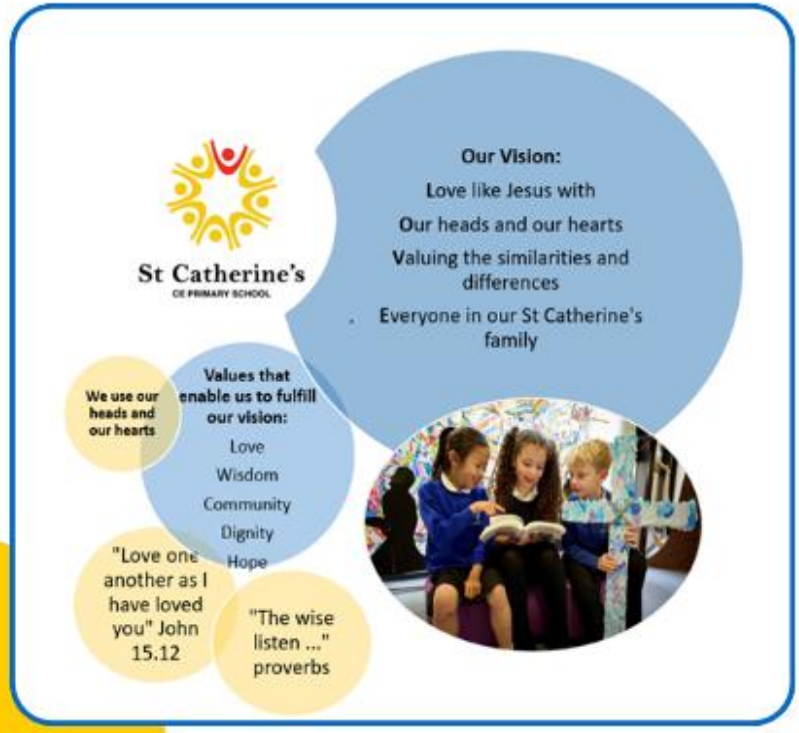
ST CATHERINE'S CE PRIMARY SCHOOL
DESIGN & TECHNOLOGY CURRICULUM PROGRESSION



At St Catherine's, Design and Technology plays a meaningful role in helping children live out our Christian vision: "We love like Jesus with our heads and our hearts, valuing the similarities and differences of everyone in our St Catherine's family." Through engaging and purposeful projects, children are encouraged to use their creativity and problem-solving skills to design solutions that serve others, demonstrating love, empathy, and care—just as Jesus did.

Design and Technology allows pupils to explore how their ideas can make a difference in the world. Whether designing for a friend, a family member, or a wider community need, children are taught to consider the feelings, preferences, and needs of others, promoting compassion and understanding. They learn to listen respectfully to others' ideas, work as a team, and celebrate the unique contributions that each person brings.

As they plan, make, and evaluate their projects, children learn to think critically (with their heads) and act compassionately (with their hearts), growing in confidence and resilience. The collaborative nature of Design and Technology helps them appreciate differences in culture, background, and ability, reflecting the inclusive and loving community we strive for at St Catherine's.

In this way, Design and Technology encourages children to love, serve, and value one another in all that they do.

