



Design Technology Curriculum Overview

Intent:

At Falmouth Primary Academy, our vision for Design Technology education is to inspire and empower our students to navigate the creative process with curiosity, confidence, and ingenuity, equipping them to set sail toward a future full of possibilities. Through hands-on, project-based learning, we provide opportunities for children to design, make, and evaluate products that solve real-world problems and encourage a global perspective. We believe in fostering resilience, critical thinking, and independence by encouraging learners to take the lead in generating ideas, experimenting with materials, and refining their creations.

Our goal is to create a learning environment where Design Technology is accessible, relevant, and exciting, equipping students with the vocabulary, technical knowledge and practical skills needed to innovate in an ever-changing world. We aim for students to confidently apply the design process, articulate their ideas using technical vocabulary, and understand the impact of design and technology on society and the environment. By working collaboratively, sharing feedback, and engaging in constructive dialogue, our students develop the communication skills they need to share their innovations with the world.

By the end of their journey with us, our students will think, speak, and act like designers and engineers, envisioning a future where they can lead and innovate

By the end of their journey with us, our students will think, speak, and act like designers and engineers, envisioning a future where they can lead and innovat within the STEAM community.











Implementation: Curriculum Overview

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 1		Mechanisms Can I design, make and evaluate a toy? (link to History and Science)		Textiles Can I design, make and evaluate a weather station using materials? (prep for summer 1)		Structures and Materials Can I design, make and evaluate a Castle structure?
Year 2	Structures and Materials Can I design, make and evaluate a model house from 16 th century London?		Cooking and Nutrition Can I design, make and evaluate a smoothie using fruits and/or vegetables? (link to growing)		Mechanisms Can I design, make and evaluate a cart for transporting quarry stones? (link to History)	
Year 3	Cooking and Nutrition Design, make and evaluate a traditional Spanish dish (link to Geography and MfL)		Textiles Design, make and evaluate a woven friendship bracelet (Mayan weaving) (link to history)		Structure and Materials, inc Textiles Design, make and evaluate a modern-day ship with sails.	
Year 4		Mechanisms Water wheels - design and make an Ancient Greek water wheel. (Link to science forces Y3 and 5, maths measuring, capacity and science)		Structures and Materials Design and make an earthquake detector which will make a sound when it detects movement. (Link to Peru previous Geog topic - seismic area Science recapping)		Cooking and Nutrition Can I design, make and evaluate a Cornish pasty? (link to growing Science and history mining)
Year 5	Electrical Design, make and evaluate a light up and/or moving Christmas decoration (link back to Y4 science)		Cooking and Nutrition Design, make and evaluate a Tudor pottage			Mechanisms Design, make and evaluate a rocket launcher
Year 6		Textiles Use cross stitch and applique to design, make and evaluate an Egyptian Usekh (link to History)		Computing and Programming Design using CAD 3D modelling software.		Electrical Design, make and evaluate a motorised vehicle (link to History)
Year 6 b		How can I create Japanese Sushi? Design and make Sushi (Link to Geog)		Computing and Programming Design using CAD 3D modelling software.		Electrical Design, make and evaluate a motorised vehicle (link to History and electrical link science)









