2024-2025

St Anne’s Design and Technology Curriculum

Subject overview and Progression

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SUBJECT LEADER

Intent

At St Anne's we intend to build a Design Technology curriculum which is inspiring, rigorous, and practical. We want our children to use creativity and imagination, to design and make products that solve real and relevant problems within a variety of contexts, considering their own and others' needs, wants and values.

We intend for all children to acquire appropriate subject knowledge, skills and understanding as set out in the National Curriculum.

It is our aim to create strong cross curricular links with other subjects, such as Mathematics, Science, Computing, and Art. We want Design and Technology to prepare our children, to give them the opportunities, responsibilities, and experiences they need to be successful in later life.

What do we need to experience? Why?	
When a child leaves our school they will…	**I am a St Anne's designer because…**
Be a confident person Be an independent thinker and self-starter Empathise with others Have an inquisitive mind Take risks with their learning Bounce back and move forward when faced with a challenge Be proactive and innovative Have a sense of belonging	• I use my creativity and imagination to design and create products • I can draw on my knowledge and skills to make products for specific audiences and purposes • I am resourceful, innovative and enterprising • I can critique, evaluate and test my own and others' ideas/products • I have the knowledge and expertise to participate in an increasingly technological world
Substantive Concepts	**Disciplinary Concepts**
Cooking and Nutrition Children need to know where food comes from, what a balanced diet looks like, as well as following recipes. They need to have preparation and cooking skills whilst also following kitchen hygiene and safety. **Structures** Our children need to have knowledge of materials and their functional and aesthetic properties, as well as their strength and stability. They will have knowledge of how to stiffen and reinforce structures. **Textiles** With textiles, children need to know how to fasten, sew and use decorative and functional fabric techniques such as cross stitch, blanket stitch and appliqué. **Mechanisms and Mechanical Systems** Children will learn how to mimic natural movements using mechanisms such as cams, followers, levers and sliders. **Electrical Systems** Children will create various electrical products through their knowledge of operational series circuits, circuit components, circuit diagrams and symbols.	• Researching products • Experimenting with different materials • Developing techniques • Creating for a purpose • Designing • Critiquing, analysing and evaluating

St Anne's Design and Technology Subject Overview

	Early Years	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Units covered	**Autumn Term** **Textiles** – Weaving (Focus using paper)	**Autumn Term** **Structures** – Design a house (Focus is hinges, doors, materials, design)	**Autumn Term** **Textiles –** Making Puppets (Focus is basic stitch using a pack, joining with fabric glue and stitch).	**Autumn Term** **Cooking and Nutrition** – Dips and dippers (Focus on selecting foods for a dip, varied diet, link to science)	**Autumn Term** **Textiles** – Make a Christmas decoration (Focus is 4 stiches, no pack)	**Autumn Term** **Structure** – To make a rover to go on Mars (focus is key skills, measuring, sawing etc.) (From Autumn 25)	**Autumn Term** **Textiles** – Make do and Mend (focus is making a piece of clothing from scrap fabric).
	Spring Term **Structures** – Making Bridges for the Gingerbread man (Focus using Lego, discuss strength)	**Spring Term** **Mechanisms** – Moving Minibeasts (Focus is sliding mechanism, wheel, levers and pivots, 2D)	**Spring Term** **Mechanism**– Make a mining cart (Focus is wheels with an axel)	**Spring Term** **Mechanical Systems** – Make a trebuchet (Focus on levers, linkages and pulleys)	**Spring Term** **Mechanical Systems** – Make a moving picture book (Focus on levers and linkages with more delicate materials)	**Spring Term** **Electrical Systems** – Use crumble kits (Computing Link) **Cooking and Nutrition** – Making Seasonal soup (Focus is understanding seasonality) (From Autumn 25)	**Spring Term** **Cooking and Nutrition** – Design a 3 course celebration meal (focus is independence and showing a range of preparing and cooking techniques). (From Autumn 25)
	Summer Term **Cooking and nutrition** – Fruit Salad (Focus is different fruits, where food comes from).	**Summer Term** **Cooking and Nutrition** – Making Ice lollies (Focus on healthy foods, what is good for an ice lolly, sweet and hygiene).	**Summer Term** **Cooking and nutrition** – Making Healthy Pizza's (Focus is healthy vegetables and cutting skills)	**Summer Term** **Structures – Design a** shelter for a natural disaster (Focus is selecting materials for strength and reinforcement)	**Summer Term** **Cooking and Nutrition** – Making Tudor Bread (Focus is how food is processed, improved, cooking a Savory item)	**Summer Term** **Mechanical Systems –** Make a way of collecting water e.g. Well (Focus is Gears)	**Summer Term** **Electrical Systems with Structures** – Making a vehicle including a motor. Electric circuit. (From Autumn 25)
Trips/Visits							
Disciplinary Concepts	Researching products Experimenting with different materials Developing techniques Creating for a purpose Designing	Researching products Experimenting with different materials Developing techniques Creating for a purpose Designing	Researching products Experimenting with different materials Developing techniques Creating for a purpose Designing	Researching products Experimenting with different materials Developing techniques Creating for a purpose Designing	Researching products Experimenting with different materials Developing techniques Creating for a purpose Designing	Researching products Experimenting with different materials Developing techniques Creating for a purpose Designing	Researching products Experimenting with different materials Developing techniques Creating for a purpose Designing

