



Preston Primary School

Curriculum Design for Design and Technology

Design and Technology INTENT

At Preston Primary School, it is our intent for our Design and Technology curriculum to offer all children the chance to use both creative and critical thinking to design within a defined purpose with a tangible outcome. Through the teaching of the knowledge, skills and understanding from the National Curriculum, we provide pupils with a high-quality Design and Technology education which inspires pupils' curiosity about the ever-changing and developing world that they live in. Our aim is for pupils to be inquisitive problem solvers who can adapt and apply their prior knowledge in an ever-changing world. During Design and Technology lessons, pupils will follow a continuous process of Design, Make, Evaluate to help them: produce products, be curious, imaginative, creative and reflective, be confident to 'have a go' and demonstrate resilience. Our Design and Technology curriculum encourages children to 'learn to think', enabling them to solve practical problems, use critical thinking and be able to take risks when tackling new challenges both as an individual and through teamwork. We encourage children to use their creativity and imagination to design and make products that solve real and relevant problems within a variety of contexts, considering their own and others' needs, wants and values. 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. Pupils learn how to take risks, becoming resourceful, innovative, enterprising and capable citizens. Wherever possible, we link Design and Technology to other disciplines such as mathematics, science, computing and art. The Design and Technology curriculum is designed to develop knowledge and skills that are progressive, as well as transferrable not just throughout their time at Preston but beyond into further education and the world of work.

Design and Technology IMPLEMENTATION

In our teaching we use an enquiry-based approach and objectives are delivered through long and short enquiries. The key concepts for Design and Technology – design, make and evaluate - are taught in every Long Enquiry and the specific technical knowledge and skills of cooking and nutrition, textiles, structures, mechanism, electrical systems and IT (KS2) are carefully planned by creating a medium-term plan using OneNote to ensure coverage, continuity and progress in learning. The curriculum makes use of prior knowledge and provides clear references on how learning will be used in future enquiries. Every child regardless of their barriers to learning, achieve and understand the full Design and Technology curriculum. Technical knowledge and key vocabulary are explicitly identified in each enquiry and this is made clear to the children through our knowledge organisers. Every child has a copy of the Design Make Evaluate model and Knowledge Organiser in their books and these are shared with parents. Children are given a quiz at the end of each enquiry to ensure they have learned the identified knowledge. These scores are recorded and used to consider future teaching needs. To support pupils to know and remember more, concepts are taught in a cyclical learning approach, each year, with teachers referring to the learning of these concepts in previous years.

Design and Technology IMPACT

Impact of teaching and learning will be determined through subject monitoring, SLT reviews and Kahoot quizzes. We will know if we have planned carefully for progress and achievement if children have met their 'end points' or age-specific national expectations for pupils at the end of Key Stage 1 and again at the end of Key Stage 2. We will know if children have made progress if they can talk confidently about the areas and enquiries, they have studied using knowledge organisers. Learning will be successful if it is able to be retrieved from pupil's long-term memory and be further built upon.

Meeting the needs of our disadvantaged children, including Children Looked After, those eligible or Pupil Premium funding and those with SEND

As with all subjects in the curriculum every child has the right to an ambitious and progressive curriculum. Any barriers that might arise need to be addressed in order for the child to achieve their full potential in Design and Technology. Due to the progressive nature of the Knowledge, Skills and Understanding from EYFS to Year 5/6 there is a clear framework in which to support the child by developing their learning to an appropriate level for their specific and individual needs. Design and Technology can provide a practical method of communication which also supports children in this field. We aim to provide essential knowledge, experiences, and opportunities to all children, particularly the most disadvantaged, as part of developing cultural capital to prepare them for future success. While teaching Design and Technology, teachers will prioritise familiar powerful strategies, like scaffolding and explicit instructions, to support pupils with SEND. This means understanding the needs of specific pupils and weaving specific approaches into every day, high quality classroom teaching- being inclusive by design not as an afterthought.

Curriculum Organisation

Our Design and Technology curriculum follows a progression of skills which focuses on a design, make, evaluate cycle and is organised into the following main themes: Cooking and Nutrition, Structures, Mechanisms, Textiles, Electrical Systems and IT. There is an expectation that children will use their prior learning and build upon this as they journey through Preston School. Children will reach an **end point** where their understanding of the world has been strengthened and deepened through this purposefully mapped out curriculum.