Progression Map



	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
	Children design purposeful, fund themselves and other users base They generate, develop, model o	ed on design criteria.	Children use research and develop design of innovative, functional, of fit for purpose, aimed at particula	appealing products that are	Children use research and develop of innovative, functional, appealing aimed at particular individuals or g	g products that are fit for purpose,
	through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology. Children can:		They generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and		They generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-	
		and the state of the state of	computer- aided design.		aided design.	
	use their knowledge of existing products and their own experience to help generate their ideas;		Children can:		Children can:	
Design	design products that have a pu intended user;		identify the design features of their products that will appeal to intended customers;		use research to inform and develop detailed design criteria to inform the design of innovative, functional and appealing products that are fit for purpose and aimed at a target market;	
	explain how their products will and simple annotated drawings	look and work through talking s;	use their knowledge of a broad r to help generate their ideas;	5 5.	use their knowledge of a broad ra	J ,
	design models using simple con	nputing software;	design innovative and appealing clear purpose and are aimed at a	products that have a	design products that have a clear	nurnose and indicate the design
	plan and test ideas using temp	lates and mock-ups;	explain how particular parts of t		features of their products that wil	I appeal to the intended user;
	understand and follow simple d		use annotated sketches and cros	s-sectional drawings to	explain how particular parts of th	·
	work in a range of relevant con based, home, school and the wic	texts, for example imaginary, story-	develop and communicate their i	•	use annotated sketches, cross-se	ctional drawings and exploded
	based, nome, school and the wic	er environment.	when designing, explore different coming up with a final design;	it initial ideas before	diagrams (possibly including computer-aided design) to develop and communicate their ideas;	
			when planning, start to explain their choice of materials and components including function and aesthetics;		generate a range of design ideas and clearly communicate final designs;	
			test ideas out through using prototypes; use computer-aided design to develop and communicate their ideas		consider the availability and costings of resources when planning out designs; work in a broad range of relevant contexts, for example conservation, the home, school, leisure, culture, enterprise, industry and the wider	
			develop and follow simple design criteria; work in a broader range of relevant contexts, for example entertainment, the home, school, leisure, food industry and the		environment.	enterprise, industry and the wider
			wider environment.			
	Begin to draw on their own experience to help generate	Start to generate ideas by drawing on their own and other	With growing confidence, generate ideas for an item	Start to generate ideas, considering the purposes	Start to generate, develop, model and communicate their	Generate, develop, model and communicate their ideas
	ideas and research	people's experiences.	considering its purpose and the	for which they are	ideas through discussion,	through discussion, annotated
	conducted on criteria.	Begin to develop their design	user.	designing.	annotated sketches and diagrams.	sketches, cross sectional and exploded diagrams,
	Start to suggest ideas and explain what they are going	ideas through discussion, observation, drawing and	When planning, explain their choice of materials and	When planning, explain their choice of materials	With growing confidence select	prototypes, and pattern.
	to do.	modelling.	components including function	and components	appropriate materials, tools and	Confidently use research and
	Begin to understand the	Identify a purpose for what they	and aesthetics.	including function and aesthetics considering	techniques.	develop design criteria to inform the design of innovative,
	development of existing	Identify a purpose for what they intend to design and make.	Start to order the main stages	the views of others to	Start to understand how much	functional, appealing products
	products: explain what they are for, how they work.	Understand how to identify a	of making a product.	improve their work.	products cost to make, how sustainable and innovative they	that are fit for purpose.
	what materials have been	target group for what they	Put together a step by step	Confidently make	are and the impact products	Know how much products cost
	used.	intend to design and make based on a design criteria.	plan which shows the order and what equipment and tools	labelled drawings from different views showing	have beyond their intended purpose.	to make, how sustainable and innovative they are and the
	Understand how to identify	Dovolon their ideas through talls	they need.	specific features.		impact products have beyond their intended purpose.
	a target group for what they intend to design and	Develop their ideas through talk and drawings and label parts.		Develop a clear plan on	Begin to use research and develop design criteria to	
	make based on a design criteria.	Pupils begin to explain why they		the process and how to use materials.	inform the design of innovative, functional, appealing products	Use market research to inform plans.
		chose a certain material.		equipment and	that are fit for purpose.	
	Begin to develop their ideas	1		suggesting alternative		Suggest ideas about how their