St Catherine's CofE Design and Technology Progression Map

	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Key Vocabulary	circle, triangle, square, rectangle, pull, push, up, down, straight, curve, forwards, backwards, make, metal, wood, plastic	**Mechanisms** axle, axle holder, better, careful, choose, compare, design, dislike, like, mechanism, movement, product, straight line, tool, turn, user, wheel, worse. **Structures** better, cut, design, dislike, even, explain, freestanding, join, like, product, stable, structure, unstable, user, worse. **Textiles** design, sketch, choose, tools, straight line, space, even, safety, like, thread, needle, fabric, stitch, weave.	**Mechanisms** evaluation, input, lever, linear motion, linkage, mechanical, mechanism, motion, oscillating motion, output, pivot, reciprocating motion, rotary motion, survey.. **Cooking and Nutrition** appearance, balanced, carbohydrates, combination, dairy, design, design brief, diet, feel, grate. grater, menu, oils, prepare, proteins, review, scissors, smell, snip, spread, spreads. **Textiles** accurate, fabric, knot, pouch, running stitch, sew, shape, stencil, template, thimble	**Digital World** analogue, analyse, annotate, badge, CAD, control, design criteria, develop, digital, digital revolution, digital world, display, electronic, fastening, feature, feedback, form, function, initiate, layers, loops, Micro:bit, monitor, net, point of sale, product, product concept, program, sense, stimulator, smart, technology, test, user, **Cooking and Nutrition** arid, climate, complementary, country, export, import, Mediterranean, mock-up, mountain, peel, polar, seasonal, seasons, snip, temperate, texture, tropical, weather. **Structures** 2D shapes, 3D shapes, castle, design criteria, evaluate, facade, feature, flag, net, recyclable, scoring, stable, strong, structure, tab, weak.	**Textiles** aesthetic, assemble, book sleeve, design criteria, evaluation, fabric, fastening, mock-up, net, running-stitch, stencil, target audience, target customer, template. **Electrical Systems** battery, bulb, buzzer, cell, component, conductor, copper, design criteria, electrical item, electricity, electronic item, function, insulator, series circuit, switch, test, torch, wire. **Digital World** advantage, annotate, assemble, aesthetic, block, brand identity, brand, bug, CAD, clipart, coding, criteria, debug, design, develop, disadvantage, display, ergonomic, evaluate, exhibition, feedback, form, function, join, logo, loop, mindfulness, model, net, product, program, prototype, research, script, sketchpad, test, timer, user, variable.	**Mechanisms** pulley system, research, sustainability, teeth. **Cooking and Nutrition** abattoir, adaptation, balanced, beef, brand, cook, cross-contamination, develop, enhance, equipment, farm, label, measure, nutrient, nutrition, nutritional value, preference, press, process, safety, theme. **Electrical Systems** annotate, assemble, electrical component, motor, battery, circuit, electricity.	**Electrical Systems** assemble, battery, battery pack, benefit, bulb, bulb holder, buzzer, circuit, circuit symbol, component, conductor, copper, design, design criteria, evaluation, fine motor skills, fit for purpose, form, function, gross motor skills, insulator, LED, user. **Textiles** innovative, pattern piece, seam allowance. **Enterprise Project** function, innovative, design specification, design brief, user, purpose design brief, design specification, prototype, annotated sketch, purpose, user, innovation, research, functional, mock-up, prototype