Cycle A	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Unit 1 FS (One Year Cycle)	Construction and small world animal play. Exploring different shaped building blocks. Baking bread in the woodland camp linked to the story, The Little Red Hen.	Cooking; Teddy's picnic on the moon linked to the story, Whatever Next. Make Stickmen, thinking of ways to join the sticks together.	Structures and mechanisms: Lego Discover Programme and construction area. Explore the variety of materials at the 'Make and Do' table. Be able to talk about the material choices. Make a lift the flap picture.	Make a Gingerbread Man with moving parts. Bake Gingerbread Men.	Design make and evaluate a sculpture of an animal. Design make and evaluate healthy smoothies.	
	Use a variety of tools safely.					
Unit 2 Year 1 & 2	SE - Cooking and Nutrition: Understand where food comes from, and what a healthy diet is.		LE – Mechanical Systems: Create a moving picture using levers and/or sliders.	LE – Structures: The Three Little Pigs – Building structures which can be made stronger, stiffer and more stable.		
Unit 3 Year 3 & 4			LE - Electrical Systems: Design, make and evaluate an electrical circuit, which is fit for purpose. <ul style="list-style-type: none"> Brixham Lighthouse – Local Link. 	LE - Mechanical Systems: Design, make and evaluate a moving picture book using mechanisms such as levers and linkages <ul style="list-style-type: none"> Anglo-Saxon Book. 		

			<ul style="list-style-type: none"> Notable inventor: Thomas Edison 	SE - Cooking and Nutrition – Understand and apply the principles of a healthy and varied diet. Understand seasonality and know where and how a variety of ingredients are grown, reared, caught, and processed.		
Unit 4 Year 5 & 6			LE – Cooking and Nutrition: Design, make and evaluate a savoury dish. Make soup using ethically sourced and seasonal produce, which is affordable.	LE- Mechanical Systems: Make a functional product using mechanisms including axels/wheels/gears. <ul style="list-style-type: none"> Moon Buggy 		SE – Structures: Evaluate existing earthquake-proof structures. Deciding on what designs and materials are best. <ul style="list-style-type: none"> Notable Figure: Architect – Normal Foster

Cycle B	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Unit 2 Year 1 & 2	SE - Structures: Three Billy Goats Gruff: build a bridge which can be made stronger, stiffer and more stable to hold three billy goats.	LE - Cooking and Nutrition: Basic principles of a healthy varied diet. Costing, choosing and creating a healthy pizza.		LE – Textiles: Cutting, shaping, joining and finishing materials to create a functional and appealing product. <ul style="list-style-type: none"> Puppets 		
Unit 3 Year 3 & 4	SE - Mechanical Systems: Design, make and evaluate a functional and appealing product with a pulley mechanism. Flag for our Woodland Camp.	LE - Cooking and Nutrition: Compare local savoury dishes to cooking from a different culture [Egypt]. Design, make and evaluate your own Egyptian dish.		LE – Structures: Design, make and evaluate a shell structure to package a product.		
Unit 4 Year 5 & 6		LE – Textiles:	SE – Cooking and Nutrition:	LE – Electrical Systems and IT:		

		Design, make and evaluate a functional and appealing product, using market research, questionnaires, and surveys. <ul style="list-style-type: none"> Slippers 	Compare savoury South American food to savoury food in the UK.	Use computer-aided design to design a solution for a pollution-related problem (TinkerCad) Design Thinking for Pollution Problems Tinkercad		
--	--	--	--	---	--	--

End Points and Expectations

We will use the benchmarking expectations in ‘Design and Technology Progression Framework’ produced by the Design and Technology Association, to help plan an engaging and challenging key stage that provides opportunities for pupils to make progress. We will assess three aspects of achievement in Design and Technology:

- **Design** – Developing, planning and communicating ideas.
- **Make** – Working with tools, equipment, materials and components to make quality products.
- **Evaluate** – Evaluating processes and products.

