



D+T Knowledge and Skills Progression						
Knowledge and Understanding						
Year 1		Structure	Textiles	Mechanisms	Electrical Systems	Cooking and Nutrition
<u>Skills</u>	Design	<ul style="list-style-type: none"> • Learning the importance of a clear design criteria. • Including individual preferences and requirements in a design. 	<ul style="list-style-type: none"> • Using a template to create a design for a puppet. 	<ul style="list-style-type: none"> • Explaining how to adapt mechanisms, using bridges or guides to control the movement. • Designing a moving story book for a given audience. 		
	Make	<ul style="list-style-type: none"> • Making stable structures from card. • Following instructions to cut and assemble the supporting structure of a windmill. • Making functioning turbines and axles which are assembled into a main supporting structure. • Finding the middle of an object. 	<ul style="list-style-type: none"> • Cutting fabric neatly with scissors. • Using joining methods to decorate a puppet. • Sequencing steps for construction. 	<ul style="list-style-type: none"> • Following a design to create moving models that use levers and sliders. 		

12R D+T Knowledge and Skills Progression

		<ul style="list-style-type: none"> • Puncturing holes. • Adding weight to structures. • Creating supporting structures. • Cutting evenly and carefully. 				
	Evaluate	<ul style="list-style-type: none"> • Evaluating a windmill according to the design criteria, testing whether the structure is strong and stable and altering it if it isn't. • Suggest points for improvements. 	<ul style="list-style-type: none"> • Reflecting on a finished product, explaining likes and dislikes. 	<ul style="list-style-type: none"> • Testing a finished product, seeing whether it moves as planned and if not, explaining why and how it can be fixed. • Reviewing the success of a product by testing it with its intended audience. 		
Knowledge		<p>Technical</p> <ul style="list-style-type: none"> • To understand that cylinders are a strong type of structure (e.g. the main shape used for windmills and lighthouses). • To understand that axles are used in 	<ul style="list-style-type: none"> • To know that 'joining technique' means connecting two pieces of material together. • To know that there are various temporary methods of joining fabric by using staples, glue or pins. 	<p>Technical</p> <ul style="list-style-type: none"> • To know that a mechanism is the parts of an object that move together. • To know that a slider mechanism moves an object from side to side. • To know that a slider mechanism has a slider, slots, guides and an object. 		

12R D+T Knowledge and Skills Progression

		<p>structures and mechanisms to make parts turn in a circle.</p> <ul style="list-style-type: none"> • To begin to understand that different structures are used for different purposes. • To know that a structure is something that has been made and put together. • To know that the sails or blades of a windmill are moved by the wind. • To know that a structure is something built for a reason. • To know that stable structures do not topple. • To know that adding weight to the base of a 	<ul style="list-style-type: none"> • To understand that different techniques for joining materials can be used for different purposes. • To understand that a template (or fabric pattern) is used to cut out the same shape multiple times. • To know that drawing a design idea is useful to see how an idea will look. 	<ul style="list-style-type: none"> • To know that bridges and guides are bits of card that purposefully restrict the movement of the slider. <p><u>Additional</u></p> <ul style="list-style-type: none"> • To know that in Design and Technology we call a plan a 'design' 		
--	--	--	--	---	--	--

12R D+T Knowledge and Skills Progression



		structure can make it more stable.				
Year 2		Structure	Textiles	Mechanisms	Electrical Systems	Cooking and Nutrition
Skills	Design	<ul style="list-style-type: none"> • Designing a junk model boat. • Using knowledge from exploration to inform design. 		<ul style="list-style-type: none"> • Designing a vehicle that includes wheels, axles and axle holders, that when combined, will allow the wheels to move. • Creating clearly labelled drawings that illustrate movement. 		<ul style="list-style-type: none"> • Designing a soup recipe as a class. • Designing soup packaging.
	Make	<ul style="list-style-type: none"> • Making a boat that floats and is waterproof, considering material choices. 		<ul style="list-style-type: none"> • Adapting mechanisms, when: <ul style="list-style-type: none"> • they do not work as they should. • to fit their vehicle design. • to improve how they work after testing their vehicle 		<ul style="list-style-type: none"> • Chopping plasticine safely. • Chopping vegetables with support.
	Evaluate	<ul style="list-style-type: none"> • Making predictions about, and evaluating different materials to see if they are waterproof. • Making predictions about, and 		<ul style="list-style-type: none"> • Testing wheel and axle mechanisms, identifying what stops the wheels from turning, and recognising that a wheel needs an axle in order to move. 		<ul style="list-style-type: none"> • Tasting the soup and giving opinions. • Describing some of the following when tasting food: look, feel, smell and taste. • Choosing their favourite packaging design and explaining why.

12R D+T Knowledge and Skills Progression



		<p>evaluating existing boats to see which floats best.</p> <ul style="list-style-type: none"> • Testing their design and reflecting on what could have been done differently. • Investigating the how the shapes and structure of a boat affect the way it moves. 				
<u>Knowledge</u>	<p><u>Technical</u></p> <ul style="list-style-type: none"> • To know that 'waterproof' materials are those which do not absorb water. <p><u>Additional</u></p> <ul style="list-style-type: none"> • To know that some objects float and others sink. • To know the different parts of a boat. 		<p><u>Technical</u></p> <ul style="list-style-type: none"> • To know that wheels need to be round to rotate and move. • To understand that for a wheel to move it must be attached to a rotating axle. • To know that an axle moves within an axle holder which is fixed to the vehicle or toy. • To know that the frame of a vehicle (chassis) needs to be balanced. <p><u>Additional</u></p>		<ul style="list-style-type: none"> • To know that soup is ingredients (usually vegetables and liquid) blended together. • To know that vegetables are grown. • To recognise and name some common vegetables. • To know that different vegetables taste different. • To know that eating vegetables is good for us. • To discuss why different packages might be used for different foods. 	



12R D+T Knowledge and Skills Progression

			<ul style="list-style-type: none">• To know some real-life items that use wheels such as wheelbarrows, hamster wheels and vehicles.		
--	--	--	---	--	--