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Technical Knowledge and Understanding	**Characteristics of effective learning:** Show curiosity about objects, events and people Questions why things happen Engage in open-ended activity Thinking of ideas Find ways to solve problems / find new ways to do things / test their ideas Use senses to explore the world around them Create simple representations of events, people and objects Planning, making decisions about how to approach a task, solve a problem and reach a goal Checking how well their activities are going Changing strategy as needed Reviewing how well the approach worked	**Mechanisms** Recognising and exploring everyday objects that have mechanisms. Recognising everyday objects that use a slider mechanism (e.g. drawers, sliding doors, paper trimmer). To know that a mechanism is the parts of an object that move together. To know that a slider mechanism moves an object from side to side. To know that a slider mechanism has a slider, slots , guides and an object. To know that bridges and guides are bits of card that purposefully restrict the movement of the slider. Recognising and exploring everyday objects that have mechanisms. Many things that move have parts inside to help them work. Mechanisms usually limit unwanted movement. An axle allows the wheel to turn without falling off. To know that wheels need to be round to rotate and move. To understand that for a wheel to move, it must be attached to a rotating axle. To know that an axle moves within an axle holder which is fixed to the vehicle or toy. To know that the frame of a vehicle (chassis) needs to be balanced.	**Mechanisms** To know everyday objects have mechanisms. To know many things that move have parts inside to help them work. To know mechanisms usually limit unwanted movement. To know everyday objects utilise wheels and axles. To know wheels must be able to turn to work effectively. To know axles allow wheels to turn without falling off. To know that mechanisms are a collection of moving parts that work together as a machine to produce movement. To know that there is always an input and output in a mechanism. To know that an input is the energy that is used to start something working. To know that an output is the movement that happens as a result of the input. To know that a lever is something that turns on a pivot. To know that a linkage mechanism is made up of a series of levers. Recognising and exploring everyday objects that have mechanisms. Exploring everyday objects that use levers (e.g	**Digital World** To understand that, in programming, a 'loop' is code that repeats something again and again until stopped. To know that a Micro:bit is a pocket-sized, codeable computer. To know that a simulator is able to replicate the functions of an existing piece of technology. **Cooking and Nutrition** To know that seasonal means foods that grow in a given season in a given country. To know some seasonal foods that grow in the UK and what season they grow in. To know that eating seasonal foods can have a positive impact on the environment. To know how to describe the flavour and texture of foods. To know how to cut and peel safely. To know that the appearance of food is as important as taste. To know that similar coloured fruits and vegetables often have similar nutritional benefits.	**Textiles** To know that a fastening is something which holds two pieces of material together for example a zipper, toggle, button, press stud and velcro. To know that different fastening types are useful for different purposes. To know that creating a mock up (prototype) of their design is useful for checking ideas and proportions. **Electrical Systems** To understand that an electrical system is a group of parts (components) that work together to transport electricity around a circuit. To understand common features of an electric product (switch, battery or plug, dials, buttons, etc.). To list examples of common electric products (kettle, remote control etc.). To understand that an electric product uses an electrical system to work (function). To know the name and appearance of a bulb, battery, battery holder and crocodile wire to build simple circuits.	**Mechanisms** That mechanical systems that use gears in everyday objects (e.g. bicycle, clock). That gears and pulleys allow us to transfer movement and force from one part of a mechanical system to another. That gears allow us to increase the output of a mechanism. **Cooking and Nutrition** To know that beef comes from cows reared on farms. To know that recipes can be adapted to suit nutritional needs and dietary requirements. To know that nutritional information is found on food packaging. To know that coloured chopping boards can prevent cross-contamination. To know that food packaging serves many purposes. **Electrical Systems** Beginning to understand that electricity flows around a circuit. Using different components to produce different results from electrical systems. Creating working electrical circuits with a wider variety of electrical components.	**Electrical Systems** To know that batteries contain acid, which can be dangerous if they leak. To know the names of the components in a basic series circuit, including a buzzer. To know that 'form' means the shape and appearance of an object. To know the difference between 'form' and 'function'. To understand that 'fit for purpose' means that a product works how it should and is easy to use. To know that form over purpose means that a product looks good but does not work very well. To know the importance of 'form follows function' when designing: the product must be designed primarily with the function in mind. To understand the diagram perspectives 'top view', 'side view' and 'back'. **Textiles** Using pins effectively to secure a template to

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		Structures Recognising that different structures are used for different purposes. Exploring the features of structures. Describing structures as buildings or freestanding structures. Making stable structures from card. Creating supporting structures to aid stability. Using stable objects like cylinders to create structures. To understand that cylinders are a strong type of structure (e.g. the main shape used for windmills and lighthouses). To understand that axles are used in structures and mechanisms to make parts turn in a circle. To begin to understand that different structures are used for different purposes. To know that a structure is something that has been made and put together. To know that the sails or blades of a windmill are moved by the wind. To know that a structure is something built for a reason. To know that stable structures do not topple. To know that adding weight to the base of a structure can make it more stable **Textiles** Discussing fabric properties.	scissors, tongs, door handle, stapler). **Cooking and Nutrition** To know that 'diet' means the food and drink that a person or animal usually eats. To know what makes a balanced diet. To know that the five main food groups are: Carbohydrates, fruits and vegetables, protein, dairy and foods high in fat and sugar. To know that I should eat a range of different foods from each food group, and roughly how much of each food group. To know that 'ingredients' means the items in a mixture or recipe. To know how to cut, grate, snip and spread to prepare foods. To know how to review and give a score to evaluate. **Textiles** To know that sewing is a method of joining fabric To know that different stitches can be used when sewing. To understand the importance of tying a knot after sewing the final stitch.	**Structures** To know that creating accurate shapes improves how they look and sometimes their function. To know good suggestions help give better feedback. To know that they can choose to use feedback or not. To know that a shell structure is a hollow shape with a thin outer layer. To know that 3D shapes can form structures. To know structures can be strengthened by manipulating materials and shapes. To know the following features of a castle: flags, towers, battlements, turrets, curtain walls, moat, drawbridge and gatehouse - and their purpose. To know that a façade is the front of a structure. To understand that a castle needed to be strong and stable to withstand enemy attack. To know that a paper net is a flat 2D shape that can become a 3D shape once assembled. To know that a design specification is a list of success criteria for a product.	To understand the importance and purpose of information design. To understand how material choices (such as mounting paper to corrugated card) can improve a product to serve its purpose (remain rigid without bending when the electrical circuit is attached). **Digital World** To understand what variables are in programming. To know some of the features of a Micro:bit. To know that an algorithm is a set of instructions to be followed by the computer. To know that it is important to check my code for errors (bugs). To know that a simulator can be used as a way of checking your code works before installing it onto an electronic device.	Deconstructing electrical systems to understand how they work. To know that series circuits only have one direction for the electricity to flow. To know when there is a break in a series circuit, all components turn off. To know that an electric motor converts electrical energy into rotational movement, causing the motor's axle to spin. To know a motorised product is one which uses a motor to function.	fabric without creases or bulges. Tying knots at the end of thread to secure it. Attaching objects like buttons using thread. To know how designers use pattern pieces when creating textile products. To know how nets can be folded to create 3D shapes. To know safety pins can golf fabric in place before sewing. To know consistently sized stitches improve the aesthetic of a product. To know the shape of a product can affect both its aesthetics and function. To know aesthetics is how something looks. To know complete products are sometimes made in parts that are sewn together. To understand that it is important to design clothing with the client/ target customer in mind. To know that using a template (or clothing pattern) helps to accurately mark out a design on fabric. To understand the importance of