Opportunities to assess are built into our curriculum plans. We will use the benchmark statements to inform and set expectations for pupils’ achievement and to create assessment criteria in the individual teaching units. We will provide formative day to day assessment, end of long or short enquiry assessments which may be quizzes, short tests or purposeful assessment tasks which may be labelling a diagram or answering an open ended, rich question.

There is an expectation SLT and leaders will monitor the subject by looking at books, quizzes and assessment tasks as well as talking to children about their learning at the end of a short or long enquiry. Leaders will provide continuing professional development that is aligned with the curriculum and will build colleagues content knowledge as well as ensure a familiarity with classroom practice across the school.

By the end of Key Stage 1, expectations by age 7, children will:		By the end of Key Stage 2, expectations by age 11, children will build on their prior knowledge and extend this further. Children will:	
Design - developing planning and communicating ideas.			
• Demonstrate understanding of planning and design to develop high-quality prototypes, meals and products for a wide range of users.			
✓ Design purposeful, functional and appealing products. ✓ Generate, develop, model and communicate their ideas through discussions and sketches.		✓ Use research and develop design criteria to inform the design of innovative, functional and appealing products, that are fit for purpose. ✓ Generate, develop, model and communicate their ideas through discussions, annotated sketches, diagrams and prototypes.	

By the end of Key Stage 1, expectations by age 7, children will:		By the end of Key Stage 2, expectations by age 11, children will build on their prior knowledge and extend this further. Children will:	
Make – Working with tools, equipment, materials and components to make quality products.			
• Using own designs and plans to bring products to fruition.			
<ul style="list-style-type: none">✓ 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 material, textiles and ingredients, according to their characteristics.✓ Build structures exploring how they can be made stronger, stiffer and more stable.✓ Explore and use mechanisms in their products.		<ul style="list-style-type: none">✓ Select from and use a wider range of tools and equipment to perform practical tasks.✓ Select from and use a wider range of materials and components, including construction material, textiles and ingredients, according to their functional properties and aesthetic qualities.✓ Apply their understanding of how to strengthen, stiffen and reinforce more complex structures.✓ Understand and use mechanical systems in their products.✓ Understand and use electrical systems in their products.	

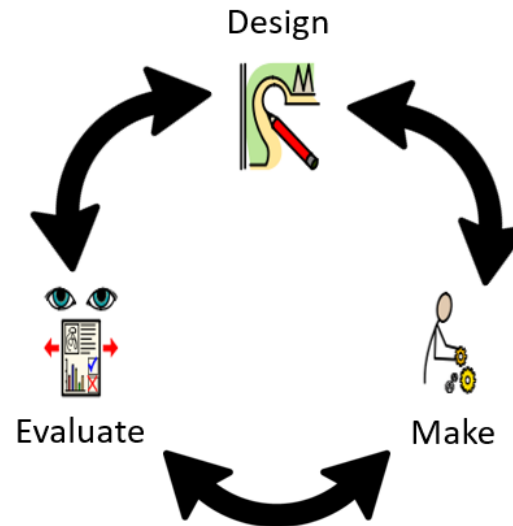
By the end of Key Stage 1, expectations by age 7, children will:		By the end of Key Stage 2, expectations by age 11, children will build on their prior knowledge and extend this further. Children will:	
Evaluate – evaluating processes and products.			
• Critique, evaluate and test their ideas and products and the work of others			
✓ Explore and evaluate a range of existing products. ✓ Evaluate their ideas and products against a design criteria.		✓ Investigate and analyse a range of existing products. ✓ Evaluate their ideas and products against a design criteria, considering the views of others to improve their work. ✓ Understand how key events and individuals in design and technology have helped shape the world.	

Early Years Foundation Stage

The main areas of learning that support the development of children's Design and Technology knowledge and understanding are drawn from the following areas of the Early Years Foundation Stage; Personal Social and Emotional Development, Physical Development, Understanding the World and Expressive Arts and Design. There are also close links with the Characteristics of Effective Teaching and Learning (CoETL); Playing and Exploring, Active Learning and Creating and Thinking Critically.

