="list-style-type: none"> <i>Greek Cuisine: Salad</i>



Design and Technology Intent and Coverage LTP

Topic Coverage per Year Group			
Year Group	Autumn	Spring	Summer
4	Construction & Architecture – Roman Town <ul style="list-style-type: none"> <i>Bridges, Viaducts, Arches (Keystone), Walls</i> Woodwork <ul style="list-style-type: none"> <i>Frames to hold Roman Mosaics</i> Cooking and Nutrition <ul style="list-style-type: none"> <i>Italian Cuisine – Pizzas and Pizza Dough</i> 	Construction Sun Dials Textiles <ul style="list-style-type: none"> <i>Toys – Sewing</i> Cooking & Nutrition <i>Cheese Scones</i>	Textiles cont'd <ul style="list-style-type: none"> <i>Toys- circuits</i> Cooking & Nutrition <ul style="list-style-type: none"> <i>Soup</i>
5	Wattle and Daub – Build a Model Viking Village Cooking & Nutrition <ul style="list-style-type: none"> <i>Raisin and Banana Cookies</i> 	Construction & Architecture <ul style="list-style-type: none"> <i>Build a working castle – moat, drawbridge, arrow loops, battlements, raised flag</i> Cooking & Nutrition <ul style="list-style-type: none"> <i>Mushroom & Chickpea Curry</i> 	Build Lunar Rover Vehicle – <i>to land safely (forces), collect samples (levers), move (wheels)</i> Cooking & Nutrition <ul style="list-style-type: none"> <i>Hummus</i>
6	Mechanisms: Levers, pulleys, winches – for a purpose <ul style="list-style-type: none"> <i>Links to Industrial Revolution machinery</i> Cooking & Nutrition <ul style="list-style-type: none"> <i>Baking Bread</i> 	Electrical Systems <ul style="list-style-type: none"> <i>Fairground Rides- computer programming, gears/pulleys</i> <i>Moving vehicles (Battle Tanks and Ambulances – World War Linked)</i> Cooking & Nutrition <ul style="list-style-type: none"> <i>World War II Cake</i> 	Electrical Systems <ul style="list-style-type: none"> <i>Fairground Rides (Cont'd)</i> Cooking & Nutrition <ul style="list-style-type: none"> <i>Exotic Creations</i> <i>Pasta</i>

Pedagogical Sequence of Learning: Making a product		
#	Phase	Explanation
1	Brief:	Understand design brief and success criteria required to create product. Understand the purpose of the product and its audience.



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Pedagogical Sequence of Learning: Making a product		
#	Phase	Explanation
2	Process:	Discuss the process / sequence of learning. Consider skills that a design artist needs.
3	Metacognition:	Understand what skills a design and technologist needs to assess they understand the process. Make a plan as to how we will tackle the brief and how we will review success.
4	Examine:	Examine pre-existing versions and discuss how they were made, and the materials used to make them.
5	Rehearsal:	Practice basic skills techniques to support making stage.
6	Plan:	Create plans of the intended product, listing resources and possible techniques.
7	Make:	Make the product using learnt techniques, using the plan as reference. Evaluate the process throughout, justifying any changes.
8	Evaluate:	Evaluate the product against its intended purpose and success criteria.
9	Improve:	Make additional changes based on a final evaluation

National Curriculum Content Coverage per Topic, Term, and Year Group



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	Autumn	Spring	Summer
Year 1	Castles, Knights and Dragons	Great Explorers	The Seaside
Product	Wheeled Vehicle (Axels and Catapults)	Building Transport – Floating, Gliding, Sliders (Flags)	Fruit Kebabs
Food	Egg Muffins	Oat/Fruit Yoghurt	As Above
N.C coverage (bold key skill(s) covered in this unit)	<p>Technical Knowledge explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products.</p> <p>Design design purposeful, functional, appealing products for themselves and other users based on design criteria</p> <p>generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology</p> <p>Make select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing]</p> <p>select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics</p> <p>Evaluate explore and evaluate a range of existing products</p> <p>evaluate their ideas and products against design criteria</p> <p>Cooking & Nutrition use the basic principles of a healthy and varied diet to prepare dishes</p>	<p>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</p> <p>Make Select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing]</p> <p>Technical Knowledge Explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products</p> <p>Cooking & Nutrition <i>Use the basic principles of a healthy and varied diet to prepare dishes</i></p>	<p>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</p> <p>Make 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> <p>Cooking & Nutrition Use the basic principles of a healthy and varied diet to prepare dishes</p>



