Cledford Primary School – DT Curriculum Yearly Overview

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
EYFS	<u>Physical development</u> Develop their small motor skills so that they can use a range of tools competently, safely and confidently. <u>Expressive Arts and Design</u> Explore, use and refine a variety of artistic effects to express their ideas and feelings. Return to and build upon their previous learning, refining ideas and developing their ability to represent them. Create collaboratively, sharing ideas, resources and skills. <u>Expressive Arts and Design</u> Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function. Share their creations, explaining the process they have used.					
Year 1	**Cooking and nutrition** Fruit and vegetables Learn to distinguish between fruit and vegetables and where they grow. Design a fruit and vegetable smoothie and accompanying packaging.		**Mechanisms** Wheels and axles Learn about the key parts of a wheeled vehicle, to develop an understanding of how wheels, axles and axle holders work. Design and make a moving vehicle.	**Textiles** Puppets Explore methods of joining fabric. Design and make a character-based hand puppet using a preferred joining technique, before decorating.	**Mechanisms** Moving storybook Explore slider mechanisms and the movement they output, to design, make and evaluate a moving storybook from a range of templates.	**Structures** Constructing a windmill Inspired by the song, 'Mouse in a windmill', design and construct a windmill for a client (mouse) to live in. Explore various types of windmill, how they work and their key features.
Year 2	**Cooking and nutrition** Balanced diet Learn about the food groups (carbohydrates, proteins, fruits and vegetables, dairy, oils and spreads) to understand a balanced diet to develop a healthy wrap.		**Textiles** Pouches Learn how to sew a running stitch ready to design, make and decorate a pouch using a template.	**Mechanisms** Fairground wheel Design and create a functional Ferris wheel, learn how different components fit together so that the wheel rotates and the structure stands freely.	**Structures** Baby Bear's Chair Explore stability and methods to strengthen structures, to understand Baby Bear's chair weaknesses and develop an improved solution for him to use.	**Mechanisms** Moving monsters Explore levers, linkages and pivots through existing products and experimentation, use this research to construct and assemble a moving monster.
Year 3	**Textiles** Cushions Learn and apply two new sewing techniques – cross-stitch and appliqué. Utilise these new skills to design and make a cushion.		**Mechanisms** Pneumatic toys Explore pneumatic systems, then apply this understanding to design and make a pneumatic toy including thumbnail sketches and exploded diagrams.	**Electrical systems** Electrical poster Our new electric poster unit introduces children to various forms of 'Information design' before they are briefed to develop an electric museum display based on the Romans.	**Structures** Constructing a castle Identify and learn about the key features of a castle, before designing and making a recycled-material castle (structure).	**Cooking and nutrition** Eating seasonally Learn about various fruits and vegetables, and when, where and why they are grown in different seasons. Discover the relationship between colour and health benefits.
Year 4	**Textiles** Cross stitch and applique To design and make an Egyptian collar	**Electrical systems** Torches Identify the difference between electrical and electronic products. Evaluate a range of existing torches and their features, then develop a new functional torch design.	**Mechanisms** Making a slingshot car Using a range of materials, design and make a car with a working slingshot mechanism and house the mechanism using a range of nets.	**Cooking and nutrition** Adapting a recipe Work in groups to adapt an existing biscuit recipe, whilst taking into account the cost of the ingredients and other expenses against a set budget.		**Structures** Pavillions Investigate and model frame structures to improve their stability, then apply this research to design and create a stable, decorated pavilion.

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Year 5	**Mechanisms** Making a pop-up book Create a functional four-page pop-up storybook design, using lever, sliders, layers and spacers to create paper-based mechanisms.	**Cooking and nutrition** What could be healthier? Discover the farm to fork process, understand the key welfare issues for rearing cattle. Compare the nutritional value of existing sauces and develop a healthier recipe.		**Electrical systems** Doodlers Explore series circuits further and introduces motors. Explore how the design cycle can be approached at a different starting point, by investigating an existing product, which uses a motor, to encourage pupils to problem-solve and work out how the product has been constructed, ready to develop their own.	**Structures** Bridges Test and analyse various types of bridge to determine their strength and stability. Explore material properties and sources, before marking, sawing and assembling a wooden truss bridge.	
Year 6	**Electrical systems** Steady hand games Understand what is meant by fit for purpose design and form follows function. Design and develop a steady hand game using a series circuit, including housing and backboard.			**Structures** Playgrounds Research existing playground equipment and their different forms, before designing and developing a range of apparatus to meet a list of specified design criteria.	**Cooking and nutrition** Come dine with me Develop a three-course menu focused on three key ingredients, as part of a paired challenge to develop the best class recipes. Explore each key ingredient's farm to fork process.	**Mechanisms** Automata toys Develop a functional automata window display, to meet the requirements in a design brief. Explore and create cam, follower and axle mechanisms to mimic different movements.