	Knowledge, Skills and Understanding for Design and Technology in EYFS
Foundation Stage	<p>Our Design and Technology curriculum enables all children to explore learning behaviours through the Characteristics of Effective Teaching and Learning. They will use these skills in meaningful contexts and be able to apply them in other areas of learning.</p> <p>Playing and Exploring: children investigate and experience things, and 'have a go'.</p> <p>Active Learning: children concentrate and keep on trying if they encounter difficulties and enjoy achievements.</p> <p>Creating and Thinking Critically: Children have and develop their own ideas, make links between ideas, and develop strategies for doing things.</p> <p>Children will have the confidence to take risks when tackling new challenges and be curious and creative to solve simple problems practically. They will know and identify similarities and differences in a range of materials. They will know that different technology and tools are used to make different products and can select these appropriately for tasks. They will experiment with colour, design, texture form and function. Children will begin to use simple equipment safely and effectively.</p> <p>Children will participate in small group, class and one to one discussions, offering their own ideas, using recently introduced vocabulary. Children will share their creations, explaining the process they have used.</p> <p>The individual needs, interests and development of each child are used to plan a challenging and rich curriculum.</p>

Key Concepts in Design and Technology - Design Make Evaluate Model



At Preston Primary School, we follow the continuous learning model of design, make and evaluate in Design and Technology. All of our Long Enquiry teaching, learning and independent or group practice follows this model.





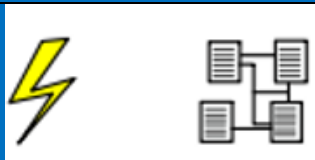
At the beginning of every Long Enquiry, children are given design criteria of the precise goals that a project must achieve to be successful. Children will begin exploring, assessing, testing and evaluating existing products before moving on to design a product or dish of their own based on the design criteria and their intended user. It is in their designs where children will select what tools, materials and ingredients they intend to use.

Once children are happy with their designs, they will begin to make their product or dish. During the making process, children will begin to think critically and assess their product, the tools they have used and the materials they have selected. In addition, pupils will constantly evaluate whether their design is working or if their design and product needs to be adapted based on their evaluation of their product or dish.

When children have finished making their final product or dish they will make a final evaluation, assessing it against their design criteria, functionality, and aesthetic (KS2). Towards the end of the Long Enquiry, children will complete an Evaluation Form where children will be reflective learners and critical thinkers. On the evaluation forms children will write or discuss about how their product or dish has met the design criteria, the challenges they have faced and what they would change next time.

It is instilled in the pupils of Preston Primary that Design and Technology does not follow a simple cycle of design, make and evaluate, rather that we are constantly evaluating, adjusting our designs and products or dishes to improve them – this makes us successful chefs, inventors and designers.

Progression of Knowledge and Skills in Design and Technology

	Cooking & Nutrition	Textiles	Structures	Mechanisms	Electrical Systems and IT (KS2 ONLY)
					
Unit 1	<p>Measure and weigh food items using non-statutory measures e.g. spoons and cups. Autumn 1, Spring 2</p> <p>Begin to work safely and hygienically. Autumn 1, Spring 2</p> <p>Explore familiar food products e.g. fruit, bread. Autumn 1, Spring 2</p> <p>Begin to learn to stir, spread, knead, chop and shape a variety of food ingredients. Autumn 1, Spring 2</p> <p>Use a variety of tools safely.</p>	<p>Feel a variety of materials and discuss their different textures and colours. Spring 1</p> <p>Cut and stick fabrics together. Spring 1</p> <p>Make a product using a variety of materials and glue. Spring 1</p> <p>Be able to talk about what you have made and how you could make it better. Spring 1</p> <p>Use a variety of tools safely.</p>	<p>Explore and investigate a range of simple and large scale constructions e.g. cardboard boxes. Autumn 1</p> <p>Constructs with a purpose and can adapt work where necessary. Spring 1 & 2</p> <p>Use a variety of tools safely.</p>	<p>Explore and use a lift the flap mechanism. Spring 1</p> <p>Selects appropriate tools, resources and materials to shape assemble and join. Spring 1 & 2</p> <p>Explore and talk about the different mechanisms used in the Lego Discover programme. (pulley, cog, lever) Spring 1 & 2</p> <p>Use a variety of tools safely.</p>	
Unit 2	<p>Understand that all food comes from plants or animals. Cycle A Autumn 2 SE</p> <p>Know that food has to be grown elsewhere, grown or caught. Cycle A Autumn 2 SE</p>	<p>Discuss similarities and differences between different textile materials based on colour, texture, weight, and flexibility. Cycle B Spring 2 LE</p> <p>Use of knowledge of existing products to inspire your own ideas. Cycle B Spring 2 LE</p>	<p>Explore a variety of materials and describe their properties [soft, hard, strong, flimsy etc.] and their similarities and differences. Cycle A, Spring 2 LE</p> <p>Begin to measure and join materials. Cycle A, Spring 2 LE</p>	<p>Explore and use mechanisms [levers and sliders] Cycle A Spring 1 LE</p> <p>Deconstruct a simple slider and lever and describe how it works. Cycle A Spring 1 LE</p>	




