



Design and Technology: Curriculum Overview for KS1&2



	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Y1	<p>Moving Pictures</p> <p>This 'Moving Traditional Tale Pictures' unit gives children opportunities to develop their understanding of mechanisms. Children listen to and role play different Traditional Tales and then learn how sections of the stories can be made into a moving picture. Following instructions on how to make different types of mechanisms, such as levers, wheels and sliders, gives children experience and information to draw on when developing their own ideas. They sketch a design based on their ideas and then create their moving picture centred on the story of 'The Three Billy Goats Gruff.' Children evaluate their finished product.</p>			<p>Fabric Bunting</p> <p>This Fabric Bunting unit will teach the class about working with fabric. It starts with children evaluating a range of existing bunting with a theme around counting. Children are then set a design criteria. They will learn how to use a graphics program to create a design and template for their bunting. Working with felt, children will cut out a bunting shape and use a simple running stitch. Children will be given the chance to explore different fabrics that they could use to enhance their designs. Using techniques such as sewing, stapling and gluing, children will decorate their felt flag. Finally, children will evaluate their product.</p>		<p>Dips and Dippers</p> <p>This Dips and Dippers unit will teach children about good food hygiene rules and using kitchen equipment to prepare food safely. Children will apply these skills when making and evaluating a healthy dip and dippers. The unit develops children's understanding of the eatwell plate and explains the importance of eating a healthy and varied diet.</p>
Y2		<p>Pirates Packed Lunch</p> <p>The Pirate Paddy's Packed Lunch Problems unit gives children the opportunity to develop their understanding of structures. The exploration of different types of lunch boxes gives children the experience and information to draw on when developing their own ideas. The children create their ideas following the design criteria, given at the beginning of the project, and go on to create models from reclaimed materials. Children gain a basic understanding about how structures can be made stronger, stiffer and more stable. At the end of the unit, children test their product and suggest further improvements.</p>	<p>Fabric Faces</p> <p>In this unit your class will learn all about different fabrics. They will explore and become familiar with the names of different fabrics and learn how to choose and manipulate fabrics to create different effects; they will also learn how to join fabrics in a variety of ways. Running stitch will be introduced during this unit. Finally, children get the chance to apply all of these skills to help them create their own fabric face which they will evaluate.</p>		<p>Sensational Salads</p> <p>This Sensational Salads unit will teach your class about peeling, zesting, cutting safely and applying these skills when preparing healthy dishes. Children will learn key information about healthy eating and where their food comes from. They will gain some practical ideas about ingredients that can be combined to make interesting and healthy salads.</p>	

Y3		<p>Bread Bake Off</p> <p>This Great Bread Bake Off unit will teach your class about working with food. Children will gain an insight into the history of bread production, then investigate and evaluate existing bread products. They will create design criteria which will be referred to when designing, making and evaluating their own bread product.</p> <p>Children use a range of skills and techniques using simple kitchen tools and measuring equipment, they will learn how to knead dough correctly and the technique of proving bread.</p>		<p>Mechanical Posters</p> <p>This 'Mechanical Posters' unit gives children opportunities to develop their understanding of mechanical systems. Following instructions on how to make different types of lever and linkage mechanisms gives children experience and information to draw on when developing their own ideas.</p> <p>They sketch a design based on their ideas, make a prototype, and then create their 'Lever and Linkage Poster' using the context of recycling.</p> <p>Finally, children will evaluate their finished product.</p>		<p>Let's go fly a Kite</p> <p>This Let's Go Fly a Kite unit gives children opportunities to develop their understanding of frame structures and how they can be strengthened and stiffened. Children will discover information about a key event involving a kite that helped shape the world. Children will gain knowledge and understanding about the parts and shapes of kites. This will help them when designing and making their own kites. Finally, children will test and evaluate their kites against design criteria they have created.</p>
Y4		<p>Juggling Balls</p> <p>This Juggling Balls unit will teach the class how to make juggling balls. They will start by exploring and evaluating different juggling balls. Children are then given a design brief, asking them to design and make a circus themed juggling ball. A hemming and overcast stitch will be introduced during this unit. Children will learn about decoration techniques; getting the chance to use tie-dye and fabric paints. Finally, when they have completed the making of their juggling ball, children will evaluate their product against design criteria.</p>		<p>Edible Garden</p> <p>This unit provides an opportunity for children to learn where and how a variety of ingredients are grown. Firstly, children will learn how to plant seeds and care for their plants so they yield produce that can be used in their cooking. They will learn how to cook with the ingredients they are growing; following recipes and using different kitchen equipment. The lessons take into account the appropriate safety and hygiene rules.</p>		<p>Battery Operated lights</p> <p>This 'Battery Operated Lights' unit gives children opportunities to enhance their knowledge and understanding of electrical systems. In this unit children will develop understanding about series and parallel circuits and different types switches. They will then be given the chance to apply their knowledge about electric circuits in a purposeful way by designing and making a battery operated light which will be controlled by a homemade switch. Children will decide upon the design criteria for the light by considering who will use it, where it will be used and what for. Finally, children will complete a detailed evaluation of their final product.</p>