	through talk and simple drawings.			methods if the first attempt fails.	Draw up a specification for their design-link with Mathematics and Science.	product could be sold and work within a given budget.
	Communicate with others about how they want to construct their product.				Produce a detailed step-by step plan.	Confidently draw up a specification for their design- link with Mathematics and Science.
					Suggest some alternative plans and say what the good points and drawbacks are about each.	Suggest alternative methods of making if the first attempts fail.
					With growing confidence, apply a range of finishing techniques, including those from art and design	Plan the order of their work, choosing appropriate materials,
					Explain how their product will appeal to the audience	Accurately apply a range of finishing techniques, including those from art and design.
						Identify the strengths and areas for development in their ideas and products.
	Children select from and use a ra perform practical tasks [for exam and finishing].	nge of tools and equipment to ple, cutting, shaping, joining	Children select from and use a wid equipment to perform practical tas shaping, joining and finishing] acc	sks [for example, cutting,	Children select from and use a wide to perform practical tasks [for examand finishing], accurately.	er range of tools and equipment nple, cutting, shaping, joining
	They select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics.		They 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.		They 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.	
	Children can:					
	Planning		Children can:		Children can:	
Make	_	an or recipe:	Children can: Planning		Children can: Planning	
Make	Planning with support, follow a simple pla begin to select from a range of l as scissors, graters, zesters, saf	nand tools and equipment, such	Planning with growing confidence, carefull tools and equipment, explaining	their choices;	Planning independently plan by suggesting	
Make	with support, follow a simple plo	nand tools and equipment, such e knives, juicer;	Planning with growing confidence, carefull	their choices;	Planning independently plan by suggesting with growing confidence, select fro equipment, explaining their choice	om a wide range of tools and es;
Make	with support, follow a simple plo begin to select from a range of l as scissors, graters, zesters, saf	nand tools and equipment, such e knives, juicer; , textiles and components s;	Planning with growing confidence, carefull tools and equipment, explaining select from a range of materials according to their functional prop qualities;	their choices; and components perties and aesthetic	Planning independently plan by suggesting	om a wide range of tools and es;
Make	with support, follow a simple plo begin to select from a range of l as scissors, graters, zesters, saf select from a range of materials according to their characteristic	nand tools and equipment, such e knives, juicer; , textiles and components s;	Planning with growing confidence, carefull tools and equipment, explaining a select from a range of materials a according to their functional prop qualities; place the main stages of making Practical skills and techniques	their choices; and components perties and aesthetic in a systematic order;	Planning independently plan by suggesting with growing confidence, select fro equipment, explaining their choice	om a wide range of tools and es; nd components according to sthetic qualities;
Make	with support, follow a simple plot begin to select from a range of as scissors, graters, zesters, saff select from a range of materials according to their characteristic Practical skills and techniques learn to use hand tools appropring procedures;	nand tools and equipment, such e knives, juicer; , textiles and components s;	Planning with growing confidence, carefull tools and equipment, explaining select from a range of materials according to their functional propagalities; place the main stages of making	their choices; and components perties and aesthetic in a systematic order; eaujoment safely.	Planning independently plan by suggesting with growing confidence, select fro equipment, explaining their choice select from a range of materials a their functional properties and ae- create step-by-step plans as a gui	om a wide range of tools and es; nd components according to sthetic qualities; ide to making;
Make	with support, follow a simple plate begin to select from a range of as scissors, graters, zesters, saff select from a range of materials according to their characteristic Practical skills and techniques learn to use hand tools appropring procedures;	nand tools and equipment, such e knives, juicer; , textiles and components s; initiately and learn to follow safety mponents, including textiles and	Planning with growing confidence, carefull tools and equipment, explaining a select from a range of materials a according to their functional propulaties; place the main stages of making Practical skills and techniques learn to use a range of tools and appropriately and accurately and procedures; use a wider range of materials ar	their choices; and components perties and aesthetic in a systematic order; equipment safely, I learn to follow hygiene	Planning independently plan by suggesting with growing confidence, select fre equipment, explaining their choice select from a range of materials a their functional properties and ae- create step-by-step plans as a gui Practical skills and techniques learn to use a range of tools and e appropriately and learn to follow l independently take exact measure	om a wide range of tools and ess; nd components according to sthetic qualities; ide to making; equipment safely and hygiene procedures;
Make	with support, follow a simple plot begin to select from a range of as scissors, graters, zesters, saff select from a range of materials according to their characteristic Practical skills and techniques learn to use hand tools appropring procedures; use a range of materials and co food ingredients;	nand tools and equipment, such e knives, juicer; , textiles and components s; idiately and learn to follow safety mponents, including textiles and	Planning with growing confidence, carefull tools and equipment, explaining select from a range of materials according to their functional progradities; place the main stages of making Practical skills and techniques learn to use a range of tools and appropriately and accurately and procedures;	their choices; and components perties and aesthetic in a systematic order; equipment safely, I learn to follow hygiene	Planning independently plan by suggesting with growing confidence, select fre equipment, explaining their choice select from a range of materials a their functional properties and ae- create step-by-step plans as a gui Practical skills and techniques learn to use a range of tools and e appropriately and learn to follow l independently take exact measure millimetre;	om a wide range of tools and ess; and components according to sthetic qualities; ide to making; equipment safely and hygiene procedures; ements and mark out, to within 1
