

Design Technology

Year 1	Autumn 1	Autumn 2 Mechanisms Wheels & axles <ul style="list-style-type: none"> • To understand how wheels move. • To identify what stops wheels from turning. • To design a moving vehicle. • To build a moving vehicle. 	Spring 1	Spring 2 Structures Windmills <ul style="list-style-type: none"> • To include individual preferences and requirements in my design. • To make a stable structure. • To assemble the components of my structure. • To evaluate my project and adapt my design. 	Summer 1 Cooking – Fruit and vegetables <ul style="list-style-type: none"> • To identify if a food is a fruit or a vegetable. • To identify where plants grow and which parts we eat. • To taste and compare fruit and vegetables <ul style="list-style-type: none"> • To make a fruit and vegetable smoothie. 	Summer 2
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Year 2		Mechanisms- Fairground wheel <ul style="list-style-type: none"> • To explore wheel mechanisms and design a Ferris wheel. • To select appropriate materials. • To build and test a moving wheel. • To make and evaluate a structure with a rotating wheel. 	Textiles- Pouches <ul style="list-style-type: none"> • To sew a running stitch. • To join fabrics using a running stitch. • To decorate a pouch using fabric glue or stitching. • To evaluate the pouch 			Cooking- A balanced diet <ul style="list-style-type: none"> • To know what makes a balanced diet. • To taste test food combinations. • To design a healthy wrap • To make a healthy wrap.
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<p>Year 3</p>		<p>Mechanical systems Pneumatic toys</p> <ul style="list-style-type: none"> • To understand how pneumatic systems work. • To design a toy that uses a pneumatic system. • To create a pneumatic system. • To test and finalise ideas against design criteria. 		<p>Textiles Cushions</p> <ul style="list-style-type: none"> • To learn how to sew cross-stitch and appliqué. • To design a product and its template. • To decorate fabric using appliqué and cross-stitch. • To assemble and complete a cushion. 		<p>Structures Castles</p> <ul style="list-style-type: none"> • To recognise how multiple shapes (2D and 3D) are combined to form a strong and stable structure • To design a castle • To construct 3D nets • To construct and evaluate my final product
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<p>Year 4</p>		<p>Electrical systems Torches</p> <ul style="list-style-type: none"> • To learn about electrical items and how they work. • To analyse and evaluate electrical products. • To design a product to fit a set of specific user needs. • To make and evaluate a torch. 	<p>Digital World Mindful Moments Timer</p> <ul style="list-style-type: none"> • To evaluate existing products. • To develop design criteria. • To program and control a product. • To develop ideas through computer-aided design. • To consider feedback and evaluate. 			<p>Cooking Adapting a recipe</p> <ul style="list-style-type: none"> • To follow a baking recipe. • To make and test a prototype. • To design a biscuit to a given budget. • To make a biscuit that meets a given design brief.
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<p>Year 5</p>		<p>Electrical Systems Doodlers</p> <ul style="list-style-type: none"> • To understand how motors are used in electrical products. • To investigate an existing product to determine the factors that affect the product's form and function. • To apply the findings from research to develop a unique product. • To develop a DIY kit for another individual to assemble their product. 	<p>Structures Bridges</p> <ul style="list-style-type: none"> • To explore how to reinforce a beam (structure) to improve its strength. • To build a spaghetti truss bridge. • To build a wooden truss bridge. • To complete, reinforce and evaluate my truss bridge. 			<p>Cooking What could be healthier?</p> <ul style="list-style-type: none"> • To understand where food comes from. • To understand the term 'healthy'. • To adapt a traditional recipe. • To complete a food product.
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<p>Year 6</p>	<p>Mechanical Systems Automata Toys</p> <ul style="list-style-type: none"> • To prepare wood for assembly by measuring, marking and cutting each piece. • To assemble the automata frame components and supports with the help of an exploded diagram. • To explore the relationship between cam profiles and follower movement to inform a design decision. 	<ul style="list-style-type: none"> • 	<ul style="list-style-type: none"> • 		<p>Textiles- Waistcoats</p> <ul style="list-style-type: none"> • To design a waistcoat. • To mark and cut fabric according to a design. • To assemble a waistcoat. • To decorate your waistcoat. 	
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	<ul style="list-style-type: none">• To apply the housing and finishing touches to the automata frame.					
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