

Design and Technology Overview: Whole School

	Nursery	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Autumn		<p>My Heroes</p> <ul style="list-style-type: none"> Explore, use and refine a variety of artistic effects to express their ideas and feelings 	<p>Cooking & nutrition</p> <ul style="list-style-type: none"> Designing and making with food Understanding Health and nutrition Combining tastes and textures to make a product Using basic cutting tools <p><i>Fruit kebabs</i></p>	<p>Textiles: Marking out and joining fabric</p> <ul style="list-style-type: none"> Making a textile product by marking out, cutting and joining fabric <p><i>Finger puppets (animals)</i></p>	<p>Free Standing Structures</p> <ul style="list-style-type: none"> Understanding ways in which structures can be made stable Understand how to stiffen materials <p><i>Photo frame (as a present)</i></p>	<p>Mechanisms: Linkages</p> <ul style="list-style-type: none"> Understand how a range of linkage type mechanisms work Assemble a range of mechanisms including pop ups, spinners, sliders, levers and tabs Apply to the design of a pop up book <p><i>Pop Up Book with moving parts (Guide To The Rainforest)</i></p>	<p>Structures: Musical instruments</p> <ul style="list-style-type: none"> Investigate instruments from different times and cultures Understand how shape and materials used can alter sound Investigate a range of finishing techniques <p><i>Rainmaker</i></p>	<p>Structures</p> <ul style="list-style-type: none"> Understand why structures sometimes fail Investigate and use techniques to reinforce and strengthen structures Design and make a structure for a specific tasks <p><i>Design and build an aqueduct</i></p>
Spring		<p>Spring in our Step</p> <ul style="list-style-type: none"> Explore, use and refine a variety of artistic effects. 	<p>Static Structures</p> <ul style="list-style-type: none"> Creating models from sheet and reclaimed materials Understand about basic structures and how they can be made stronger/more stable Use range of fixing techniques <p><i>Castles</i></p>	<p>Mechanisms: Wheels, axels, pulleys and levers</p> <ul style="list-style-type: none"> Joining materials with moving joints Understand how wheels and axels work Understand winding mechanisms <p><i>Moving vehicle (fire engine)</i></p>	<p>Mechanisms and control: Pneumatics</p> <ul style="list-style-type: none"> Consider different types of pneumatic structures Know about the movement of simple mechanisms , such as levers and linkages <p><i>Moving Monster</i></p>	<p>Textiles: Reinforcing fabric</p> <ul style="list-style-type: none"> Investigate ways of reinforcing fabric, e.g. over stitching, running stitch Create and use a pattern Develop decorative techniques and fastenings e.g. applique <p><i>Purse for the Rio carnival</i></p>	<p>Mechanisms: Moving toys using cams, wheels and axels</p> <ul style="list-style-type: none"> Understand how mechanisms can be used to produce movement Cut, shape and join components, selecting tools for a specific purpose <p><i>Roman siege machines</i></p>	<p>Mechanisms: electrical and computer control</p> <ul style="list-style-type: none"> Understand how products can be driven by electricity Use motors to control speed and direction of movement Develop structures with cladding and finishing techniques
Summer	<p>Once Upon a Time</p> <ul style="list-style-type: none"> Join different materials and explore different textures. 	<p>Science Detectives</p> <ul style="list-style-type: none"> Look carefully at images or model of a skeleton. Choose from a variety of resources, what resources to use to create their own skeleton. 	<p>Mechanisms: Pushes, pulls and levers</p> <ul style="list-style-type: none"> Understand simple mechanisms that create movement e.g. simple levers and sliders <p><i>A book with moving parts (transport)</i></p>	<p>Textiles: Using a paper pattern, joining fabric</p> <ul style="list-style-type: none"> Use a graphics programme to design a space suit Use a simple paper pattern to draw around and cut out fabric Use simple joining techniques <p><i>Space suit for an Astronaut</i></p>	<p>Cooking & nutrition</p> <ul style="list-style-type: none"> Food preparation techniques Combining appearance, flavour and texture Understand the balanced plate model for healthy eating <p><i>A Greek Salad</i></p>	<p>Electrical Control</p> <ul style="list-style-type: none"> Draw on understanding of simple electrical circuits and switches Join components, cut and shape material with precision <p><i>An alarm system for a precious artefact</i></p>	<p>Cooking and Nutrition</p> <ul style="list-style-type: none"> Understand the function and properties of materials Identify, select and use food tools and techniques safely Understand food hygiene <p><i>Making bread</i></p>	<p>Textiles</p> <ul style="list-style-type: none"> Design for a range of needs – appearance, safety, size, warmth Use patterns, templates and detailed working drawings Develop finishing techniques <p><i>T Shirts</i></p>