Make	with support, follow a simple plot begin to select from a range of as scissors, graters, zesters, saff select from a range of materials according to their characteristic Practical skills and techniques learn to use hand tools appropripocedures; use a range of materials and cofood ingredients; with help, measure and mark output for the selection of the selection	nand tools and equipment, such e knives, juicer; , textiles and components s; ideately and learn to follow safety imponents, including textiles and out; with some accuracy;	Planning with growing confidence, carefull tools and equipment, explaining select from a range of materials according to their functional proqualities; place the main stages of making Practical skills and techniques learn to use a range of tools and appropriately and accurately and procedures; use a wider range of materials arconstruction materials and kits, to	their choices; and components perties and aesthetic in a systematic order; equipment safely, I learn to follow hygiene ad components, including extiles and mechanical	Planning independently plan by suggesting with growing confidence, select fre equipment, explaining their choice select from a range of materials a their functional properties and ae- create step-by-step plans as a gui Practical skills and techniques learn to use a range of tools and e appropriately and learn to follow l independently take exact measure	om a wide range of tools and ess; nd components according to sthetic qualities; ide to making; equipment safely and hygiene procedures; ements and mark out, to within 1
Make	with support, follow a simple plot begin to select from a range of as scissors, graters, zesters, saf select from a range of materials according to their characteristic Practical skills and techniques learn to use hand tools appropriprocedures; use a range of materials and co food ingredients; with help, measure and mark out, shape and score materials wassemble, join and combine matingredients; demonstrate how to cut, shape	nand tools and equipment, such e knives, juicer; , textiles and components s; ideately and learn to follow safety imponents, including textiles and set; with some accuracy; ideately, components or	Planning with growing confidence, carefull tools and equipment, explaining a select from a range of materials a according to their functional prop qualities; place the main stages of making Practical skills and techniques learn to use a range of tools and appropriately and accurately and appropriately and accurately and procedures; use a wider range of materials ar construction materials and kits, to and electrical components; with growing independence, mea nearest cm and millimetre; cut, shape and score materials wi	their choices; and components perties and aesthetic in a systematic order; equipment safely, I learn to follow hygiene ad components, including extiles and mechanical sure and mark out to the	Planning independently plan by suggesting with growing confidence, select fro equipment, explaining their choice select from a range of materials a their functional properties and aes create step-by-step plans as a gui Practical skills and techniques learn to use a range of tools and e appropriately and learn to follow l independently take exact measure millimetre; use a full range of materials and c construction materials and kits, te	om a wide range of tools and ess; and components according to sthetic qualities; ide to making; equipment safely and hygiene procedures; ements and mark out, to within 1 components, including xtiles, and mechanical
Make	with support, follow a simple plot begin to select from a range of as scissors, graters, zesters, saff select from a range of materials according to their characteristic Practical skills and techniques learn to use hand tools appropriprocedures; use a range of materials and cofood ingredients; with help, measure and mark out, shape and score materials wassemble, join and combine matingredients; demonstrate how to cut, shape product;	nand tools and equipment, such e knives, juicer; , textiles and components s; ideately and learn to follow safety imponents, including textiles and int; with some accuracy; iterials, components or and join fabric to make a simple	Planning with growing confidence, carefull tools and equipment, explaining a select from a range of materials a according to their functional prop qualities; place the main stages of making Practical skills and techniques learn to use a range of tools and appropriately and accurately and procedures; use a wider range of materials an construction materials and kits, to and electrical components; with growing independence, mea nearest cm and millimetre; cut, shape and score materials wi accuracy;	their choices; and components perties and aesthetic in a systematic order; equipment safely, I learn to follow hygiene ad components, including extiles and mechanical sure and mark out to the th some degree of	Planning independently plan by suggesting with growing confidence, select fre equipment, explaining their choice select from a range of materials a their functional properties and ae: create step-by-step plans as a gui Practical skills and techniques learn to use a range of tools and e appropriately and learn to follow l independently take exact measure millimetre; use a full range of materials and c construction materials and kits, te	om a wide range of tools and ess; and components according to sthetic qualities; ide to making; equipment safely and hygiene procedures; ements and mark out, to within 1 components, including xtiles, and mechanical
Make	with support, follow a simple plot begin to select from a range of as scissors, graters, zesters, saf select from a range of materials according to their characteristic Practical skills and techniques learn to use hand tools appropriprocedures; use a range of materials and co food ingredients; with help, measure and mark out, shape and score materials wassemble, join and combine matingredients; demonstrate how to cut, shape	nand tools and equipment, such e knives, juicer; , textiles and components s; ideately and learn to follow safety imponents, including textiles and int; with some accuracy; iterials, components or and join fabric to make a simple	Planning with growing confidence, carefull tools and equipment, explaining a select from a range of materials a according to their functional prop qualities; place the main stages of making Practical skills and techniques learn to use a range of tools and appropriately and accurately and appropriately and accurately and procedures; use a wider range of materials ar construction materials and kits, to and electrical components; with growing independence, mea nearest cm and millimetre; cut, shape and score materials wi	their choices; and components perties and aesthetic in a systematic order; equipment safely, I learn to follow hygiene and components, including extiles and mechanical sure and mark out to the th some degree of rial and components	Planning independently plan by suggesting with growing confidence, select fre equipment, explaining their choice select from a range of materials a their functional properties and ae: create step-by-step plans as a gui Practical skills and techniques learn to use a range of tools and e appropriately and learn to follow l independently take exact measure millimetre; use a full range of materials and c construction materials and kits, te components; cut a range of materials with prec	om a wide range of tools and ess; and components according to sthetic qualities; ide to making; equipment safely and hygiene procedures; ements and mark out, to within 1 components, including xtiles, and mechanical ision and accuracy; ecision and accuracy;