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		Threading large needles. Rehearsing sewing techniques with large needles and thick thread, like wool. Sewing a running stitch in large-weave embroidery fabric or hessian. Creating patterns and following them with stitching. Spacing stitches evenly. To know drawings are a way to explain ideas. To know that choosing different materials or components will affect what the product does or looks like. To know the names of common pieces of equipment. To know that following instructions helps with safety. To know that spacing cuts or marks evenly can be useful. To know that exture is how something feels. To know their ideas or products can be made better. To know their final product might be different to their original idea. To know their ideas can make someone else's work better. To know other people's ideas can help make their work better. To know evenly spaced stitches help when following a pattern. To know that 'joining technique' means connecting	To know that a thimble can be used to protect my fingers when sewing.				consistently sized stitches.

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		two pieces of material together. To know that there are various temporary methods of joining fabric by using staples, glue or pins. To understand that different techniques for joining materials can be used for different purposes. To understand that a template (or fabric pattern) is used to cut out the same shape multiple times. To know that drawing a design idea is useful to see how an idea will look.					
Designing		**Mechanisms** Thinking about what others might want from a design. Beginning to recognise how products and designs in the world around us solve certain needs. Considering who they are designing for – by identifying the user. Stating what they intend to make and why – by identifying the purpose Talking about ideas with purpose and user in mind. Talking about existing products when generating ideas. Creating mock-ups to communicate designs. Explaining how to adapt mechanisms, using bridges or guides to control the movement.	**Mechanisms** Conducting simple surveys or discussions to gather opinions on what others need or like in a design. Knowing that a survey is used to find out what people like. Using a simple design brief that outlines the intended use, target user, and key features of the product, to create simple design criteria. Knowing that a design brief helps to decide what to make. Knowing that design criteria are the steps for making a product successful. Creating ideas with design criteria in mind.	**Digital World** Problem solving by suggesting which features on a Micro:bit might be useful and justifying my ideas. Drawing and manipulating 2D shapes, using computer-aided design, to produce a point of sale badge. Developing design ideas through annotated sketches to create a product concept. Developing design criteria to respond to a design brief. **Cooking and Nutrition** Describing how climate affects where foods grow. **Structures**	**Textiles** Writing design criteria for a product, articulating decisions made. Designing a personalised book sleeve. **Electrical Systems** Carry out research based on a given topic (e.g. The Romans) to develop a range of initial ideas. Generate a final design for the electric poster with consideration to the client's needs and design criteria. Design an electric poster that fits the requirements of a given brief.	**Mechanisms** Noticing wider-reaching problems or needs in the community. Identifying a wide range of needs and potential barriers through market research. Writing more complex problem statements that consider multiple factors and constraints. Creating more complex design criteria that require considering detailed user needs, environmental impact, materials and cost. Coming up with a broader range of ideas and deeper innovation, requiring pupils to think critically about their ideas' practicality and originality. Beginning to use more complex annotated sketches, such as cross-sectional and exploded diagrams and pattern pieces in design.	**Electrical Systems** Designing a steady hand game - identifying and naming the components required. Drawing a design from three different perspectives. Generating ideas through sketching and discussion. Modelling ideas through prototypes. Understanding the purpose of products (toys), including what is meant by 'fit for purpose' and 'form over function'. **Textiles** Beginning to use more complex annotated sketches, such as cross-sectional and