	Critiquing, analysing and evaluating	Critiquing, analysing and evaluating	Critiquing, analysing and evaluating	Critiquing, analysing and evaluating	Critiquing, analysing and evaluating	Critiquing, analysing and evaluating	Critiquing, analysing and evaluating
Substantive Concepts	• Textiles • Cooking and Nutrition, • Structures	• Cooking and Nutrition • Textiles • Mechanisms • Structures	• Cooking and Nutrition • Textiles • Mechanisms • Structures	• Cooking and Nutrition • Textiles • Mechanical • Systems • Structures	• Cooking and Nutrition, • Textiles, Mechanical • Systems • Structures	• Cooking and Nutrition, • Textiles, Mechanical • Systems • Structures	• Cooking and Nutrition, • Textiles, Mechanical • Systems • Structures, • Electrical Systems
St Anne's Design and Technology Journey (Progression in Knowledge and Skills)							
Cooking and Nutrition	**Design** ▪ Begin to understand what different types of food go together ▪ Name certain foods ▪ Design a recipe as a class with fruit	**Design** ▪ Name certain fruits ▪ Know which food types can go together. ▪ Design a recipe as a class ▪ Name ways to prepare certain foods ▪ Know that everyone should eat 5 portions of fruit and vegetables a day.	**Design** ▪ Know how different foods can be prepared. ▪ Suggest certain foods that would go on a pizza ▪ Design a recipe for a healthy pizza using the eat-well plate. ▪ Begin to understand a balanced diet ▪	**Design** ▪ Create a healthy and nutritious recipe dip based on the eat well plate and different food groups ▪ Suggest certain foods for a dip based on their texture, taste and smell ▪ Explain a balanced diet	**Design** ▪ Design a food product based on historical methods ▪ knowledge and understanding of modern bread, cooking and ingredients ▪ Research and develop a design criteria to be accurate ▪ Design a recipe based on research.	**Design** ▪ Adapt a traditional recipe understanding that the nutritional value of a recipe alters if you add or remove ingredients. ▪ Design a soup for a specific season using their knowledge of seasonality. ▪ Design what packaging would be needed if the soup were sold.	**Design** ▪ Design and write a recipe explaining the key steps, method and ingredients ▪ Include facts and drawings from research undertaken ▪ Work within a budget to create a meal ▪ Understand the differences between Savory and sweet
	Make ▪ Know why it is important to wash hands before handling food ▪ Chop playdough safely ▪ Chop fruit with support	**Make** ▪ Know why it is important to wash hands before handling food. ▪ Know how use techniques such as cutting, peeling and grating with some support. ▪ Know how to prepare a simple fruit dish	**Make** ▪ Know what hygiene needs to take place before handling food. ▪ Know and use techniques such as cutting, peeling and grating. ▪ Know how to assemble a pizza ready to cook, including rolling the dough. ▪ Assemble a pizza that meets their design brief.	**Make** ▪ Know how to prepare themselves and a work space to cook safely in ▪ Learn the basic rules to avoid food contamination. ▪ Know the different textures they could create using different techniques,	**Make** ▪ Follow a baking recipe from start to finish, including the preparation of ingredients. ▪ Cook safely using the basic hygiene rules ▪ Adapt a recipe to improve it or change to meet a different criteria.	**Make** ▪ Cut and prepare vegetables safely ▪ Weigh and measure ingredients accurately. ▪ Use equipment safely. Including knives, hot pans and hobs. ▪ Know how to avoid cross-contamination.	**Make** ▪ Follow a recipe including using the correct quantities of each ingredient. ▪ Adapt a recipe based on research ▪ Work to a given timescale ▪ Work safely and hygienically with independence