			with some accuracy to make a simple product;				
	cut, peel and grate ingredients, including measuring and weighing ingredients using measuring cups; begin to use simple finishing techniques to improve the appearance of their product, such as adding		join textiles with an appropriate sewing technique; begin to select and use different and appropriate finishing techniques to improve the appearance of a product such as hemming, tie-dye, fabric paints and digital graphics.		demonstrate how to measure, make a seam allowance, tape, pin, cut, shape and join fabric with precision to make a more complex product; join textiles using a greater variety of stitches, such as backstitch, whip stitch, blanket stitch:		
	simple decorations.		3, ,,			refine the finish using techniques to improve the appearance of their product, such as sanding or a more	
	Begin to make their design using appropriate techniques. Begin to 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. Identify and talk about products which use electricity to make them work With help, measure, mark out, cut and shape a range of materials. Explore using tools e.g. scissors and a hole punch safely. Begin to assemble, join and combine materials and components together using a variety of temporary methods e.g. glues or masking tape. Begin to use simple finishing techniques to improve the appearance of their product	Begin to select tools and materials; use correct vocabulary to name and describe them. Build structures, exploring how they can be made stronger, stiffer and more stable Measure, mark out, cut and shape a range of materials. Explore using tools e.g. scissors and a hole punch safely. Begin to assemble, join and combine materials and components together using a variety of temporary methods e.g. glues or masking tape. With help, measure, cut and score with some accuracy. Start to assemble, join and combine materials in order to make a product. Begin to use simple finishing techniques to improve the appearance of their product. Start to choose and use appropriate finishing techniques based on their own ideas. Join fabric using a running stitch, glue and tape.	Select a wider range of tools and techniques for making their product. Explain their choice of tools and equipment in relation to the skills and techniques they will be using. Measure, mark out, cut, score and assemble components with more accuracy. Select the most appropriate too and techniques for the given task. Begin to make choices of materials both for its appearance and qualities. Begin to use some simple stitches to join fabrics.	Select and use a wider range of tools and techniques for making their product safely. Know how to measure, mark out, cut and shape a range of materials, using appropriate tools equipment and techniques. Demonstrate how to measure, tape, pin, cut and join with accuracy. Begin to combine components and materials in different ways. Start to use simple electrical circuits and mechanical systems. Use some finishing techniques to strengthen and improve the appearance of their product using a range of equipment.	Select appropriate materials, tools and techniques e.g. 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. Combine components and materials in different ways with accuracy. Know how more complex electrical circuits and components can be used to create functional products. Use a variety of finishing techniques to strengthen and improve the appearance of their product using a range of equipment. Demonstrate motivation/perseverance to refine and improve their products.	Confidently select appropriate tools, materials, components and techniques and use them with accuracy. Aim to make and to achieve a quality product Demonstrate when to make modifications as they go along. Know how to combine complex electrical circuits and components to create functional products. Make decisions and select the most appropriate mechanical system for a particular purpose. Use finishing techniques to strengthen and improve the appearance of their product using a range of equipment. Demonstrate motivation/perseverance to refine and improve their products.	
	Children explore and evaluate a range of existing products. They evaluate their ideas and products against design criteria. Children can: explore and evaluate existing products mainly through discussions, comparisons and simple written evaluations; explain positives and things to improve for		Children investigate and analyse a range of existing products. They evaluate their ideas and products against their own design criteria and consider the views of others to improve their work. They understand how key events and individuals in design and technology have helped shape the world. Children can: explore and evaluate existing products, explaining the purpose of the product and whether it is designed well to meet the intended purpose;		consider the views of others to improve their work. They understand		
	existing products;	•	explore what materials/ingredi	explore what materials/ingredients products are made		design, manufacture and fitness design and make;	