St Catherine's CofE Design and Technology Progression Map

		Designing a moving story book for a given audience. Thinking about what others might want from a design. Beginning to recognise how products and designs in the world around us solve certain needs. Considering who they are designing for - by identifying the user. Stating what they intend to make and why - by identifying the purpose. Talking about ideas with purpose and user in mind. Talking about existing products when generating ideas. Using basic drawing skills to communicate ideas. Designing a vehicle that includes wheels, axles and axle holders, that when combined, will allow the wheels to move. Creating clearly labelled drawings that illustrate movement. **Structures** Thinking about what others might want from a design. Beginning to recognise how products and designs in the world around us solve certain needs. Considering who they are designing for – identifying the user Stating what they intend to make and why – identifying the purpose.	Referring to specific parts of existing products when generating ideas. Knowing that the design criteria help when thinking of ideas. Using labels to explain parts of a design, label materials, etc. Using labels to explain parts of a design, label materials, etc. Knowing that drawings can help explain how something works. Knowing that a label explains part of a drawing. Creating a class design criteria for a moving monster. Designing a moving monster for a specific audience in accordance with a design criteria. Creating ideas with design criteria in mind. Referring to specific parts of existing products when generating ideas. Using labels to explain parts of a design, label materials etc, including using ICT. Integrating moving parts when creating mock-ups. **Cooking and Nutrition** Designing three wrap ideas **Textiles** Designing a pouch.	Creating simple design criteria that outline basic functionality and appeal to individual users or target audiences. Designing a castle with key features to appeal to a specific person/purpose. Drawing and labelling a castle design using 2D shapes, labelling: -the 3D shapes that will create the features - materials needed and colours. Designing and/or decorating a castle tower on CAD software.	Plan the positioning of the bulb (circuit component) and its purpose. **Digital World** Writing design criteria for a programmed timer (Micro:bit). Exploring different mindfulness strategies. Applying the results of my research to further inform my design criteria. Developing a prototype case for my mindful moment timer. Using and manipulating shapes and clipart by using computer-aided design (CAD), to produce a logo. Following a list of design requirements.	Using a series of prototypes to refine and improve their designs. **Cooking and Nutrition** Researching existing recipes. Suggesting alternative ingredients. Designing a jar label. **Electrical Systems** Creating more complex design criteria that require considering detailed user needs, environmental impact, materials and cost. Developing more independence in generating ideas. Coming up with a broader range of ideas and deeper innovation, requiring pupils to think critically about their ideas' practicality and originality. Using a series of prototypes to refine and improve their designs. Identifying factors that could be changed on existing products and explaining how these would alter the form and function of the product. Developing design criteria based on findings from investigating existing products. Developing design criteria that clarifies the target user.	exploded diagrams and pattern pieces in design. Designing a waistcoat in accordance with a specification linked to set of design criteria. Annotating designs, to explain their decisions.

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		Talking about ideas, with purpose and user in mind. Talking about existing products when generating ideas. Using basic drawing skills to communicate ideas. Learning the importance of a clear design criteria Including individual preferences and requirements in a design **Textiles** Stating what they intend to make and why - identifying the purpose. Talking about ideas, with purpose and user in mind. Using basic drawing skills to communicate ideas. Using a template to create a design for a puppet.					
Making	**Early Learning Goals:** Choose the resources they need for their chosen activities Handle equipment and tools effectively Children know the importance for good health of a healthy diet They safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function.	**Mechanisms** Planning more than one step ahead. Choosing between a small number of materials, ingredients or components. Explaining their choices based on personal experiences. Requesting equipment appropriate to the purpose. (e.g. scissors for cutting, glue for joining). Explaining in simple terms why certain tools must be handled carefully.	**Mechanisms** Choosing materials, ingredients or components from a wider range of materials, ingredients or components. Explaining their choices based on the properties of materials and components. Knowing some properties of materials like hard, soft, flexible, waterproof, strong etc. Following and recalling simple safety instructions.	**Digital World** Following a list of design requirements. Writing a program to control (button press) and/or monitor (sense light) that will initiate a flashing LED algorithm. **Cooking and Nutrition** Identifying seasonal ingredients from the UK.	**Textiles** Making and testing a paper template with accuracy and in keeping with the design criteria Measuring, marking and cutting fabric using a paper template. Selecting a stitch style to join fabric. Working neatly by sewing small, straight stitches. Incorporating a fastening to a design.	**Mechanisms** Consistently apply safety instructions. Select appropriate scissors to handle delicate cutting tasks and challenging materials. Cutting patterns and drawings accurately. In supervised groups, using hot glue guns safely. Recognising that hot glue is useful for joining materials that need a strong bond that sets quickly. Choosing PVA glue over hot glue for its safety when joining	**Electrical Systems** Constructing a stable base for a game. Accurately cutting, folding and assembling a net. Decorating the base of the game to a high quality finish. Making and testing a circuit. Incorporating a circuit into a base.