	<p>Know that everyone should eat a balanced diet and can explain what a balanced diet is. Cycle A Autumn 2 SE</p> <p>Use the basic principles of healthy eating to design and make a savoury dish. Cycle B Spring 1 LE</p> <p>Demonstrate how to use techniques such as cutting, peeling, grating, and chopping. Cycle B Spring 1 LE</p> <p>Make and prepare a savoury meal affordably. Cycle B Spring 1 LE</p>	<p>Explore joining techniques such as gluing and threading [running stitch], follow procedures for safety. Cycle B Spring 2 LE</p> <p>Design and make a puppet selecting from a range of suitable and functional materials according to their characteristics. Cycle B Spring 2 LE</p> <p>Explain why you have chosen certain materials. Cycle B Spring 2 LE</p> <p>Evaluate your product and its functionality. Cycle B Spring 2 LE</p>	<p>Discuss ways to make material/product stronger. Cycle A, Spring 2 LE</p> <p>Use joining, rolling, or folding to make structure stronger. Cycle A, Spring 2 LE</p> <p>Begin using materials to make simple joints [using glue, tape, and paper clips among other materials]. Cycle A, Spring 2 LE</p> <p>Discuss similarities and differences between existing structures [houses, buildings]. Cycle B, Autumn 1 SE</p> <p>Investigate and explore a variety of different material and discuss which materials are stronger and more stable. Cycle B, Autumn 1 SE</p>	<p>Make a lever prototype by joining card strips with fasteners. Cycle A Spring 1 LE</p> <p>Design purposeful, functional, appealing products for themselves and other users based on design criteria. Cycle A Spring 1 LE</p> <p>Make a moving picture using a functional mechanism [lever or slider] Cycle A Spring 1 LE</p> <p>Evaluate their ideas and products against design the criteria. Cycle A Spring 1 LE</p>	
Unit 3	<p>Begin to know that food is grown (tomatoes, wheat and potatoes), reared (pigs, chicken and cattle), caught (fish), and processed (cereals, cheese and bread) in the UK, Europe and the wider world. Cycle A Spring 2 SE</p> <p>To understand that a healthy diet is made up from a variety and balance food groups Cycle A Spring 2 SE</p>	<i>See Art and Design Curriculum Document.</i>	<p>Discuss what the many purposes of shell structures are (protecting, containing, and/or presenting) Cycle B Spring 2 LE</p> <p>Explore existing shell structures [such as St. Peter's Basilica Cathedral, sweet tube etc.] Cycle B Spring 2 LE</p> <p>Deconstruct and assemble the net of basic 3D shapes. Cycle B Spring 2 LE</p>	<p>Explore and use mechanisms [levers and linkages] Cycle A Spring 2 LE</p> <p>Deconstruct and reconstruct a variety of levers and describe how they work. Cycle A Spring 2 LE</p> <p>Deconstruct and reconstruct a linkage mechanism and describe how it works. Cycle A Spring 2. LE</p> <p>Generate ideas, considering the purpose and audience of their</p>	<p>Discuss how common electrical equipment works and how it can be used safely. Cycle A Spring 1 LE</p> <p>Know about inventors, designers, engineers, and manufacturers who have designed electrical products. Cycle A Spring 1 LE</p> <p>Identify key features of electrical safety. Cycle A Spring 1 LE</p> <p>Describe how a simple battery powered circuit can be controlled by</p>