	explore what materials products are made from;	from and suggest reasons for this;	evaluate their ideas and products against the original design criteria, making changes as needed.					
Evaluate	talk about their design ideas and what they are making; as they work, start to identify strengths and possible changes they might make to refine their existing design;	consider their design criteria as they make progress and are willing to alter their plans, sometimes considering the views of others if this helps them to improve their product;	making changes as necaea.					
	evaluate their products and ideas against their simple design criteria;	evaluate their product against their original design criteria;						
	start to understand that the iterative process sometimes involves repeating different stages of the process.	evaluate the key events, including technological developments, and designs of individuals in design and technology that have helped shape the world.						
	Start to evaluate their product by discussing how well it works in relation to the purpose. When looking at existing products, explain what they like and dislike about the products and why. Begin to evaluate their products as they are developed, identifying strengths and possible changes they might make next time. Evaluate their work against their design criteria. Look at a range of existing products explain what they like dislike about products and why. Evaluate their work against their design criteria.	against their original design criteria. Throughout the process making some simple changes where necessary. Begin to evaluate familiar products and consider the views of others to improve them. Begin to evaluate familiar products and consider the views of others to improve them.	Start to evaluate a product against the original design specification and by carrying out appropriate tests. Evaluate their work both during and at the end of the assignment and seek evaluation from others. Evaluate appearance and function against original criteria, suggesting improvements and in the original design and the end of the assignment and seek evaluation from others. Evaluate their work continuously both during and at the end of the assignment and frequently seek evaluation from others. Evaluate their products, identifying strengths and areas for development, and carry out appropriate tests. Record their evaluations using drawings with labels – clearly identifying improvements and refinements.					
		explaining why these would improve the final design.	refinements.					
	Children build structures, exploring how they can be made stronger, stiffer and more stable.	Children apply their understanding of how to strengthen, stiffen and reinforce more complex structures.	Children apply their understanding of how to strengthen, stiffen and reinforce more complex structures.					
	They explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products. Children can:	They understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages].	They understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages].					
	build simple structures, exploring how they can be made stronger, stiffer and more stable;	They understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors].	They understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors].					
Technical Knowledge	talk about and start to understand the simple working characteristics of materials and components;	They apply their understanding of computing to program, monitor and control their products.	They apply their understanding of computing to program, monitor and control their products. Children can:					
Miewicage	explore and create products using mechanisms, such as levers, sliders and wheels.	Children can: understand that materials have both functional properties and aesthetic qualities;	apply their understanding of how to strengthen, stiffen and reinforce more complex structures in order to create more useful characteristics of products;					
		apply their understanding of how to strengthen, stiffen and reinforce more complex structures in order to create more useful characteristics of products;	understand and demonstrate that mechanical and electrical systems have an input, process and output;					
		understand and demonstrate how mechanical and electrical systems have an input and output process;	explain how mechanical systems, such as cams, create movement and use mechanical systems in their products;					
		make and represent simple electrical circuits, such as a series and parallel, and components to create functional products;	apply their understanding of computing to program, monitor and control a product.					
		explain how mechanical systems such as levers and linkages create movement;						