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	Autumn	Spring	Summer
Year 2	London	Arctic	Space
Product	Biscuits	Sliders/Spinners	Puppets
Food	As Above	Couscous	Tasty Toast
<p><i>N.C coverage (bold key skill(s) covered in this unit)</i></p>	<p>Design <i>Design purposeful, functional, appealing products for themselves and other users based on design criteria.</i> Generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology</p> <p>Make Select from and use a range of tools and equipment to perform practical tasks [for example, <i>cutting, shaping, joining and finishing</i>] Select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics</p> <p>Evaluate Explore and evaluate a range of existing products. Evaluate their ideas and products against design criteria</p> <p>Cooking and Nutrition <i>Use the basic principles of a healthy and varied diet to prepare dishes understand where food comes from.</i></p>	<p>Design Design purposeful, functional, appealing products for themselves and other users based on design criteria. <i>Generate, develop, model and communicate their ideas through talking, drawing,</i> templates, mock-ups and, where appropriate, information and communication technology</p> <p>Make Select from and use a range of tools and equipment to perform practical tasks [for example, <i>cutting, shaping, joining and finishing</i>] Select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics</p> <p>Evaluate Explore and evaluate a range of existing products. Evaluate their ideas and products against design criteria</p> <p>Technical knowledge 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> <p>Cooking and Nutrition <i>Use the basic principles of a healthy and varied diet to prepare dishes understand where food comes from.</i></p>	<p>Design <i>Design purposeful, functional, appealing products for themselves and other users based on design criteria.</i> <i>Generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups</i> and, where appropriate, information and communication technology</p> <p>Make Select from and use a range of tools and equipment to perform practical tasks [for example, <i>cutting, shaping, joining and finishing</i>] Select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics</p> <p>Evaluate <i>Explore and evaluate a range of existing products. Evaluate their ideas and products against design criteria</i></p> <p>Technical knowledge Build structures, exploring how they can be made stronger, stiffer and more stable, <i>explore and use mechanisms</i> [for example, levers, <i>sliders</i>, wheels and axles], in their products.</p> <p>Cooking and Nutrition <i>Use the basic principles of a healthy and varied diet to prepare dishes understand where food comes from.</i></p>
Year 3	Iron Age	Ancient Egypt	Ancient Greece



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	Autumn	Spring	Summer
Product	Iron Age Village	Sandwiches	Greek Togas
Food	Ham and Potato Rosti	As Above	Hummus
<p><i>N.C coverage (bold key skill(s) covered in this unit)</i></p>	<p>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</p> <p>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.</p> <p>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</p> <p>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.</p>	<p>Design <i>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.</i> Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design</p> <p>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.</p> <p>Evaluate <i>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.</i> Understand how key events and individuals in design and technology have helped shape the world</p> <p>Cooking and Nutrition <i>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</i></p>	<p>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. <i>Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design</i></p> <p>Make <i>Select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately.</i> 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> <p>Evaluate Investigate and analyse a range of existing products. <i>Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work.</i> Understand how key events and individuals in design and technology have helped shape the world</p> <p>Technical knowledge <i>Apply their understanding of how to strengthen, stiffen and reinforce more complex structures.</i> Understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers</p>



Design and Technology Intent and Coverage LTP

	Autumn	Spring	Summer
		<i>know where and how a variety of ingredients are grown, reared, caught and processed.</i>	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. Cooking and Nutrition <i>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.</i> Understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed.
Year 4	From Stone Age to Iron Age	The Romans	Haworth
Product	Mosaic Frames (Link to Art)	Toys – Sewing	Toys – Circuits (Cont'd)
Food	Italian Cuisine – Pizzas and Pasta Dough	Cheese Scones	Soup (Project)
N.C coverage (bold key skill(s) covered in this unit)	<p>Design <i>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.</i> Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design</p> <p>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.</p>	<p>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</p> <p>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.</p>	<p>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, <i>prototypes, pattern pieces</i> and computer-aided design</p> <p>Make Select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and <i>finishing</i>], accurately. Select from and use a wider range of materials and components, including construction materials, <i>textiles</i> and ingredients, according to their functional properties and aesthetic qualities.</p>