	<p>To understand the seasonality of some fruits and vegetables. Cycle A Spring 2 SE</p> <p>Understand how to cook a variety of predominantly healthy dishes safely and hygienically. Cycle B Autumn 2 LE</p> <p>Compare and learn about food from a different culture to your own. Cycle B Autumn 2 LE</p> <p>Taste and evaluate food from a different culture. Discuss the differences in textures, taste, and smell. Cycle B Autumn 2 LE</p> <p>Design a traditional savoury dish from a different culture Cycle B Autumn 2 LE</p> <p>Use a range of techniques to prepare food such as: slice, grate, chop, cut, peel, mix and spread, knead, and bake ingredients. Cycle B Autumn 2 LE</p> <p>Measure ingredients accurately using statutory measurements Cycle B Autumn 2 LE</p> <p>Know that recipes can be adapted to the taste, texture, and aroma. Cycle B Autumn 2 LE</p>		<p>Explore a variety of shell structures packages, discuss their properties. Cycle B Spring 2 LE</p> <p>Design and make shell structure packaging to contain and/or protect a product. Cycle B Spring 2 LE</p> <p>Design and make shell structure packaging, which is appealing to users. Cycle B Spring 2 LE</p> <p>Use a variety of tools and materials to make shell structure packing and joints. Cycle B Spring 2 LE</p> <p>Start to evaluate their product both during the making process and after. Cycle B Spring 2 LE</p> <p>Evaluate their ideas and products against design criteria. Cycle B Spring 2 LE</p>	<p>product while designing. Cycle A Spring 2. LE</p> <p>Design a purposeful, functional, and appealing product for themselves and other users based on design criteria. Cycle A Spring 2 LE</p> <p>Measure, mark out and cut paper, card or other suitable materials to create levers and linkages. Cycle A Spring 2 LE</p> <p>Make labelled drawings of your design. Cycle A Spring 2 LE</p> <p>Start to evaluate their product both during the making process and after. Cycle A Spring 2 LE</p> <p>Evaluate their ideas and products against design criteria. Cycle A Spring 2 LE</p> <p>Deconstruct and reconstruct a pulley mechanism and describe how it works. Cycle B Autumn 2. SE</p> <p>Construct a pulley mechanism that allows a load to travel horizontally along a rope. Cycle B Autumn 2 SE</p>	<p>different kinds of switches. Cycle A Spring 1 LE</p> <p>Evaluate how electrical circuits are used in existing functional products. Cycle A Spring 1 LE</p> <p>Create a simple circuit. Cycle A Spring 1 LE</p> <p>Know how simple electrical circuits and components can be used to create functional products. Cycle A Spring 1 LE</p> <p>Design and make an electrical circuit for a functional product. Cycle A Spring 1 LE</p> <p>Critically evaluate your electrical circuit against your original design criteria. Cycle A Spring 1 LE</p>
--	---	--	--	--	---