			use mechanical systems in their	products.			
	Children use the basic principles prepare dishes.	of a healthy and varied diet to	Children understand and apply the and varied diet.	ne principles of a healthy	Children understand and appl varied diet.	Children understand and apply the principles of a healthy and varied diet.	
	They understand where food comes from.		They prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques.		They prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques.		
Cooking	Children can: explain where in the world different foods originate from;		They understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed.		They understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed. Children can:		
and			Children can:			uples of food that is grown (such as	
Nutrition	understand that all food comes from plants or animals; understand that food has to be farmed, grown elsewhere (e		start to know when, where and how food is grown (such as herbs, tomatoes and strawberries) in the UK, Europe and the wider world:		pears, wheat and potatoes), and caught (such as fish) in t world;	know, explain and give examples of food that is grown (such as pears, wheat and potatoes), reared (such as poultry and cattle) and caught (such as fish) in the UK, Europe and the wider world:	
	home) or caught;						
	name and sort foods into the five groups in the Eatwell Guide;		understand how to prepare and predominantly savoury dishes s	cook a variety of afely and hygienically;	understand about seasonalit availability and plan recipes	y, how this may affect the food according to seasonality;	
	understand that everyone should eat at least five portions of fruit and vegetables every day and start to explain why; use what they know about the Eatwell Guide to design and prepare dishes.		with support, use a heat source awareness of the need to contro and/or oven;	to cook ingredients showing I the temperature of the hob	understand that food is proceed eaten or used in cooking;	understand that food is processed into ingredients that can be eaten or used in cooking;	
			use a range of techniques such as mashing, whisking, crushing, grating, cutting, kneading and baking;		demonstrate how to prepare and cook a variety of predominantly savoury dishes safely and hygienically including, where appropriate, the use of a heat source;		
			explain that a healthy diet is made up of a variety and balance of different food and drink, as represented in the Eatwell Guide and be able to apply these principles when planning and cooking dishes; understand that to be active and healthy, nutritious food and drink are needed to provide energy for the body;		demonstrate how to use a range of cooking techniques, such as griddling, grilling, frying and boiling;		
					explain that foods contain different substances, such as protein, that are needed for health and be able to apply these principles when planning and preparing dishes;		
				prepare ingredients using appropriate cooking utensils;		adapt and refine recipes by adding or substituting one or more ingredients to change the appearance, taste, texture and aroma;	
			measure and weigh ingredients to the nearest gram and millilitre; start to independently follow a recipe; start to understand seasonality.		alter methods, cooking times and/or temperatures; measure accurately and calculate ratios of ingredients to scale up or down from a recipe; independently follow a recipe.		
	Begin to understand that all food comes from plants or animals.	Understand that all food comes from plants or animals.	Start to know that food is grown, reared and caught in the UK, Europe and the wider	Know that food is grown, reared and caught in the UK,	Begin to explain how ingredients are grown, reared and caught in the	Explain how ingredients are grown, reared and caught.	
	Start to understand how to name and sort foods into the	Develop understanding of where different foods come from and also food from native to different	world. Know that a healthy diet is	Europe and the wider world.	UK, Europe and the wider world.	Understand that seasons may affect the food available.	
	five groups. Know that everyone should	Countries. Understand how to name and	made up from a variety and balance of different food and drink.	Understand why a healthy diet is important.	Begin to understand that seasons may affect the food available.	Know different food and drink contain different substances that are needed for health.	
	eat at least five portions of fruit and vegetables every day.	sort foods into the five groups in Recognise the need for a variety of food in a diet.	Begin to know that to be active and healthy, food and drink are needed to provide	Know that to be active and healthy, food and drink are needed to	Evaluate a meal and consider if they contribute towards a balanced diet	Plan a healthy and affordable diet.	
	Know how to prepare simple dishes safely and	Demonstrate how to prepare	energy.	provide energy.	Begin to understand that	Explain how food is processed into ingredients that can be	









