

Design Technology

Intent

Through a variety of creative and practical activities, we teach the knowledge, understanding and skills to engage in an interactive process of design and making.

Chronological Overview

Cycle A			
Reception	Yr1/2	Yr 3/4	Yr5/6
Christmas Salt Dough Decorations	Textiles - Face Masks	Structure from a Stone Age Settlement	Food Tech - Caribbean drinks and South American dishes
Food Tech - Easter Baking	Food Tech - Bakewell Puddings	Textiles - Metal Jewellery	Textiles - Felting a Tudor rose
Textiles - Sock puppets	Create moving pictures	Food Tech - Mayan Chocolate	Paper and willow lanterns

Cycle B			
Reception	Yr1/2	Yr 3/4	Yr5/6
Christmas Salt Dough Decorations	Making bows and arrows	Make a Trojan Horse	Bridges
Food Tech - Easter Baking	Food Tech - Seasonal Healthy Soup	Food Tech - Cook Italian dishes	Design and make a WWII meal on rations
Textiles - Sock puppets	Making vehicles with axles	Design and make a Viking longboat	Pulleys and levers

Autumn	EYFS		KS1		LKS2		UKS2	
	Rec A	Rec B	Yr 1 /2 A	Yr 1 /2 B	Yr3/4 A	Yr3 /4 B	Yr 5 /6 A	Yr 5/6 B
Design	To discuss how to combine the ingredients to	To discuss how to combine the ingredients to	To understand the features of a mask— attaching,	To understand the features of a bow and	To understand the key features of a Stone Age	I understand and can explain what a cam	Understand and apply the principles of a	I know the design features of a suspension

	<p>make salt dough.</p> <p>To discuss what shape our decoration will be and how we will make that shape.</p> <p>To discuss what we else we can add to our decoration.</p> <p>Discuss what we might use to hang the decoration from the tree.</p>	<p>make salt dough.</p> <p>To discuss what shape our decoration will be and how we will make that shape.</p> <p>To discuss what we else we can add to our decoration.</p> <p>Discuss what we might use to hang the decoration from the tree.</p>	<p>shaping, covering.</p> <p>To investigate how the properties of different materials make them useful for different purposes.</p> <p>To develop sewing techniques and types of stitch.</p> <p>To design a pattern to use when cutting fabric.</p>	<p>arrow and how these work.</p> <p>To investigate how the properties of different materials make them useful for different purposes.</p> <p>To design a bow and arrow using my learning of materials to select the most appropriate resource or material for a specific purpose and apply this to my own design.</p>	<p>Settlement and can apply this to my design. I can carefully plan the most sensible site for each feature. I will consider advantages and disadvantages in the planning process.</p>	<p>mechanism is. I know what cams can be made out of metal, plastic or wood.</p> <p>I know that different types of cams such as round, hexagon, or egg shaped can create different movements.</p> <p>I can use a cam mechanism in the design of a Trojan horse</p>	<p>healthy varied diet.</p> <p>Understand seasonality and know where and how a variety of ingredients are grown, reared, caught and processed.</p>	<p>bridge and can explain how to strengthen, stiffen and reinforce more complex structures. I can design a suspension bridge using the knowledge gained from my research.</p>
Make	Talk about safety and how only adults will put the	Talk about safety and how only adults will put the	To make a functional face mask for an adult. To explore how my design can be	To build a bow and arrow. To explore how my design can be	To make a structure from a stone age settlement. I can select from and use	To make a trojan horse using a cam mechanism. I can select from and use	Prepare and cook a variety of savoury dishes using a range of	I know the key structural components needed to design and make a

	<p>decorations in the oven.</p> <p>Use their chosen shape cutter to cut out their decoration.</p> <p>When the decorations are dry, tie a ribbon so that they can hang.</p>	<p>decorations in the oven.</p> <p>Use their chosen shape cutter to cut out their decoration.</p> <p>When the decorations are dry, tie a ribbon so that they can hang.</p>	<p>made stronger, stiffer and more stable.</p>	<p>made stronger, stiffer and more stable.</p>	<p>a range of tools for a specific purpose.</p>	<p>a wider range of tools and equipment to shape, sand and finish.</p>	<p>cooking techniques.</p>	<p>successful suspension bridge.</p> <p>I can select from and use a wide range of construction materials and components based on their functional properties to create a suspension bridge</p>
Evaluate	<p>Talk about something the like about their decoration. How could they improve it next time?</p>	<p>Talk about something the like about their decoration. How could they improve it next time?</p>	<p>To test and evaluate my design, setting myself targets for improvement.</p>	<p>To test and evaluate my bow and arrow, setting myself targets for improvement.</p>	<p>To test and evaluate the effectiveness of my design, setting myself targets for improvement.</p>	<p>I can test and evaluate the design and functionality of my Trojan horse, setting myself targets for improvement</p>	<p>Evaluate and compare the food and drink prepared and what was used.</p>	<p>I know about the importance of compression and tension within a bridge. I can evaluate the effectiveness of the bridge</p>
Vocabulary/ Technical Knowledge	<p>Improve</p>	<p>Improve</p>	<p>Build/construct Fabric Joining Mask Sewing Shaping Appealing</p>	<p>Arrow Bow Build and construct Joining Shaping</p>	<p>Buildings Site Design Create Plan Strengthen,</p>	<p>Cam Movement Component Mechanism Rotate Linear Design</p>	<p>Healthy and Varied Diet Spices Tropical Punch Seasonality</p>	<p>Suspension Bridge Compression Tension Deck Pier Anchor</p>