				cutting, peeling, grating and blending. ▪ Follow the instructions within a recipe.		▪ Follow a step-by-step method carefully to make a recipe.	
	Evaluate ▪ Taste and give opinions ▪ Understand that different people like different foods ▪ Describe some of the following when tasting food: look, feel, smell and taste	**Evaluate** te and evaluate different fruit mbinations scribe appearance, smell and te mpare with others their likes d dislikes	**Evaluate** ▪ Describe the taste and texture and smell of different vegetables ▪ Taste testing food combinations and different food products. ▪ Describe the information that should be included on a label should it be put in a shop.	**Evaluate** ▪ Establish and use design criteria to help test and review dishes. ▪ Suggest points of improvement for a dip such as adding an additional ingredient or taking one out. ▪ Describe some the benefits of the different foods used.	**Evaluate** ▪ Evaluate a recipe considering taste, smell, texture and appearance. ▪ Suggest modifications to a recipe	**Evaluate** ▪ Identify the nutritional differences between products and recipes ▪ Identify and describe the health benefits of their products. ▪ Suggest any adaptations for a recipe for taste and/or nutritional value.	**Evaluate** ▪ Evaluate a recipe, considering taste, smell , texture and ease of making. ▪ Taste test and score final products ▪ Suggest and write up points of improvement both independently and in a group ▪ Evaluate the health and safety production to minimise cross-contamination
	Technical Knowledge ▪ Recognise some common fruits ▪ Know that fruits are grown ▪ Know that eating fruit is good for us. ▪ Know that fruits have different tastes ▪ Know that fruit salad is a mixture of different fruits.	**Technical Knowledge** ▪ Understand the difference between fruit and vegetables ▪ Know that fruits are grown in different places. ▪ Know that a blender is a machine which mixes ingredients together in a smooth liquid. ▪ Know that fruit has seeds and a vegetable does not ▪ Know that fruit grows on trees, bushes or vines. ▪ Know that a freezer will make things solid.	**Technical Knowledge** ▪ Know that diet means the food and drink a person or animal usually eats ▪ Understand what makes a balanced diet ▪ Know where to find nutritional information on packaging ▪ Know that the 5 main food groups are: Carbohydrates, fruits and vegetables, protein, dairy and foods high in fat and sugar. ▪ Know that ingredients is items in a mixture or recipe.	**Technical Knowledge** ▪ Know that fruit and vegetables grow in different seasons. ▪ Know that cooking instructions are known as a recipe. ▪ Know that each fruit/vegetable gives us nutritional benefit because they contain vitamins, minerals and fibre.	**Technical Knowledge** ▪ Know that the amount of an ingredient in a recipe is known as quantity ▪ know that it is important to use oven gloves when removing hot food from an oven. ▪ Know the following cooking techniques, sieving, mixing, kneading, proving, baking and cooling.	**Technical Knowledge** ▪ Know that a recipe can be adapted to make it healthier by substituting ingredients. ▪ Know where different meats come from and how they are processed. ▪ Know different ways of cooking and preparing food such as frying and boiling.	**Technical Knowledge** ▪ Know that flavour is how a food or drink tastes ▪ Know that many countries have national dishes ▪ Know different food and drink contain different substances that are needed for health. ▪ Know that processed food means food that has been put through multiple