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	Children use what they have learnt about media and materials in original ways, thinking about uses and purposes. They represent their own ideas, thoughts and feelings through design and technology	Following and recalling simple safety instructions. Beginning to use objects with a fixed width or length to create even spacing of markings or cuts. (e.g. a lolly stick). Refining their grip to cut competently and confidently. Cutting straight lines and evenly spaced lines. Beginning to cut large shapes and thicker materials like card. Puncturing holes Applying masking tape to fix something in place or join to edges. Using tools, like scissors, to create shapes. Beginning to cut large shapes and thicker materials like card. Following a design to create moving models that use levers and sliders. Planning more than one step ahead. Choosing between a small number of materials, ingredients or components. Explaining their choices based on personal experiences. Requesting equipment appropriate to the purpose (e.g. scissors for cutting and glue for joining). Explaining in simple terms why certain tools must be handled carefully. Following and recalling simple safety instructions. Finding the middle of an object.	Knowing that some tools are sharp like scissors and knives. Choosing known geometric shapes when making. Beginning to shape objects to improve how they work. Knowing the names of some geometric shapes: triangle, pyramid, square, cube, circle, sphere. Considering balance in their finishing, like evenly spaced decoration. Making linkages using card for levers and split pins for pivots. Experimenting with linkages adjusting the widths, lengths and thicknesses of card used. Cutting and assembling components neatly. Integrating moving parts when creating mock-ups. Planning more than one step ahead. Choosing materials or components from a wider range of materials or components. Choosing between pieces of equipment that are used for the same purpose (e.g. joining) and explaining why their choice suits the task. Explaining their choices based on the properties of materials and components. Following and recalling simple safety instructions. **Cooking and Nutrition**	Following the instructions within a recipe. Tasting seasonal ingredients. Peeling foods by hand or with a peeler. Cutting ingredients safely. Choosing ingredients based on a design brief. **Structures** Creating accurate shapes from templates. Cutting out more complex shapes accurately. Cutting out more complex shapes accurately. Constructing a range of 3D geometric shapes using nets. Creating special features for individual designs. Making facades from a range of recycled materials.	**Electrical Systems** Create a final design for the electric poster. Mount the poster onto corrugated card to improve its strength and allow it to withstand the weight of the circuit on the rear. Measure and mark materials out using a template or ruler. Fit an electrical component (bulb). Learn ways to give the final product a higher quality finish (e.g. framing to conceal a roughly cut edge). **Digital World** Developing a prototype case for my mindful moment timer. Creating 3D structures using modelling materials. Programming a micro:bit in the Microsoft micro:bit editor, to time a set number of seconds/minutes upon button press.	materials in less intensive projects. **Cooking and Nutrition** Writing an alternative recipe. Understanding cross-contamination. Using preparation skills. Making a developed recipe. **Electrical Systems** Producing lists of equipment, materials and tools that they need for a task. Creating a step-by-step plan for making. Selecting materials, components or ingredients based on research or user needs. Explaining their choices, referring to their research. Understanding and explaining each safety rule's importance. Consistently apply safety instructions. Balancing aesthetics and functionality when creating parts of a design. Considering when best to apply finishing effects. Altering a product's form and function by tinkering with its configuration. Making a functional series circuit, incorporating a motor. Constructing a product with consideration for the design criteria.	**Textiles** Using a ruler to accurately measure and draw lines and marks. Using nets to create 3D objects. Using a combination of joining techniques to ensure strong joins (for example, using safety pins to hold fabric in place while a running stitch is sewn). Using a template when cutting fabric to ensure they achieve the correct shape. Using pins effectively to secure a template to fabric without creases or bulges. Marking and cutting fabric accurately, in accordance with their design. Sewing a strong running stitch, making small, neat stitches and following the edge. Tying strong knots. Decorating a waistcoat, attaching features (such as appliqué) using thread. Finishing the waistcoat with a secure fastening (such as buttons). Learning different decorative stitches.