			Evaluate		stiffen, reinforce . Join Evaluate			Components Structure
Impact – end points	To be able to say something they like about their decoration.	To be able to say something they like about their decoration.	To be able to discuss and evaluate their mask and how it could be improved.	To be able to discuss and evaluate their bow and arrow and how it could be improved	Within a small group, construct a Stone Age settlement diorama.	To be able to discuss and evaluate their trojan horse and how it could be improved.	To be able to discuss and evaluate their drink and dish and how it could be improved.	To create a suspension bridge which can hold a weight.
Cultural Capital	Christmas Craft afternoon	Christmas craft afternoon	Invite medical professional in to judge masks	Sherwood Forest		Greek food experience.		Straight Curves craft group
Designers								

Spring	EYFS		KS1		LKS2		UKS2	
	Rec A	Rec B	Yr 1 /2 A	Yr 1 /2 B	Yr3/4 A	Yr3 /4 B	Yr 5 /6 A	Yr 5/6 B
Design	To discuss what an Easter nest is, what ingredients we will need and the baking progress.	To discuss what an Easter nest is, what ingredients we will need and the baking progress.	To design a package with the purpose of safely storing their Bakewell Pudding.	To learn about local foods that grow in Spring. To understand how to keep myself safe when cooking, demonstrate the claw and	I can explore and evaluate natural materials such as bone, animal teeth, shell, wood and stone. I can discuss, share ideas and evaluate	To understand the importance of food and culture in Italy and their famous dishes. To understand seasonality of	I can design and use research and develop design criteria to inform the design of innovative, functional, appealing products	I know the history of food rationing, why it was necessary and the impact it had on society. I can investigate

	<p>To think about and discuss what they will draw/add to their Easter basket to make it presentable.</p> <p>To discuss what a net is and where to cut with the scissors.</p>	<p>To think about and discuss what they will draw/add to their Easter basket to make it presentable.</p> <p>To discuss what a net is and where to cut with the scissors.</p>		<p>bridge method for safely chopping vegetables.</p> <p>To design a spring vegetable soup using knowledge of local spring produce.</p> <p>Identify the equipment that will be needed.</p>	<p>both metal and natural materials in response to design criteria.</p> <p>I can generate and develop ideas about my design, through discussion, drawings, or the use of IT.</p> <p>I can research the practical uses of jewellery to help me plan the function and design</p>	<p>ingredients and where they come from.</p> <p>To understand and apply the principles of a healthy diet. -</p>		<p>which foods were rationed and analyse the way they were used to create meals.</p> <p>I can compare a wartime menu with a modern day menu.</p> <p>I can design a wartime menu using allowances and food available.</p>
Make	<p>Cut carefully along the lines of the net and use PVA glue and spreaders to make the baskets.</p> <p>Use a range of resources to</p>		<p>Make packaging, exploring how to make it stronger and more stable.</p> <p>Join paper using glue, sellotape, masking tape staples, paper clips and</p>	<p>To prepare vegetables</p> <p>To cut, chop, tear, grate, peel, toss and spiralize safely. • To use the equipment knife, grater, peeler,</p>	<p>I can select from and use a range of tools to cut, shape and finish my jewellery</p>	<p>To use a range of cooking techniques to prepare and cook an Italian dish. Cooking and Nutrition design criteria, purpose, user, annotated</p>	<p>I can select from and use a range of tools for a specific purpose.</p> <p>I can select from and use a wider range of materials and textiles</p>	<p>I can prepare and cook a variety of dishes using a limited amount of ingredients and spice, herbs fat, sugar, carbohydrate,</p>

