



St Hubert's RC Primary School



Long-term plan: Design Technology Cycle A

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Owls (Reception & Year 1)	Food Technology <i>Fruit Salad</i>		Structures Furniture- free standing structure		Mechanisms	
Purpose	<i>Learning chopping, peeling, preparing and cooking skills.</i>		Designing a chair for Supertato- link with English text		Making a moving dinosaur using levers and sliders.	
Assessment of prior knowledge (before)	EYFS Understanding the World		EYFS Understanding the World		EYFS Understanding the World	
Knowledge (new learning)	Learning chopping, peeling, preparing and cooking skills.		Learning to create a structure that is freestanding. Learning new skills to fix, attach and build a structure.		Learning how to create a lever and slider to them use to create a moving object.	
Skills	Use the basic principles of a healthy and varied diet to prepare dishes Understand where food comes from.		Design purposeful, functional, appealing products for themselves and other users based on design criteria Select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing] Explore and evaluate a range of existing products Build structures, exploring how they can be made stronger, stiffer and more stable		Generate, develop, model and communicate their ideas through talking, drawing, templates, mock- ups and, where appropriate, information and communication technology Select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics Evaluate their ideas and products against design criteria	

			Explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products.
Vocabulary	Healthy Utensil Peel Core Wash Cut/slice Grate/grating Seeds/pips	Design Sturdy Strength Free standing Structure Chair	Cutting Fixing Joining Lever Move
Hawks (Year 1 & Year 2)	Food Technology Salads	Textiles Running stitch.	Mechanisms Making a fairytale slider.
Purpose	<i>Learning chopping, peeling, preparing and cooking skills.</i> Link to Science healthy eating. Link to processed foods- impact on health	Make a bag for The Jolly Postman- English text link	Making a Moving fairytale picture to entertain younger children- English text link
Assessment of prior knowledge (before)	Food technology in previous year- chopping, cutting, peeling, slicing, health and safety and cleaning when handling food.	No previous knowledge-children need to be taught the running stitch and how to attach fabrics together.	Mechanisms in Owls- levers and sliders.
Knowledge (new learning)	More independence with cutting, peeling, slicing	Running stitch Attaching fabrics together	Using sliders and other skills to creating a moving picture

Skills	Use the basic principles of a healthy and varied diet to prepare dishes		Design purposeful, functional, appealing products for themselves and other users based on design criteria		Generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology	
	Understand where food comes from.		Select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing]		Select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics	
			Explore and evaluate a range of existing products			
			Build structures, exploring how they can be made stronger, stiffer and more stable		Evaluate their ideas and products against design criteria Explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products.	
Vocabulary	Design Eatwell plate Grate Measure Cut Slice Peel Wash Healthy Safety		Design Pattern Fabric Fastening/Attaching Product Contrasting and complimentary colours Needle Thread Knot Running stitch Binca Safety		Lever Slider Picture Axel Move Up Down Left Right	
Red Kites (Yr3/4)	Structures		Textiles		Food Technology	
			Cross-stitch and		Seasonal	

	Create shell structure		applique.		tart	
Purpose	Garden flower boxes for outdoor area in school then at home.		Designing and making a laptop cover		Using seasonal fruits, design and make a fruit tart using puff pastry- link to healthy/balanced diet. Link to processed foods and impact on health. Rolling, cutting, baking. (Link to previous Y2 unit)	
Assessment of prior knowledge (before)	Creating a free standing structure- KS1		Running stitch in KS1		Food technology in previous year groups- chopping, cutting, peeling, slicing, health and safety and cleaning when handling food.	
Knowledge (new learning)	Creating a shell structure.		Cross-stitch and applique.		Rolling, cutting, baking.	
Skills	Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups Generate, develop, model and communicate their ideas through discussion, annotated sketches,		Select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately Select from and use a wider range of materials and components, including construction materials, textiles and		Understand and apply the principles of a healthy and varied diet Prepare and cook a variety of predominantly savoury dishes using a range of cooking Techniques	

	cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design Apply their understanding of how to strengthen, stiffen and reinforce more complex structure		ingredients, according to their functional properties and aesthetic qualities		Understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed	
Vocabulary	Shell structure Net 2D (two dimensional) Cube Cuboid Prism Tab Laminating Corrugating Stiffen Scoring		Blanket stitch Running stitch Attach Fabric Over sew stitch		Products, names of equipment, utensils, techniques and ingredients texture, taste, sweet, sour, hot, spicy, appearance, smell, preference, greasy, moist, cook, fresh, savoury, hygienic, harvested healthy/varied diet	
Buzzards (Yr4/5)	Food Technology Create a world themed menu (groups of children could be given a country to create a menu).		Textiles-Fastenings Book sleeve – sewing fastening on using a choice of stitch and stitching decorations onto sleeve.		Electrical Designing a night light including an electrical system and switch Or Fairground rides	
Purpose	Find out about fruit,		Book sleeve for a child of their age		Making a light up design using electricity (Y3)	

	vegetables and foods are grown in countries studied in Geography - Learning chopping, peeling, preparing and cooking skills.		range (themselves)		Science circuits) that can be used in the dark.	
Assessment of prior knowledge (before)	Food technology in previous year groups- chopping, cutting, peeling, slicing, health and safety and cleaning when handling food.	Lower KS2- Cross-stitch and applique. Running stitch in KS1.			First electrical DT design, children have learnt about electrical circuits in Year 3 Science so will know the electrical components and circuit making.	
Knowledge (new learning)	Cooking skills, preparation skills, learning about food all around the world	Sewing fastenings onto fabrics- buttons, Velcro, zippers etc.			Designing a model to integrate an electrical circuit. Using previous skills of structures and mechanisms to support their design.	
Skills	Understand and apply the principles of a healthy and varied diet Prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques Understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed	Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design			Understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors]	
Vocabulary	Food groups Carbohydrates		Aesthetic Assemble		Battery Bulb	

	Starches Fibres Grains Protein Fat Dairy Sweet Sour Savoury Salty Spicy Ingredients Imports Exports		Prototype Template Net Stitch Running stitch Joining Overlap		Connection. Design brief. Design Fault Function Switch Wire	
Eagles (Y6)	Structures		Mechanisms		Food Technology	
	WW2 Anderson Bunkers		Playground Equipment		Pizza	
Purpose	Creating and designing a bunker that will keep an egg safe under an attack (dropping a ball on top)		Designing and developing a range of apparatus to meet a list of specified design criteria.		Using a range of peeling, cutting, mashing, kneading etc. skills to design and make a pizza for a balanced diet	
Assessment of <u>prior</u> knowledge (before)	Structures in KS1 and Lower KS2- free standing structure shell structure		Mechanisms in KS1- sliders and levers		Food technology in previous year groups- chopping, cutting, peeling, slicing, health and safety and cleaning when handling food.	

Knowledge (new learning)	Creating a shell structure that can withstand force.	Moving parts- sliders, levers, triangular beams, stable joints	Kneading, mashing, weighing
Skills	Apply their understanding of how to strengthen, stiffen and reinforce more complex structures Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups	Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups Apply their understanding of how to strengthen, stiffen and reinforce more complex Structures Investigate and analyse a range of existing products Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work	Understand and apply the principles of a healthy and varied diet Prepare and cook a variety of predominantly savoury dishes using a range of cooking Techniques Understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed
Vocabulary	frame stable design function triangulation research sketches strengthen stiffen Blitz structure Anderson Shelters strut structure/framework diagonal vertical horizontal	Frame beams compression strut triangulation joints strengthen rigidity	Food groups Carbohydrates Starches Fibres Grains Protein Fat Dairy Sweet Sour Savoury Salty Spicy Ingredients Imports Exports