				▪ Know safety rules for using, storing and cleaning a knife safely.	▪ Understand the importance of budgeting while planning a recipe.		changes in a factory. ▪ Understand the importance of washing fruit and vegetables to remove dirt and insecticides. ▪ Understand what happens to a certain food before it ends up on the shelf.
Key Vocabulary	Fruit, strawberries, raspberry, mango, mix, fruit salad, recipe, chop, knife, safety	Blender, carton, fruit, healthy, ingredients, peel, peeler, recipe, slice, safety	Alternative diet, balanced diet, evaluation, expensive, healthy, ingredients, nutrients, packaging, refrigerator. Dough, topping, sauce	Cutting, peeling, grating, texture, smooth, weigh, measure, mix, adapt, equipment, quantity	Adapt, budget, equipment, evaluation, prototype, quantity, target customer, measurement, recipe, ingredients, method	Seasonal, vegetables, sustainable, ethical issues, supermarket, nutrients,	Adapt, budget, equipment, evaluation, prototype, quantity, target customer, measurement, recipe, ingredients, method.
Structures	**Design** ▪ Make verbal plans and material choices ▪ Use knowledge from exploration to inform design. ▪ Select resources from continuous provision for their project with support ▪ Make a design as a class	**Design** ▪ Learn the importance of a clear design brief/criteria ▪ Design and discuss a generic model as a class ▪ Include individual preferences within a design	**Design**	**Design** ▪ Design a product with key features to appeal to a specific person/purpose ▪ Draw and label using 2D shapes, 3D shapes that will create the features, the materials needed and the colours ▪ Begin to explore CAD software for designing.	**Design** ▪	**Design** ▪ Design a stable structure that is able to withstand weight e.g. testing equipment. ▪ Create a frame design with support using different materials e.g. wood. Focus on triangulation ▪ Use CAD software to design their product with support.	**Design** ▪ Design a moving car using a wooden structure including a motor. ▪ Design the aesthetics for their vehicle using a variety of materials. ▪ Use CAD to plan their product independently.
	Make ▪ Improve fine motor skills sticking specific bricks together ▪ Join materials in a variety of ways (permanent and temporary) ▪ Join different materials together	**Make** ▪ Make stable structures from card, cardboard, tape and glue ▪ Learn how to turn 2D nets into 3D shapes for houses ▪ Follow instructions to cut and assemble ▪ Measure and cut a range of materials with support.	**Make**	**Make** ▪ Construct a range of geometric shapes using nets ▪ Create special features for individual designs	**Make**	**Make** ▪ Use triangles to create structures that span a given distance and support a load ▪ Build a wooden structure, with some support, practicing the	**Make** ▪ Build a wooden structure using a range of materials independently. ▪ Independently build a wooden structure.