Design and Technology Intent and Coverage LTP

	Autumn	Spring	Summer
	<p>Technical knowledge 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, <i>series circuits incorporating switches, bulbs, buzzers and motors</i>] <i>Apply their understanding of computing to program, monitor and control their products.</i></p> <p>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.</p>	<p>Evaluate Investigate and analyse a range of existing products. <i>Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work.</i> Understand how key events and individuals in design and technology have helped shape the world</p> <p>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.</p>	<p>Evaluate Investigate and analyse a range of existing products. <i>Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work.</i> Understand how key events and individuals in design and technology have helped shape the world</p> <p>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.</p>
Year 5	Vikings	British Monarchy	Space
Product	Viking Homes (Wattle and Daub)	Castles	Lunar Vehicle
Food	Raisin and Banana Cookies	Mushroom and Chickpea Curry	Hummus
<i>N.C coverage (bold key skill(s) covered in this unit)</i>	<p>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 <i>discussion, annotated sketches</i>, cross-sectional and exploded <i>diagrams, prototypes</i>, pattern pieces and computer-aided design</p> <p>Make Select from and use a wider range of tools and equipment to perform practical tasks [for example, <i>cutting, shaping, joining</i> and finishing], accurately.</p>	<p>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 <i>discussion, annotated sketches</i>, cross-sectional and exploded <i>diagrams, prototypes</i>, pattern pieces and computer-aided design</p> <p>Make Select from and use a wider range of tools and equipment to perform practical tasks [for example, <i>cutting, shaping, joining</i> and finishing], accurately.</p>	<p>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 <i>discussion, annotated sketches</i>, cross-sectional and exploded <i>diagrams, prototypes</i>, pattern pieces and computer-aided design</p> <p>Make Select from and use a wider range of tools and equipment to perform practical tasks [for example, <i>cutting, shaping, joining and finishing</i>], accurately.</p>



Design and Technology Intent and Coverage LTP

	Autumn	Spring	Summer
	<p>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> <p>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</p> <p>Technical knowledge 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> <p>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.</p>	<p>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> <p>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</p> <p>Technical knowledge 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> <p>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.</p>	<p>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> <p>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</p> <p>Technical knowledge Apply their understanding of how to strengthen, stiffen and reinforce more complex structures. Understand and use mechanical systems in their products [for example, gears, <i>pulleys</i>, 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>
Year 6	The Victorians	World War 2	Around the World
Product	Bread	Fairground Rides	Fairground Rides
Food	As Above	WW2 Cake	Pasta
N.C coverage	Design	Design	Design



Design and Technology Intent and Coverage LTP

	Autumn	Spring	Summer
<p>(bold key skill(s) covered in this unit)</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. Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design</p> <p>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.</p> <p>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</p> <p>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.</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. Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design</p> <p>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.</p> <p>Technical knowledge 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> <p>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</p> <p>Cooking and Nutrition</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. Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design</p> <p>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.</p> <p>Technical knowledge 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> <p>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</p> <p>Cooking and Nutrition</p>



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Tier 2 Vocabulary

Children need to know, understand and use the relevant vocabulary for their age group by the end of the year and will be provided with opportunity throughout the year. This list is cumulative and should be revisited and built upon each year.

Reception	Year 1		Year 2		Year 3		Year 4		Year 5		Year 6	
Design Evaluate Wheels Axel Make Purpose Structure Stiffen	Strengthen Criteria Templates Measure Improve Ingredients Grip Brief	Mix Weigh Scrape Spatula Combine Design Taste Scales Jug	Liquid Millilitres Grams Spread Cut Chop Slice Quarters Serve	Grate Peel Snip Mix Shape Cook Drain Juice Blitz	Mix Dip Materials Sew Sticth Thread Needle Felt	Circuit Prototype Switch Hob Vegetables Season Taste Heat		Jinx Corner Saw Mechanism Joining Purpose Pop-ip Book Model Bridge	Clas Chop Combine De-seed	Bread Dough Knead Shape Rise Cook Gear Pulley Tech Card Dice	Driver Follower Motor Spindle Component Kit Dissolve Melt Drain Stir	

Useful Websites

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