

Year group: 6	Subject Area: Design Technology	Unit 1 – Electrical Systems	Subject Leader: H Cassidy	
Prior linked knowledge	National curriculum objectives		Future linked knowledge	
Links scientific knowledge to design by using pulleys or gears. Uses more complex IT program to help enhance the quality of the product produced (Y5)	<ul style="list-style-type: none"> • Apply their understanding of how to strengthen, stiffen and reinforce more complex structures. • Understand and use electrical systems in their products - for example series circuits incorporating switches, bulbs, buzzers and motors. • Apply their understanding of computing to program, monitor and control their products. 		Understand how more advanced electrical and electronic systems can be powered and used in their products (for example, circuits with heat, light, sound and movement as inputs and outputs) (KS3)	
Notes	Cross-curricular links		Possible hooks/enrichment activities	
Children will be taught circuits in Science lessons.	Science: Light and electricity		Children to play the board game Operation.	
Lesson Sequence				
To understand electrical systems and circuits.	To use different kinds of circuit in their product. Use electrical systems correctly and accurately to enhance a given product. Use knowledge to improve a made product by strengthening, stiffening or reinforcing.		To hide joints so as to improve the look of their product.	To know which IT product would further enhance a specific product.
Lesson 1: Research different electrical systems including light circuits and alarms and explore the different kinds of circuits incorporating switches, bulbs, buzzers and motors.	Lesson 2: Explore using different kinds of circuits and give reasons and examples for their uses. Create a design for a steady hand game and draw out the circuit they will need for their product.	Lesson 3 and Lesson 4: Create a wired steady hand game using an electrical system that works correctly. Evaluate the product and discuss the ways in which they could improve it. Take a photograph of the model and add to art and DT books.	Lesson 5: Use their evaluation to improve their design for the final product, e.g. creating a box or stand to hide wires. Add an image of the final product to art and DT books alongside the image of the product before the amendments.	Lesson 6: Use a video and add a QR code to the box of their final product.
Key Vocabulary				
Electrical system Motors Circuits Switches Bulb Buzzer	Electrical motors Circuits Switches Bulb Buzzer	Electrical system Wire Evaluate Final product	Evaluation Improvements Joints Sketchbook	QR code Generator
Key skill throughout unit				
<ul style="list-style-type: none"> • To understand electrical systems and circuits and be able to design and make a product showing a type of circuit. • To be able to suggest and make improvements to a product. • To apply skills of computing to further enhance a product. 				

Year group: 6	Subject Area: Design Technology	Unit 2 – Market Research and Textiles	Subject Leader: H Cassidy
Prior linked knowledge	National curriculum objectives	Future linked knowledge	
Come up with a range of ideas after collecting information from different sources. Use a range of tools, equipment, materials and techniques. (Y5)	<ul style="list-style-type: none"> • Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups. • Generate, develop, model and communicate their ideas. • Select from and use a wider range of tools and equipment for practical tasks. • Select from and use a wide range of materials and components. 	Select from and use specialist tools, techniques, processes, equipment and machinery precisely, including computer-aided manufacture. Select from and use a wider, more complex range of materials, components and ingredients, taking into account their properties (KS3).	
Notes	Cross-curricular links	Possible hooks/enrichment activities	
	History: World War 2	<i>To be populated by teachers, as they begin to use the curriculum – subject leader to then update half-termly.</i>	
Lesson Sequence			
To use market research to inform plans and ideas.	To justify planning in a convincing way. To show that culture and society is considered in plans and designs. To know which tool to use for a specific practical task and what each is used for.	To follow and refine original plans. To know how to use any tool correctly and safely. To explain why a specific tool is best for a specific action.	
Lesson 1: Discuss the task of designing and making the model (e.g. model of an air-raid shelter). Create their own market research including surveys and questionnaires for the making of their models, e.g. materials, structure, shape, etc.	Lesson 2: Create a detailed plan for the model. Ensure plans have explanations of the tools and materials intended to use. Children to be able to explain why they have chosen specific materials.	Lesson 3 and Lesson 4: Use the plans to create their own model. Ensure the children think about what they are using specific tools. Encourage children to check if the models are secure and stable. Make suggestions and changes of construction if necessary.	
Key Vocabulary			
Market research, Surveys, Questionnaires Design, Make	Plan, Design, Tools, Materials Explain, Justify	Model , Plan, Tools Equipment, Materials, Construction	
Key skill throughout unit			
<ul style="list-style-type: none"> • To generate, develop, model and communicate their ideas. • To select appropriate tools and materials for the task and ensure they are used correctly and safely. 			

Year group: 6	Subject Area: Design Technology	Unit 3 – Food Technology	Subject Leader: H Cassidy
Prior linked knowledge	National curriculum objectives	Future linked knowledge	
Be both hygienic and safe in the kitchen. Know how to prepare a meal by collecting the ingredients in the first place. Know which season various foods are available for harvesting (Y5).	<ul style="list-style-type: none"> Understand and apply the principles of a healthy and varied diet. Prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques. Understand seasonality and know where and how a variety of ingredients are grown, reared, caught and processed. Select from and use a wider range of tools and equipment to perform practical tasks, for example, cutting, shaping, joining and finishing, accurately. 	Understand and apply the principles of nutrition and health. Cook a repertoire of predominantly savoury dishes so that they are able to feed themselves and others a healthy and varied diet. Become competent in a range of cooking techniques. Understand the source, seasonality and characteristics of a broad range of ingredients (KS3).	
Notes	Cross-curricular links	Possible hooks/enrichment activities	
	<i>To be populated by teachers, as they begin to use the curriculum – subject leader to then update half-termly.</i>		
Lesson Sequence			
To understand the difference between a savoury and sweet dish	To explain how food ingredients should be stored and give reasons	To work within a budget to create a meal	To prepare and cook a savoury dish.
Lesson 1: Discuss the terms savoury and sweet. Understand what they both mean and look at two different dishes (one savoury and one sweet) and compare them.	Lesson 2 and lesson 3: Discuss being hygienic and safe in the kitchen and explore how food should be stored. Create poster explaining the reasons for storing food correctly.	Lesson 4: Create a meal using a given budget. Use information to plan items and calculate the amount to ensure they stick within their budget. Ensure the meals are healthy and varied.	Lesson 5 and Lesson 6: Recap hygiene and safety when handling, preparing and making food. Measure ingredients accurately and follow the recipe carefully. Add an image of the food to art and DT books.
Key Vocabulary			
Savoury Sweet Compare	Hygienic, Safety Kitchen, Food, Storage	Budget, Plan, Meal Calculate, Healthy, Varied Balanced, Diet	Recipe, Hygiene, Safety Handle, Prepare, Make Measure, Ingredients
Key skill throughout unit			
<ul style="list-style-type: none"> To explain how food should be safely stored. To be able to prepare and cook a recipe on a budget using the appropriate tools and techniques and understand savoury and sweet dishes. To be hygienic and safe in the kitchen. 			