	▪ Describe their model and how they put it together ▪ Make predictions about their model	▪ Begin to assemble and join components together ▪ Begin to use finishing techniques to improve the appearance of their products.		▪ Make a range of different supports using different materials		measuring and cutting skill. ▪ With support and building independence measure and mark wood accurately. ▪ Select appropriate tools and equipment for tasks. ▪ Use the correct techniques to saw. ▪ Identify where a structure needs reinforcement. ▪ Understand basic wood function properties.	▪ Indepedently, measure, mark and cut/saw accurately. ▪ Use a range of materials to reinforce and add decoration to their vehicle.
	Evaluate ▪ Check to see if their model matches the design ▪ Give a verbal evaluation of their own and others' models with adult support. ▪ Consider what they would do differently if they were to do it again. ▪ Test and reflect their designs.	**Evaluate** ▪ Evaluate and check against the design criteria, does it match? ▪ Suggest points for improvement ▪ Begin to suggest other materials to use.	**Evaluate**	**Evaluate** ▪ Explore the features of structures ▪ Compare the stability of different shapes ▪ Test the strength of own structures ▪ Identify the weakest part of a structure ▪ Evaluate the strength, stiffness and stability of own structure	**Evaluate**	**Evaluate** ▪ Adapt and improve own structure by identifying points of weakness and reinforcing through testing. ▪ Suggest improvements for their design and others.	**Evaluate** ▪ Improve a design based on peer evaluation. ▪ Test and adapt their design. ▪ Identify what makes their structure successful
	Technical Knowledge ▪ Know there are a range of different materials that can be used to make a model/structure. ▪ Make simple suggestions to fix their model	**Technical Knowledge** ▪ Understand that the shape of materials can be changed to improve the strength and stiffness of structures. ▪ Begin to understand that different structures are	**Technical Knowledge**	**Technical Knowledge** ▪ Understand that wide and flat based objects are more stable ▪ Understand the importance of strength and stiffness in structures	**Technical Knowledge**	**Technical Knowledge** ▪ Understand different ways to reinforce structures. ▪ Understand how triangles are used to reinforce. ▪ Understand the choice of material	**Technical Knowledge** ▪ Know that structures can be strengthened by manipulating materials and shapes. ▪ Understand that in the world, design can impact users in

	▪ Know that some materials are strong and some are weak.	used for different purposes. ▪ Know that a structure is something that has been made and put together.		▪ To know that a paper net is a flat 2D shape that can become a 3D shape once assembled ▪ Know that the façade is the front of a structure ▪ To know that a design specification is a list of success criteria for a product.		and properties is key to design and effectiveness.	positive and negative ways ▪ Know that a prototype is a cheap model to test a design idea.
Key Vocabulary	Design, build, brick, Lego, Strong, Weak, Test	Cut, fold, join, fix structure, wall, tower, framework, weak, strong, base, top, underneath, side, edge, surface, thinner, thicker, corner, point, straight, curved, metal, wood, plastic circle, triangle, square, rectangle, cuboid, cube, cylinder		Structure, stability, strength, net, cube, cuboid, point		Wood, measure, reinforcement, stability, weight, balance, triangle, support, material.	Prototypes, structure, Computer Aided Design (CAD), Wood, reinforcement, fair testing, frame, axel, circuit.
Mechanisms (KS1) **Mechanical Systems (KS2)**		**Design** ▪ Explain how to adapt mechanisms using guides, sliders to control movement. ▪ Design a product that incudes a slider, wheel, lever and pivot ▪ Create clearly labelled drawings that illustrate movement needed	**Design** ▪ Begin to develop their design ideas using research and discussion with peers. ▪ Select a suitable linkage system to produce the desired motion ▪ Think of an idea and plan what to do next ▪ Understand the purpose of their product ▪ Develop their own ideas through drawings, make templates if appropriate.	**Design** ▪ Design a product using a pulley and lever system ▪ Develop a design criteria and brief ▪ Generate ideas using sketches and diagrams ▪ Learn that different types of drawings are used in design to explain ideas clearly ▪ Begin to explore CAD software with support to help design.	**Design** ▪ Design a moving book or poster using a lever and linkage mechanism ▪ Develop a design brief and personalise ▪ Use ideas from other people when designing ▪ Confidently make labelled drawings, showing specific features ▪ Adapt work when original does not work ▪ Being to be familiar with different inventors and designers. ▪ Understand that CAD designs could be an option.	**Design** a 'well' product to collect ing a mixture of structures and mechanisms ach mechanism, input and output accurately n a product using gears. or possible changes or problems their product using CAD re (tinercad) with some support.	**Design** ▪