Y5		<p>Programming Adventures</p> <p>Children will apply their understanding of computing to program a floor robot. They will explore a range of adventure maps and use these to create original designs. As a group, they will research how floor robots move along different types of materials and use this knowledge to create obstacle squares. Children will use appropriate joining methods to make a scale adventure map. They will test and evaluate the effectiveness of another group's obstacle squares. (While this unit focuses on creating a treasure map, this can be adapted to fit with literacy, numeracy, history or geography units as appropriate).</p>		<p>Super Seasonal Cooking</p> <p>This 'Super Seasonal Cooking' unit of work will teach your class about the importance of buying seasonal food. The first part of the unit provides an opportunity for children to learn where, when and how a variety of ingredients are grown, reared, caught and processed. Children will then have the chance to sample some spring seasonal food before designing their own balanced seasonal meal. They will learn how to cook with the seasonal ingredients following their own recipes and using a wide range of preparation and cooking techniques. Finally, children will evaluate their product against their design criteria. Children will learn appropriate hygiene rules for handling meat and fish and safe preparation skills.</p>		<p>Automata Animals</p> <p>This 'Automata Animals' unit gives children opportunities to further develop their understanding of mechanical systems. Children learn about controlling movement with a cam mechanism as part of an automata animal. They develop their designing skills through using information sources to research ideas about animals which are then incorporated into the design criteria and designs. They make a simple cam mechanism to formulate an understanding of how different shaped cams can be used to produce different movements.</p> <p>Children extend their making skills by developing techniques in cutting, shaping and joining to combine components and by selecting tools and equipment to measure and cut wood and card accurately. Through these activities they gain an understanding of the working characteristics of the materials and components and how they can be combined to create more useful properties. Peer assessment is used to improve designs and evaluate final products.</p>
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Y6		<p>Marbulous Structures</p> <p>This Marbulous Structures unit gives children opportunities to develop their understanding of more complex free standing structures and how they can be strengthened and reinforced. Children will gain knowledge and understanding about how to join and shape materials. Children will then apply these skills, using an iterative design process, to create their marble runs. Finally, children will test and evaluate their marble runs against design criteria</p>		<p>Felt Phone Cases</p> <p>This Felt Phone Cases unit will teach your class about how to write their own design criteria. They will design products with the user in mind thinking about aesthetics and functionality. Annotated designs will be used to communicate ideas as well as step by step plans. Children will learn how to make a paper template and how to sew a running stitch, backstitch, whip stitch and blanket stitch. Finally, when they have made their felt phone case, children will learn how to write a detailed evaluation.</p>		<p>Global Food</p> <p>This Global Food unit will give your children the chance to discover the exciting and diverse choice of food available around the world. The first part of the unit provides an opportunity for children to learn where in the world a variety of ingredients flourish. They will then build on their understanding of the eatwell plate, placing different ingredients into the correct food groups. This will develop a deeper understanding that although food can be extremely varied, it still comes under the same basic food groups. Children will then have the chance to learn some basic and</p>
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