	Evaluate your dish based on its taste, texture, and appearance. Cycle B Autumn 2 LE				
Unit 4	<p>Understand that seasons may affect the availability of food. Cycle A Spring 1 LE</p> <p>Know different foods and drinks contain different substances – nutrients, water, and fibre – that are needed for health. Cycle A Spring 1 LE</p> <p>Design a savoury dish using ethically sourced local produce and ingredients Cycle A Spring 1 LE</p> <p>Design a savoury dish which is aesthetically pleasing. Cycle A Spring 1 LE</p> <p>Use mostly local ingredients to make an affordable savoury dish. Cycle A Spring 1 LE</p> <p>Understand and use a range of techniques to slice, grate, chop, cut, peel, mix, spread, knead, and bake ingredients and decide which techniques are appropriate as part of the design and make process. Cycle A Spring 1 LE</p> <p>Understand how recipes can be adapted taste, texture, and aroma. Cycle A Spring 1 LE</p>	<p>Explore and critically evaluate a range of existing textile products [including how they can be recycled and reused, what methods of construction has been used, what materials have been chosen, and how innovative products are]. Cycle B Autumn 2 LE</p> <p>Carry out research through surveys, questionnaires, interviews, and web-based resources to gather information about the needs, wants and preferences of individuals and groups. Cycle B Autumn 2 LE</p> <p>Generate innovative ideas based on research. Cycle B Autumn 2 LE</p> <p>Select appropriate materials to create a product based on the audience wants and needs, Cycle B Autumn 2 LE</p> <p>Explain their choice of materials based on their functional properties and aesthetic qualities. Cycle B Autumn 2 LE</p> <p>Accurately measure materials with more than one part. Cycle B Autumn 2 LE</p> <p>Make a product from a broad range of material joining techniques, including stitching, fastening and adhesives. Cycle B Autumn 2 LE</p>	<p>Explore how technology of structures has evolved over time. Cycle A Summer 2. SE</p> <p>Evaluate existing structures, analysing what materials are most suitable. Investigate advantages and disadvantages of certain tools and equipment or construction and structures. Cycle A Summer 2. SE</p> <p>Evaluate key designs of individuals in design and technology (structures) and how their designs have helped shape the world. Cycle A Summer 2. SE</p> <p>Evaluate how design and technology (structures) can provide a creative solution to real-world problems [e.g., earthquakes, tsunamis] Cycle A Summer 2. SE</p>	<p>Explore and use mechanisms [axels, gears, and wheels] Cycle A Spring 2 LE</p> <p>Describe in detail the way in which an axel and chassis help a vehicle move. Cycle A Spring 2. LE</p> <p>Use a range of different methods to attach an axle to a chassis. [card triangles, cable ties and clothes pegs.] Cycle A Spring 2. LE</p> <p>Deconstruct and reconstruct an axel, wheel and gear mechanism and describe how it works. Cycle A Spring 2. LE</p> <p>Design and make a working model where the direction of movement can be controlled. [e.g., a chassis with a pivoting axel]. Cycle A Spring 2. LE</p> <p>Evaluate your product against the design criteria, the products appearance, and functionality. Cycle A Spring 2. LE</p>	<p>Explain what computer-aided design is and its purpose. Cycle B Spring 2 LE</p> <p>Explore and investigate how to use computer-aided design. Cycle B Spring 2 LE</p> <p>Design, make and evaluate a creative solution to a real-world problem. Cycle B Spring 2 LE</p> <p>Design, make and evaluate a 2D or 3D model using computer-aided design. Cycle B Spring 2 LE</p> <p>Make a physical prototype based on your computer-aided design. Cycle B Spring 2 LE</p> <p>Evaluate your 2D/3D design and/or prototype against the design criteria. Cycle B Spring 2 LE</p>

	<p>Evaluate the dish against the design criteria. Cycle A Spring 1 LE</p> <p>Compare and learn about food from a different culture to your own, including comparing cost and seasonality. Cycle B Spring 1 SE</p> <p>Taste and evaluate food from a different culture. Discuss and explain the differences in textures, taste, seasoning, appearance and aroma. Cycle B Spring 1 SE</p> <p>Evaluate what a different culture recommends for a healthy, balanced diet in comparison to the UK. Cycle B Spring 1. SE</p>	<p>Accurately assemble and join materials to create an aesthetically pleasing and functional finished product. Cycle B Autumn 2 LE</p> <p>Identify strengths and areas of development in their textile products. Cycle B Autumn 2 LE</p> <p>Consider the views of others, including intended users, to evaluate their work Cycle B Autumn 2 LE</p> <p>Consistently critically evaluate the quality of design, manufacture, and fitness for purpose of their product during the design and make process and act upon this. Cycle B Autumn 2 LE</p>			
--	--	---	--	--	--

Key Concepts for Design and Technology Explained

Design	Design is developing, planning and communicating ideas about what you intend to make.
	
Make	Make is to work with tools, equipment, materials, ingredients, and components to make quality products and dishes.
	
Evaluate	Evaluate means to reflect on ideas and products against the design criteria.
	
Design Criteria	The specific and concise requirements that a product must meet in order to be successful. This is used to evaluate the final product.
