



Design and Technology Long Term Overview

	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Autumn – Mechanisms	<p>The premise of this whole school project is to ensure every child makes an item to sell/promote at a pop-up shop within our local town. Every item should be useable or possible to play on and covers the cost of the materials that have been used (enterprise/economy link) The children then display their items for sale at the pop up shop, making money for our school resources.</p> <p>All lessons follow the DT format of research - design - make - evaluate.</p>						
	Mechanisms are explored through toys such as vehicles, pushchairs, small world characters with moveable limbs	Using wheels, axels and a chassis, children design a toy car to sell.	Using both slides and levers, children design and create two Christmas themed pop up toys. One should use a pivot, the other a pull tab.	Children design and make an electrical loop game in groups.	Using corrugated card and split pins, children work on design brief of 'something that climbs or jumps'.	<p>Individual: Children design and create a flag for the North Pole, using a pulley system.</p> <p>Class challenge. Each child makes a gear to a specification. Can the class get all the gears to link</p>	Children start by investigating different types of cam mechanisms, considering in their design process ways to improve the strength and structure of their design. Children can use a cardboard box structure for their cam mechanism.

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						and move at the same time?	
Spring 1 – Graphics & Construction	<p>This whole school project is developed with the idea of becoming a designer and architect! Children have a designers and creators day, where they start by generating, developing and communicating their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design. They then make their designs, using the appropriate tools and materials. Each year group designs a different structure based on their History/ Geography learning.</p> <p>All lessons will focus on research and design.</p>						
	Graphics and Construction skills are developed with the small and large scale construction materials within the continuous provision, and design sheets are available for children to express their creations symbolically.	Design and make a food package for bananas to be transported in.	Design and make a bird feeder for a native bird of the UK.	Design and make a musical instrument that can be played.	Design, make and evaluate a model of a building that could withstand an enemy attack.	Design, make, test and evaluate a backpack that could be used for mountain climbing.	Design, make, test and evaluate an appropriate boat that could be used to transport goods across the ocean.

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Spring 2 -Textiles	The premise of this whole school project is to ensure every child makes an item to sell at our summer fare. Every item is based on a textile design and flower theme and focuses on a recycling/environmentally friendly aspect to creating products. The children then display their items for sale at the fare, making money for our school resources. All lessons follow the DT format of research - design - make - evaluate.						
	Textiles are explored through scrap fabrics being used in the creative area and den-making fabric being accessible from the continuous provision investigation area.	Children to make a flower themed collage from recycled materials where the colour corresponds to what it represents e.g. green for the leaves	Children to create a tree design. Children can sew an over stitch using a guide and then move to fabric.	Children to create a daisy. Children to create a felt flower and use attached features on their final pieces such as buttons etc	Children to create a sunflower. Children can practise a stitched hem.	Children to create a bunch of flowers. Children can create a square patch of material with an embroidery design.	Children can make their final piece of a leaf design using materials of their choice. Children can use more than one stitching technique for their chosen final design.
Summer – Food and Hygiene	The premise of this whole school project is to ensure every child explores the properties, preparation and design of a food product for a class picnic – The Mad Hatter’s Tea Party! All lessons follow the DT format of research - design - make - evaluate.						
	Make a Smoothie	Make a fruit salad.	Design, prepare and cut a range of vegetables to	Prepare a healthy and balanced sandwich.	Create and adapt a healthy	Design and make a healthy	Design and prepare a balanced picnic meal, including

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			make a healthy salad and a dressing.		flapjack recipe.	smoothie recipe.	carbohydrates, fats, fruit and vegetables, protein and sugars.
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