



DESIGN AND TECHNOLOGY CURRICULUM

INTENT

Here at St Wilfrid's, we aim to provide a design and technology curriculum that allows children to learn skills and acquire knowledge which is useful for later life. It is our intention that every child will be given the opportunity to learn and develop key knowledge and skills relating to design and technology as they move through school, including designing, constructing, and using finishing techniques to complete a product. They will look at 5 areas over their primary school years, these include: Textiles, Food and Nutrition, Structures, Mechanisms and Electrical Systems. Each year builds on prior knowledge and skills and electronics are introduced in KS2.

Autumn Term

	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5 and 6	Year 6
Autumn 1 or 2		Autumn 2 Moving Toys Mechanisms	Autumn 2 Puppets Textiles	Autumn 2 Moon Landers Structures	Autumn 2 Bridges Structures	Autumn 2 Christmas Fair Games Structures and Mechanisms	Autumn 1 WW2 Soups Cooking
Key knowledge and skills	<p>Build models using construction equipment.</p> <p>Christmas decorations and cards</p> <p>Teach children different techniques for joining materials, such as how to use adhesive tape and different sorts of glue.</p>	<p>To explore making mechanisms, understanding that sliders make things move and that they can move in different directions.</p> <p>To design a moving story book, showing a background and the moving parts.</p> <p>To construct a moving picture, drawing and cutting out moving parts and putting it all together.</p> <p>To evaluate my finished product, showing it to another child and identifying what I have learnt from doing the project.</p>	<p>To investigate a range of puppets and their features</p> <p>To be able to work with fabric to create a finger puppet.</p> <p>To develop and practise sewing skills.</p> <p>To be able to design a glove puppet.</p> <p>To be able to follow a design to make a puppet.</p> <p>To be able to evaluate a finished product.</p>	<p>To create a design criterion for the product.</p> <p>To investigate the properties of materials suitable for the product.</p> <p>To design a moon lander, taking into consideration research into the material properties.</p> <p>To construct a container (moon lander) to protect the inner package from damage.</p> <p>To test and evaluate the design and suggest how it could be improved if made again.</p>	<p>To research existing bridges and determine key design features.</p> <p>To design a bridge using drawings with labels.</p> <p>To use tools safely when working with paper, card and wood.</p> <p>To evaluate the effectiveness of the design and suggest changes that could improve performance.</p>	<p>To work co-operatively as part of a team.</p> <p>To create a product for a purpose and think about marketing and profit.</p> <p>To work safely using a range of different materials and tools for different purposes.</p> <p>To problem solve and come up with solutions to fix problems.</p> <p>To handle money, prizes and interact with the general public.</p>	<p>To know the history of food rationing, why it was necessary and the impact it had on society.</p> <p>To investigate which foods were rationed and analyse the way they were used to create meals.</p> <p>To compare a wartime soups with a modern day soup.</p> <p>To design a wartime soup, taking into consideration the ingredients that would have been available.</p> <p>To prepare a wartime soup, using a range of kitchen equipment safely.</p> <p>To evaluate my soup, taking into consideration what it may have been like in the war and eating the soup.</p>
Key vocabulary		Assemble, design, design criteria, evaluation, mechanism, model, sliders, stencil, target audience, template, test	Investigate, features, materials, fabric, equipment, resources, measurements, design, test, evaluate, aesthetic	Engineering, gravity, force, materials, impact, crack, protect, design,	beam bridge, arch bridge, truss bridge, strength, technique, corrugation, lamination, stiffness, rigid, factors, stability, visual appeal, aesthetics, joints, mark out, hardwood, softwood, wood file/rasp, sandpaper/glasspaper, bench hook/vice, tenon saw/coping saw, assemble, material properties, reinforce, evaluate	Existing productions, aesthetics, profit, stability, durable, materials, equipment, resources, measurements, design, test, evaluate	Rationing, ingredients, food supplies, allowances, prepare, limitations, seasonality, processed, grown