		Make ▪ Follow a design to create moving models that use levers and sliders ▪ With help, measure and mark out and cut a range of materials ▪ Adapt mechanisms when: they do not work as they should, fit to a design, improve how they work after testing	**Make** ▪ Select materials according to their characteristics ▪ Follow a design brief ▪ Cut and assemble components neatly ▪ Follow a plan to use wheels and axels correctly	**Make** ▪ Create a pulley and lever system ▪ Select materials due to their functional and aesthetic characteristics ▪ Manipulate materials to create different effects by cutting, creasing, folding and weaving ▪ Refer back to design brief to check progress	**Make** ▪ Measure, mark, cut and assemble with increasing accuracy ▪ Be able to select which tool to use for a particular task ▪ Explain the process of input and output ▪ Make a model based on a design choice, referring back to the design brief	**Make** ▪ Follow a design brief for a product, neatly and with focus on accuracy. ▪ Make mechanical systems using gears accurately and to produce movement ▪ Use layers and spacers to hide the workings of mechanical parts to improve aesthetics. ▪ Name and use a range of tools competently ▪ Select appropriate materials, tools and techniques independently	**Make**
		Evaluate ▪ Test a finish product, seeing whether it moves as planned and if not, explain why and how it can be fixed. ▪ Review the success of a product by testing it with its intended audience.	**Evaluate** ▪ Evaluate different designs and compare ▪ Test and adapt a design ▪ Evaluate own designs against the design criteria. ▪ Use peer feedback to modify a final design.	**Evaluate** ▪ Use the views of others to improve design ▪ Test and modify the outcome, suggesting improvements ▪ Evaluate the effectiveness of their mechanisms and suggest how to improve	**Evaluate** ▪ Evaluate the final product based on its purpose and target audience ▪ Suggest improvements for designs ▪ Carry out appropriate tests ▪ Present a product in an interesting way	**Evaluate** ▪ Evaluate the work of others and take feedback on own work ▪ Suggest points of improvement ▪ Evaluate the effectiveness of the gear design and function ▪ Evaluate appearance against original criteria	**Evaluate**
		Technical Knowledge ▪ Know that a slider mechanism moves and object from side to side, ▪ Know that a slider mechanism has a slider, slots, guides and an object.	**Technical Knowledge** ▪ Know that there is always an input and output for a mechanism ▪ Know that the input is the energy that is used to start something working ▪ Know that an output is the movement that happens as a result of the input. ▪ Know that it is important to test my design as I am going	**Technical Knowledge** ▪ Understand how levers and pulleys work ▪ Begin to understand the forces that happen using their design. ▪ Understand how sketches, drawings and diagrams can be used to	**Technical Knowledge** ▪ Understand that all moving things have kinetic energy ▪ Understand that products change and evolve over time ▪ Know that graphics are images which are designed to explain or advertise something.	**Technical Knowledge** ▪ Know that mechanisms control movement ▪ Understand that mechanisms can change one kind of motion for another ▪ Understand how to use gears ▪ Know that CAD supports the design,	**Technical Knowledge**