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		Refining their grip to cut competently and confidently. Cutting straight lines and evenly spaced lines. Beginning to cut large shapes and thicker materials like card. Puncturing holes. Recognising the edges of paper and card need to be stuck firmly using a glue stick. Using tools, like scissors, to create shapes. Beginning to cut large shapes and thicker materials like card. Beginning to use controlled painting or colouring techniques to finish a product. Adding texture to create visual interest. Adapting mechanisms: - when they do not work as they should; - to fit their vehicle design; -to improve how they work after testing their vehicle. **Structures** Choosing between a small number of materials, ingredients or components. Explaining their choices based on personal experiences. Explaining in simple terms why certain tools must be handled carefully. Following and recalling simple safety instructions.	Chopping foods safely to make a wrap. Constructing a wrap that meets a design brief. Grating foods to make a wrap. Snipping smaller foods instead of cutting. Spreading soft foods to make a wrap. Identifying the five food groups. Learning about a balanced diet. **Textiles** Selecting and cutting fabrics for sewing. Decorating a pouch using fabric glue or running stitch. Threading a needle. Sewing running stitch, with evenly spaced, neat, even stitches to join fabric. Neatly pinning and cutting fabric using a template.			Breaking down the construction process into steps so that others can make the product.	Sewing accurately with evenly spaced, neat stitches.

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		Using a straightedge to draw a straight line. Beginning to use objects with a fixed width or length to create even spacing of markings or cuts. (e.g. a lolly stick). Using a large plastic needle and large-weave embroidery fabric to begin to create a running stitch. Applying masking tape to fix something in place or join to edges. Adding texture to create visual interest. Cutting fabric neatly with scissors. Using joining methods to decorate a puppet. Sequencing steps for construction. Choosing between a small number of materials, ingredients or components. Explaining their choices based on personal experiences. Requesting equipment appropriate to the purpose. (e.g. scissors for cutting, glue for joining) Beginning to use objects with a fixed width or length to create even spacing of markings or cuts (e.g. a lolly stick). Refining their grip to cut competently and confidently. Cutting straight lines and evenly spaced lines. **Textiles**					

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		Beginning to cut large shapes and thicker materials like card. Making stable structures from card. Following instructions to cut and assemble the supporting structure of a windmill. Making functioning turbines and axles which are assembled into a main supporting structure Finding the middle of an object. Puncturing holes. Adding weight to structures. Creating supporting structures. Cutting evenly and carefully.					
Evaluating		**Mechanisms** Discussing existing products, saying what they like about them. Discussing how their products could be improved based on personal preferences. Saying what they like about their peers' designs and products. Accepting feedback and understanding it is meant to improve their work. Testing a finished product, seeing whether it moves as planned and if not, explaining why and how it can be fixed.	**Mechanisms** Discussing a range of existing products and saying what they like and dislike about them. Evaluating existing products against design criteria. Evaluating their ideas and creations against simple design criteria. Knowing that design criteria help to decide if their product is a success. Suggesting improvements to their peers' designs and products. Knowing that improve means to make something better.	**Digital World** Analysing and evaluating wearable technology. Using feedback from peers to improve design. **Cooking and Nutrition** Describing the texture and flavour of ingredients. Describing the benefits of seasonal fruits and vegetables and the impact on the environment. **Structures** Explaining why they think certain aspects of a peer's design are effective or why	**Textiles** Testing and evaluating an end product against the original design criteria. Deciding how many of the criteria should be met for the product to be considered successful. Suggesting modifications for improvement. Articulating the advantages and disadvantages of different fastening types. **Electrical Systems** L earning to give and accept constructive	**Mechanisms** Reflecting on the usability, aesthetics, innovation and sustainability of products and discussing how design choices impact these aspects. Assessing their designs against a more complex set of design criteria that includes functionality, aesthetics, user experience, sustainability and cost. Considering alternative materials, tools or techniques that could enhance the product. Providing feedback that is helpful, specific, and encouraging. Incorporating feedback from peers or users improves their product further, explaining the	**Electrical Systems** Testing own and others finished games, identifying what went well and making suggestions for improvement. Gathering images and information about existing children's toys. Analysing a selection of existing children's toys. **Textiles** Reflecting on the usability, aesthetics, innovation and sustainability of