	decorate the baskets.		scissors carefully. • Strengthen, stiffen structures using rolling and concertinaing paper. To use triangularisation as a strengthening technic.	spiralizer and hands To measure ingredients. To make the final product		sketch, sensory, evaluations, peeling, chopping, slicing, grating, mixing, spreading, kneading, baking, fresh, pre-cooked, processed, oven, Use research to inform the design of their Italian dish aimed at particular groups or individuals.	according to their functional properties and aesthetic qualities. I know how to pin and tack fabric pieces together and join fabrics using a range of ways to stitch. I understand the process of making quality products with increasing accuracy and independence	protein, vitamins, nutrients, nutrition, healthy, varied, gluten, dairy, allergy, intolerance, savoury, source, seasonality utensils, combine, fold, knead, stir, pour, mix, rubbing in, whisk, beat, roll out, shape, sprinkle, crumble
Evaluate	Discuss how they feel about their baskets. Say something they're proud of and something they could improve.		To test and evaluate the effectiveness of the package, setting myself targets for improvement	To evaluate the product. To amend quantities of the previous product to adapt the product depending on	I can evaluate the process used to make my jewellery and discuss what changes could be made.	. To evaluate the taste and method used to create an Italian dish.	I can evaluate my product against my own design criteria and consider the views of others to improve my work.	I can evaluate the meal prepared and comment on any changes to improve it.

	Is it strong enough to hold the chocolate nests.			the evaluation feedback.				
Vocabulary/ Technical Knowledge	Net Clean Mix	Net Clean Mix	Picture Mechanism Pivot Slider Assemble Fix	Chop Cook Hygiene Local produce	Design Create Jewellery. Metal. Function Detail Material	Dough Fresh Grate Knead Prove Slice	Felt Fibres Gauge Wool Stitch	Food Supplies Allowances Prepare Limitations Processed . Grown Reared Caught
Impact – end points	To be able to speak positively about their creation and how they can improve it next time.	To be able to speak positively about their creation and how they can improve it next time.	To be able to discuss and evaluate their moving picture and how it could be improved.	To be able to design, make and evaluate a healthy soup from locally sources ingredients and adapt the product based on feedback.	Create a piece of jewellery using a range of materials. To be able to discuss why certain materials were chosen.		Create a Tudor rose from felt using a range of stiches and textile techniques.	Design and make a meal on rations.
Designers								

Summer	EYFS		KS1		LKS2		UKS2	
	Rec A	Rec B	Yr 1 /2 A	Yr 1 /2 B	Yr3/4 A	Yr3 /4 B	Yr 5 /6 A	Yr 5/6 B
Design	To choose an animal for their puppet and draw a simple design picture of what it is going to look like.		To explore what a picture is and think about what makes up a picture. Foreground background, character/picture. To design a moving picture with a background and main character.	To understand the features of a moving vehicle. To investigate how axles work. To design a vehicle using my learning of materials to select the most appropriate resource or material for a specific purpose and apply this to my own design	I understand that chocolate comes from cacao beans and pods that grow in large plantations. I know that only the rich and noble members of Maya drank/ate chocolatey treats with ingredients such as cinnamon and chilli's.	I know what longboats are and what they were used for. I know the features of longboats and what they made out of. I can name the important parts of a longboat and understand which are a necessity in my own design.	Understand the characteristics of the materials being used. Design and label the structure of a willow lantern.	I can understand the force of gravity. I can understand how a mechanism works. I can understand the different types of pulley and lever systems. I can understand gears.
Make	To create their puppet using various resources and attaching them to the socks using a simple running stitch with support.		Make a wheel mechanism. Make a lever mechanism. Make a moving picture.	To build a moving axle vehicle. To explore how my design can be made stronger, stiffer and more stable.	I know the ingredients I need to add together to make chocolate in order in which to add them in.	I can select from and use a wide range of tools and equipment to perform practical tasks accurately (e.g. cutting, shaping,	Understand the characteristics of the materials being used. Design and label the structure of a	Create a functional pulley and lever system.

					I can select and use appropriate tools or resources to weigh, pour, whisk, and stir ingredients. I know that chocolate can be made into certain shape by using a mould.	joining and finishing) I know how to secure materials together when building a Viking longboat.	willow lantern.	
Evaluate	Say who could use the product Identify if there anyone else that could use the product Explain their reasons describe who their product is for and why.	use own experiences and existing products to develop ideas explain what product they will be designing and making explain who their product will be used by describe what their product will be used for and how it	describe the purpose of their product and how it will work identify design features that will appeal to intended users explain how parts of their product works develop their own design criteria and use for planning ideas generate realistic ideas that meet needs of user and take into account	. explain what product they will be designing and making explain who their product will be used by describe what their product will be used for and how it will work explain why their product is suitable for	explain how parts of their product works develop their own design criteria and use for planning ideas generate realistic ideas that meet needs of user and take into account availability of resources	describe the purpose of their product and how it will work identify design features that will appeal to intended users explain how parts of their product works develop their own design criteria and use for	describe the purpose of their product identify design features that will appeal to intended users explain how parts of their product will work	develop their own design criteria and use for planning ideas generate innovative ideas that meet needs of user and take into account availability of resources