			along so that I can solve any problems that may occur.	communicate design ideas ▪ Begin to understand how computers can be used to aid the design process.	▪ Know the input and output of using a lever and linkage system.	make and evaluate process and is used across the world ▪ Know that designers often want to hide mechanisms to make a product more aesthetically pleasing.	
Key Vocabulary		Slider, movement, measure, mechanism, slot, guide, object	Vehicle, wheel, axle, axle holder, chassis, body, cab assembling, cutting, joining, shaping, finishing, fixed, free, moving, mechanism names of tools, equipment and materials used	Catapult, forces, triangulation, elastic, energy, missile, launch, pivot, counterweight, payload, frame, beam	Mechanism, lever, linkage, pivot, slot, bridge, guide system, input, process, output	Pulley, drive belt, gear, rotation, spindle, driver, follower, ratio, transmit, axle, motor, circuit, switch, circuit diagram, annotated drawings, exploded diagrams, mechanical system, electrical system, input, process, output	
Textiles	**Design** ▪ Discuss what a good design needs ▪ Draw a simple pattern with paper ▪ Choose from available materials	**Design**	**Design** ▪ Desing a puppet with support ▪ Add In some personalisation ▪ Design with an audience and purpose in mind.	**Design**	**Design** ▪ Write design criteria and purpose for a decoration ▪ Design and draw accurately their decoration with labels referring to different stitches. ▪ Personalise their design	**Design**	**Design**
	Make ▪ Develop fine motor/cutting skills with scissors ▪ Explore fine motor/threading and weaving with a variety of materials ▪ Use a modelled one to support	**Make**	**Make** ▪ Select and cut fabrics for sewing ▪ Decorate using fabric glue or running stitch ▪ Thread a needle ▪ Sew running stitch, with evenly spaced, neat even stitches to join fabric and Over stitch. ▪ Neatly pin and cut fabric using a template	**Make**	**Make** ▪ Select and cut fabrics with ease using fabric scissors. ▪ Thread needles with greater independence. ▪ Tie knots with greater independence ▪ Sew cross stitch to join fabric ▪ Complete design ideas with stuffing and sew edges ▪ Embellish based on their own ideas/personalisation.	**Make**	**Make**

	Evaluate ▪ Reflect on a finished product and compare to the design and drawing pattern	**Evaluate**	**Evaluate** ▪ Evaluate the quality of the stitching ▪ Discuss the success of my stitching compare to the design and success criteria	**Evaluate**	**Evaluate** ▪ Use the views of others to adapt their design. ▪ Evaluate the speed of final product based on the time taken. Is it effective? ▪ Understand how their design is critiqued in the eyes of both the designer and a client.	**Evaluate**	**Evaluate**
	Technical Knowledge ▪ Know that a design is way of planning an idea before we start ▪ Know that weaving is putting one piece overlapping another	**Technical Knowledge**	**Technical Knowledge** ▪ Know that sewing is a method of joining fabric ▪ Know that different stitches can be used in sewing ▪ Understand the importance of tying a knot after sewing the final stitch.	**Technical Knowledge**	**Technical Knowledge** ▪ Know that when two edges of fabric have been joined together it is called a seam. ▪ Know that aesthetics are how a product looks. ▪ Know that a products function means its purpose ▪ Understand the need for patterns and seam allowances ▪ Know that a thimble can be used to protect my fingers when sewing.	**Technical Knowledge**	**Technical Knowledge**
Key Vocabulary	Weaving, design, pattern, decorate, safe, model		Fabric, names of fabrics, fastening, compartment, zip, button, structure, finishing technique, strength, weakness, stiffening, templates, stitch, seam, seam allowance		Fabric, names of fabrics, fastening, compartment, zip, button, structure, finishing technique, strength, weakness, stiffening, templates,		

					stitch, seam, seam allowance, stitch types		
Electrical Systems					▪ Technical knowledge and practising skill is linked with the science curriculum.	**Design** ▪ Develop design criteria based on findings from investigating existing products. ▪ Plan the positioning of a circuit component and its purpose ▪ Design an electrical product giving consideration to the target audience and create both design and success criteria	**Design** ▪ Design an electrical system, identify and name the components required ▪ Draw a design from three different perspectives that highlights target user ▪ Generate ideas through discussion and sketching ▪ Model ideas through prototypes.
						Make ▪ Make a product with a working electrical circuit and switch. ▪ Use appropriate equipment to cut and attached materials ▪ Breakdown the construction process into steps so that others can make the product.	**Make** ▪ Make and test a circuit. ▪ Adapt circuit depending on testing independently ▪ Adapt the design to cover the circuit safely considering aesthetics. ▪ Create a product guide for others to make the product with reference to the target audience.
						Evaluate ▪ Carry out a product analysis to look at the purpose of a product along with	**Evaluate** ▪ Test own and others electrical circuits and the