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		Reviewing the success of a product by testing it with its intended audience. Discussing existing products, saying what they like about them. Comparing two products and discussing which is better for a specific purpose. Discussing how their products could be improved based on personal preferences. Comparing their finished products with their original designs. Saying what they like about their peers' designs and products. Accepting feedback and understanding it is meant to improve their work. Testing wheel and axle mechanisms, identifying what stops the wheels from turning and recognising that a wheel needs an axle in order to move. **Structures** Discussing existing products, saying what they like about them. Comparing two products and discuss which is better for a specific purpose. Saying what they like about their peers' designs and products. Accepting feedback and understanding it is meant to improve their work Evaluating a windmill according to the design	Knowing that their suggestions can improve someone else's work. Evaluating own designs against design criteria. Using peer feedback to modify a final design. Discussing whether they were able to use the tools and techniques effectively. Comparing a range of products and explaining why some better meet different design criteria than others. Evaluating their ideas and creations against simple design criteria. **Cooking and Nutrition** Describing appearance, smell and taste. Tasting and evaluating different food combinations. Describing the information that should be included on a label. **Textiles** Troubleshooting scenarios posed by teacher. Evaluating the quality of the stitching on others' work. Discussing as a class, the success of their stitching against the success criteria.	they suggested specific improvements. Explaining why they think certain aspects of a peer's design are effective or why they suggested specific improvements. Explaining why they think certain aspects of a peer's design are effective or why they suggested specific improvements. Evaluating own work and the work of others based on the aesthetic of the finished product and in comparison to the original design. Suggesting points for modification of the individual designs.	criticism on own work and the work of others. Testing the success of initial ideas against the design criteria and justifying opinions. Revisiting the requirements of the client to review developing design ideas and check that they fulfil their needs **Digital World** Investigating and analysing a range of timers by identifying and comparing their advantages and disadvantages. Evaluating my Micro:bit program against points on my design criteria and amending them to include any changes I made. Documenting and evaluating my project. Understanding what a logo is and why they are important in the world of design and business. Testing my program for bugs (errors in the code). Finding and fixing the bugs (debug) in my code. Using an exhibition to gather feedback. Gathering feedback from the user to make suggested improvements to a product.	changes they made and the impact they had. **Cooking and Nutrition** Explaining the farm to fork process. Analysing nutritional content. **Electrical Systems** Reflecting on the usability, aesthetics, innovation and sustainability of products and discussing how design choices impact these aspects. Assessing their designs against a more complex set of design criteria that includes functionality, aesthetics, user experience, sustainability and cost. Considering alternative materials, tools or techniques that could enhance the product. Providing feedback that is helpful, specific, and encouraging. Incorporating feedback from peers or users to improve their product further, explaining the changes they made and the impact they had. Carry out a product analysis to look at the purpose of a product along with its strengths and weaknesses. Determining which parts of a product affect its function and which parts affect its form. Analysing whether changes in configuration positively or negatively affect an existing product.	products and discussing how design choices impact these aspects. Reflecting on their work continually throughout the design, make and evaluate process.

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		criteria, testing whether the structure is strong and stable and altering it if it isn't. Suggest points for improvements. **Textiles** Saying what they like about their peers' designs and products. Accepting feedback and understanding it is meant to improve their work. Reflecting on a finished product, explaining likes and dislikes.	Identifying aspects of their peers' work that they particularly like and why.			Peer evaluating a set of instructions to build a product.	

Our Intention is to ensure that the children at our school:

- **Enjoy it**
- **Believe they can do it**
- **See the purpose in it**
- **Do it confidently**
- **Can do it now, tomorrow and forever**

Every subject, every cross- curricular theme, every aspect of our work is an 'it'!
Every child has at least one 'it' – we need to find it!