Spring Term

	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Spring 1 or 2		Spring 2 Fabric Bunting Textiles	Spring 1 All about bread Cooking	Spring 2 Easter Baking Cooking	Spring 2 Roman Coin Purse Textiles	Spring 1 Mechanisms (CAMS)	N/A
Key knowledge and skills	<p>Junk modelling</p> <p>Construction with a range of materials</p> <p>Playful making – box model vehicles</p> <p>Joining techniques – split pins</p>	<p>To evaluate existing products.</p> <p>To learn how to use a template to cut out paper and fabric.</p> <p>To create my own design for a section of bunting.</p> <p>To learn how to do running stitch.</p> <p>To develop my knowledge of joining materials using different methods, including running stitch and glue.</p>	<p>To learn about where bread comes from and how it is made.</p> <p>To create a design considering the aesthetic properties.</p> <p>To develop ideas for a bread product, thinking about its type and taste.</p> <p>To use practical skills to make bread.</p> <p>To design an advert for my product.</p> <p>To evaluate my product.</p>	<p>To learn about the hot cross bun and how it is made, and the ingredients contained.</p> <p>To analyse a simple recipe for a hot cross bun and make amendments, adapting the recipe for their own design criteria.</p> <p>To make a batch of hot cross buns using their own recipe.</p> <p>To evaluate the product, comparing against the design criteria.</p>	<p>To explore a range of containers and examine their features.</p> <p>To learn how to sew using a range of different stitches.</p> <p>To gather ideas for designing a container.</p> <p>To design a fabric money container.</p> <p>To make a money container using textiles.</p> <p>To evaluate a finished product.</p>	<p>To investigate existing products, identifying the movement of the cam mechanism and how they work.</p> <p>To explore how different cams work and what movements they make.</p> <p>To design a product following a design criterion, thinking about the intended audience and purpose.</p> <p>To make a moving toy, using a range of materials and tools safely and selecting appropriate joining techniques.</p> <p>To evaluate the final product against the design criteria.</p>	
Key vocabulary		Applique, button, binka, construct, design, evaluate, material, needle, stitch, template, thread (noun and verb)	Measure, weigh, ingredients, yeast, flour, wheat, water, sugar, equipment, kneading, mixing, proving, rising, taste, smell, texture	Hot cross bun, ingredients, flour, sugar, fruit, margarine, butter, mixing, cooling, baking, oven, temperature, weigh, measure, aesthetics, decoration	Applique, button, construct, design, fastening, hem, material, needle, pattern, pins, seam, stitch, tape measure, thread (noun and verb)	Cam shaft, snail cam, eccentric cam, movement, hand-powered mechanisms, linear motion, rotation, follower, slider, component	

Summer Term

	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Summer 1 or 2		Summer 2 Dips and Dippers Cooking	Summer 1 Lamps Structures	Summer 2 Flag Design Mechanisms and Textiles	Summer 2 Torches Electronics	Summer 1 Greek Feast Cooking	Summer 2 Memory Box Structures
Key knowledge and Skills	Designing and making scarecrows	To evaluate different dips To explore different dippers and describe them. To explain why I need to eat a balance and variety of food groups to stay healthy. To know how to make dips and dippers using a range of kitchen equipment safely. To plan my own appealing dip and dipper and clearly show my ideas. To follow my plan to make my dip and dipper.	To research existing lamps and understand the purpose of the product. To design a lamp inspired by the one Florence Nightingale used. To use a range of materials creatively to make a product. To use scissors to cut card and paper. To stick using a range of fastenings, including glue, masking tape and Sellotape.	To apply understanding of how to strengthen, stiffen and reinforce more complex structures. To use simple research methods to inform the design of products. To select from a wider range of tools and equipment to perform practical tasks with increasing accuracy. To select from and use a wider range of materials and components according to their properties. To evaluate their ideas and products against their own design criteria to make improvements	To learn about electrical items and how they work, knowing what insulators are and that a battery contains stored electricity. To analyse and evaluate electrical products, identifying the features of a torch and what is important about a torch design. To design a product to fit a set of specific user needs, taking into consideration the design criteria. To assemble a torch, creating the required circuit and any extra components. To evaluate my design against the design criteria.	To understand what foods would have been eaten by the Ancient Greeks and compare this to the food they are known for today. To taste and evaluate Greek food, thinking about the senses and how this would appeal to different people. To design a Greek style dish, thinking about ingredients that would be available in the climate. To make a Greek dish using a range of kitchen equipment safely. To evaluate the product by tasting it and gathering the opinion of others in order to suggest improvements.	To evaluate different types of boxes and deconstruct them to understand the assembly and net design. To create a design criteria and follow this when creating the product. To design a memory box following the design criteria, thinking carefully about how the initial structure will be created. To practice different types of join, using different materials. To make a memory box, using the techniques learnt and use equipment safely. To evaluate my design against the design criteria.
Key vocabulary		Ingredients, dips, evaluate, senses, dipper, taste, smell, equipment, dairy, protein, carbohydrate, diet, appearance, method, design, balanced diet, sensory, texture, starchy	Base, fixing, frame, join, lantern, lamp, materials, side, strong, structure, top, vertical, weak	Mechanism, lever, fulcrum/pivot, drive belt, axle, horizontal, vertical, design, experiment, technique, develop, evaluate, present	Battery, bulb, buzzer, conductor, circuit, circuit diagram, electricity, insulator, series circuit, switch, component, design, design criteria, diagram, evaluation, LED, model, shape, target audience, input, theme, aesthetics, assemble, properties, sketch, test	Climate, seasonal, ingredients, diet, balanced diet, ancient, modern, equipment, research, traditional, texture, taste, smell	3D shapes, strength, technique, corrugation, lamination, stiffness, rigid, factors, stability, visual appeal, aesthetics, joints, mark out, hardwood, softwood, wood file/rasp, sandpaper/glasspaper, bench hook/vice, tenon saw/coping saw, assemble, material properties, reinforce, evaluate