						its strengths and weaknesses. ▪ Analyse whether changes in configuration positively or negatively affect the existing product ▪ Peer evaluate the steps to build their product.	purpose it is intended for. ▪ Make suggestions for improvement to theirs and others ▪ Gather images and information about existing products and compare to their own.
						<u>Technical Knowledge</u> ▪ Know that series circuits only have one direction of the electricity to flow ▪ Know when there is a break in a series circuit, all components turn off.	**<u>Technical Knowledge</u>** ▪ Know that batteries contain acid, which can be dangerous if they leak ▪ Know the names of the components in a basic series circuit including a buzzer ▪ Know the difference between form and function ▪ Know that form over purpose means a product looks good but does not work very well
Key Vocabulary						Reed switch, toggle switch, push-to-make switch, push-to-break switch, light dependent resistor (LDR), tilt switch, light emitting diode (LED), bulb, bulb holder, battery, battery holder, USB cable, wire, insulator, conductor, crocodile clip control, program, system, input device, output device,	Reed switch, toggle switch, push-to-make switch, push-to-break switch, light dependent resistor (LDR), tilt switch, light emitting diode (LED), bulb, bulb holder, battery, battery holder, USB cable, wire, insulator, conductor, crocodile clip control, program, system, input device, output device,

						series circuit, parallel circuit	series circuit, parallel circuit

Implementation

Design and Technology is a crucial part of school life and learning and it is for this reason that as a school we are dedicated to the teaching and delivery of a high-quality Design and Technology curriculum.

This is implemented through:

- A well thought out, whole school, yearly overview of the DT curriculum which allows for progression across year groups in all areas of DT (textiles, mechanisms, structures, food and electrical systems)
- Well planned and resourced projects providing children with a hands-on and enriching experience
- A range of skills being taught ensuring that children are aware of health and safety issues related to the tasks undertaken
- Teachers being given ownership and flexibility to plan for Design and Technology; often teaching DT as a block of lessons to allow the time needed for the children to be critical, inventive and reflective on their work.
- Each project from Year 1 to Year 6 addressing the principles of designing, making, and evaluating and incorporating relevant technical knowledge and understanding in relevant contexts.
- Pupils being introduced to specific designers, chefs, nutritionists, etc. helping to engender an appreciation of human creativity and achievement and increase the cultural capital from which they can draw in the future.

As a school, we promote Design and Technology in the wider school through an after school gardening club for Key stage 2 children where they learn about where food comes from by growing their own, and the importance of a balanced, healthy and varied diet and how to prepare this. We grow and harvest a range of vegetables.

Early Years Foundation Stage

During the EYFS pupils explore and use a variety of media and materials through a combination of child initiated and adult directed activities. They have the opportunities to learn to:

- Use different media and materials to express their own ideas
- Use what they have learnt about media and materials in original ways, thinking about form, function and purpose
- Make plans and construct with a purpose in mind using a variety of resources
- Develop skills to use simple tools and techniques appropriately, effectively and safely
- Select appropriate resources for a product and adapt their work where necessary
- Cook and prepare food adhering to good health and hygiene routines

Impact

Children will have clear enjoyment and confidence in Design and Technology that they will then apply to other areas of the curriculum. Through carefully planned and implemented learning activities the pupils develop the creative, technical and practical expertise needed to perform everyday tasks confidently and to participate successfully in an increasingly technological world. They gain a firm foundation of knowledge and skills to see them equipped to take on further learning beyond primary school. Pupil's skills and knowledge are assessed by the class teacher, throughout lessons and a summative assessment is completed termly. This informs the Design and Technology coordinator of any further areas for curriculum development, pupil support and/or training requirements for staff. EYFS pupils' progress and attainment tells us whether each individual child is below expected, at expected or above expected attainment for their age.