	hygienically, without using a heat source. Begin to use techniques such as cutting, peeling and grating. Measure and weigh food items using non-standard measures (e.g. spoons and cups).	simple dishes safely and hygienically, without using a heat source. Demonstrate how to use techniques such as cutting, peeling and grating	Understand how to prepare and cook a variety of dishes including having experience of using a heat source. Begin to understand how to use a range of techniques such as peeling, chopping, slicing, grating, mixing, spreading, kneading and baking.	Understand how to prepare and cook a variety of predominantly savoury dishes including having experience of using a heat source. Understand what to do to be safe and hygienic. Understand how to use a range of techniques such as peeling, chopping, slicing, grating, mixing, spreading, kneading and baking. Measure and weigh ingredients accurately.	different food and drink contain different substances that are needed for health. Explain what times of year particular foods are eaten in. Understand how food is processed into ingredients that can be eaten or used in cooking. Know how to prepare and cook a variety of predominantly savoury dishes including the use of a heat source. Demonstrate increasing confidence in how to use a range of techniques such as peeling, chopping, slicing, grating, mixing, spreading, kneading and baking. Begin to use appropriate tools and equipment, weighing and measuring with scales.	Know how to prepare and cook a variety of predominantly savoury dishes safely and hygienically including the use of a heat source. Confidently use a range of techniques such as peeling, chopping, slicing, grating, mixing, spreading, kneading and baking. Use appropriate tools and equipment, weighing and measuring with scales.
--	---	---	---	---	--	--

Impact:

At Falmouth Primary Academy, each Design Technology project is structured around a composite endpoint that reflects the key knowledge, skills, and processes students are expected to master. These endpoints are supported by carefully designed components, with regular assessment checkpoints to monitor and ensure student progress. To support all learners, we employ adaptive teaching methods, enabling students to develop a secure understanding of each stage of the design process and confidently demonstrate their creativity and problem-solving abilities through composite assessment tasks.

Formative assessment is embedded throughout our lessons, incorporating tools such as peer feedback, design booklets, and quizzes to track learning. We integrate cross-curricular opportunities, including art, mathematics, science, and literacy, to support understanding and immediately address misconceptions.

Consequently, children leave Falmouth Primary Academy with a solid foundation in designing, making, and evaluating, confidently articulating their ideas using technical vocabulary. They depart not only with the skills to think, create, and communicate like designers and engineers but also with the inspiration and aspirations to pursue future roles within the STEAM community and contribute meaningfully to the global landscape of design and technology.