		will work explain why their product is suitable for the intended user	availability of resources Brain Builders: Understand and gather information about what a particular group or people want from a product	the intended user		planning ideas generate realistic ideas that meet needs of user and take into account availability of resources		
Vocabulary/ Technical Knowledge	<p>Sew Attach Picture, drawing, user, design Experiment, change, tools, materials, use Materials, use, idea, improve.</p> <p>technology, record, video, photograph, computer food, meal, snack, healthy, diet Join, decorate, finish,</p>	<p>Sew Attach Picture, drawing, user, design Experiment, change, tools, materials, use Materials, use, idea, improve.</p> <p>technology, record, video, photograph, computer food, meal, snack, healthy, diet Join, decorate, finish,</p>	<p>Picture Mechanism Pivot Slider Assemble Fix Purpose, develop, model, template, information, materials, Mock up, function, product, media, appeal, prototype, client/audience roll, pleat, stiffen, strengthen, reinforce, structure, pulleys, hinge, levers, Corrugate, hinge, lever, pivot, linkages.</p>	<p>Axle Vehicle Build/construct Movement Wheel Investigate, levers and linkages, project, test, original design criteria, evaluate, purpose, strengths, improvement evaluating, design brief, design criteria, innovative, prototype, user, purpose, function, prototype, design criteria, innovative,</p>	<p>Chocolate Cacao Pods Plantation Solid Processed Mould Measure Cooking and Nutrition design criteria, purpose, user, annotated sketch, sensory, evaluations, peeling, chopping, slicing, grating, mixing, spreading, kneading, baking, fresh,</p>	<p>Hull Longboat Sails Figurehead Functional properties Strengthen, stiffen, reinforce Aesthetic qualities evaluating, design brief, design criteria, innovative, prototype, user, purpose, function, prototype, design criteria, innovative,</p>	<p>Lantern Translucent Willow Pliable Layer Series circuits characteristics design decisions, functionality, authentic, user, purpose, design specification, design brief, innovative, research, evaluate, design criteria, annotate, evaluate, mock-up,</p>	<p>Pully Lever Fulcrum Pivot Mechanism Axle Mechanical Gears. Mechanisms, Electrical Systems, Computers pulley, drive belt, gear, rotation, spindle, driver, follower, ratio, transmit, axle, motor circuit, switch, circuit diagram ,</p>

	<p>template, shiny, scale, tread, sew, needle, cut, eye of the needle, fabric, wadding</p>	<p>template, shiny, scale, tread, sew, needle, cut, eye of the needle, fabric, wadding</p>		<p>appealing, design brief, planning, annotated sketch, sensory evaluations, design, model, evaluate, annotated sketch, functional, innovative, investigate, label, drawing, design criteria, appealing</p>	<p>pre-cooked, processed, oven, chop, cut, peel, cook, healthy, farm, factory, nutrition, balance, name of products, names of equipment, utensils, techniques and Ingredients, yeast, dough, bran, flour, wholemeal, unleavened, baking soda, Nutrition carbohydrates, protein, sugar, vitamin, mineral, fat, thin, exercise and fitness, organic, hygienic</p>	<p>appealing, design brief, planning, annotated sketch, sensory evaluations, design, model, evaluate, annotated sketch, functional, innovative, investigate, label, drawing, design criteria, appealing Structures structure, stiffen, strengthen, reinforce, triangulation, stability, shape, join, temporary, permanent design brief, design specification,</p>	<p>prototype, function, innovative, design user, purpose design brief, design specification, prototype, annotated sketch</p>	<p>annotated drawings, exploded diagrams, mechanical system, electrical system, input, process, output design decisions, functionality, innovation, authentic, user, purpose, design specification, design brief</p>
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						prototype, annotated sketch, purpose, user, innovation, research functional shape, design specification, innovative, research, evaluate, design brief		
Impact – end points	To be able to use a simple running stich with support to attach something together.	To be able to use a simple running stich with support to attach something together.	To design, make, amend and evaluate a moving picture.	To design, make, amend and evaluate a functional moving vehicle.	To make Mayan Chocolate using selected ingredients and skills	To use materials to build a Viking longboat.	To make a working Paper and willow lantern.	Create a pulley and lever system for lifting and shifting materials from underground (Miner's Strike)
Designers								