



Curriculum Progression Map: Feb 2023

Subject: Design and Technology

Design and technology is an inspiring, rigorous and practical subject. Using creativity and imagination, pupils explore, design and make products that solve real and relevant problems within a variety of contexts, considering their own and others' needs, wants and values. They acquire a broad range of subject knowledge and draw on disciplines such as mathematics, science, engineering, computing and art. Children are taught to use tools correctly and safely to combine their designing and making skills alongside their knowledge and understanding in order to construct products that satisfy needs and challenges. They will also learn to apply the principles of a healthy diet and prepare and cook a variety of dishes. As the children make their way through the school, they will develop their understanding to explore, Investigate and analyse products, explore complex structures and use mechanical systems and electrical systems in products.

Key Area	Year R	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
-----------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------



Structures

Skills

Design	<u>Junk Modelling</u>	<u>Constructing a Windmill</u>	<u>Baby Bear's Chair</u>	<u>Constructing a Castle</u>	<u>Pavilions</u>	<u>Bridges</u>	<u>Playgrounds</u>
	<p>Making verbal plans and material choices.</p> <p>Developing a junk model.</p>	<p>Learning the importance of a clear design criteria.</p> <p>Including individual preferences and requirements in a design.</p>	<p>Generating and communicating ideas using sketching and modelling</p> <p>Learning about different types of structures, found in the natural world and in everyday objects</p>	<p>Designing a castle with key features to appeal to a specific person / purpose.</p> <p>Drawing and labelling a castle design using 2D shapes, labelling: - the 3D shapes that will create the features - materials needed and colours.</p> <p>Designing and/or decorating a castle tower on CAD software.</p>	<p>Designing a stable pavilion structure that is aesthetically pleasing and selecting materials to create a desired effect.</p> <p>Building frame structures designed to support weight.</p>	<p>Designing a stable structure that is able to support weight.</p> <p>Creating a frame structure with a focus on triangulation.</p>	<p>Designing a playground featuring a variety of different structures, giving careful consideration to how the structures will be used, considering effective and ineffective designs.</p>



Make	<p>Improving fine motor/scissor skills with a variety of materials.</p> <p>Joining materials in a variety of ways (temporary and permanent).</p> <p>Joining different materials together.</p> <p>Describing their junk model, and how they intend to put it together.</p>	<p>Making stable structures from card, tape and glue</p> <p>Learning how to turn 2D nets into 3D structures.</p> <p>Following instructions to cut and assemble the supporting structure of a windmill.</p> <p>Making functioning turbines and axles which are assembled into a main supporting structure.</p>	<p>Making a structure according to design criteria.</p> <p>Creating joints and structures from paper/card and tape.</p> <p>Building a strong and stiff structure by folding paper.</p>	<p>Constructing a range of 3D geometric shapes using nets.</p> <p>Creating special features for individual designs.</p> <p>Making facades from a range of recycled materials.</p>	<p>Creating a range of different shaped frame structures.</p> <p>Making a variety of free-standing frame structures of different shapes and sizes.</p> <p>Selecting appropriate materials to build a strong structure and cladding.</p> <p>Reinforcing corners to strengthen a structure.</p> <p>Creating a design in accordance with a plan.</p> <p>Learning to create different textural effects with materials</p>	<p>Making a range of different shaped beam bridges.</p> <p>Using triangles to create truss bridges that span a given distance and support a load.</p> <p>Building a wooden bridge structure.</p> <p>Independently measuring and marking wood accurately.</p> <p>Selecting appropriate tools and equipment for particular tasks.</p> <p>Using the correct techniques to saws safely.</p> <p>Identifying where a structure needs reinforcement and using card corners</p>	<p>Building a range of play apparatus structures drawing upon new and prior knowledge of structures.</p> <p>Measuring, marking and cutting wood to create a range of structures.</p> <p>Using a range of materials to reinforce and add decoration to structures.</p>
-------------	---	---	--	---	---	---	---



						<p>for support.</p> <p>Explaining why selecting appropriating materials is an important part of the design process.</p> <p>Understanding basic wood functional properties.</p>	
Evaluate	<p>Giving a verbal evaluation of their own and others' junk models with adult support.</p> <p>Checking to see if their model matches their plan.</p> <p>Considering what they would do differently if they were to do it again.</p> <p>Describing their favourite and least</p>	<p>Evaluating a windmill according to the design criteria, testing whether the structure is strong and stable and altering it if it isn't.</p> <p>Suggest points for improvements.</p>	<p>Exploring the features of structures.</p> <p>Comparing the stability of different shapes.</p> <p>Testing the strength of own structures.</p> <p>Identifying the weakest part of a structure.</p> <p>Evaluating the strength, stiffness</p>	<p>Evaluating own work and the work of others based on the aesthetic of the finished product and in comparison to the original design.</p> <p>Suggesting points for modification of the individual designs.</p>	<p>Evaluating structures made by the class.</p> <p>Describing what characteristics of a design and construction made it the most effective.</p> <p>Considering effective and ineffective designs.</p>	<p>Adapting and improving own bridge structure by identifying points of weakness and reinforcing them as necessary.</p> <p>Suggesting points for improvements for own bridges and those designed by others.</p>	<p>Improving a design plan based on peer evaluation.</p> <p>Testing and adapting a design to improve it as it is developed.</p> <p>Identifying what makes a successful structure.</p>



	favourite part of their model.		and stability of own structure.				
Knowledge							
Technical	<p>To know there are a range to different materials that can be used to make a model and that they are all slightly different.</p> <p>Making simple suggestions to fix their junk model.</p>	<p>To understand that the shape of materials can be changed to improve the strength and stiffness of structures.</p> <p>To understand that cylinders are a strong type of structure (e.g. the main shape used for windmills and lighthouses).</p> <p>To understand that axles are used in structures and mechanisms to make parts turn in a circle.</p> <p>To begin to understand that different structures</p>	<p>To know that shapes and structures with wide, flat bases or legs are the most stable.</p> <p>To understand that the shape of a structure affects its strength.</p> <p>To know that materials can be manipulated to improve strength and stiffness.</p> <p>To know that a structure is something which has been formed or made from parts.</p> <p>To know that a 'stable' structure is one which is</p>	<p>To understand that wide and flat based objects are more stable.</p> <p>To understand the importance of strength and stiffness in structures.</p> <p>To know the following features of a castle: flags, towers, battlements, turrets, curtain walls, moat, drawbridge and gatehouse - and their purpose.</p> <p>To know that a façade is the front of a structure.</p>	<p>To understand what a frame structure is.</p> <p>To know that a 'free-standing' structure is one which can stand on its own.</p> <p>To know that a pavilion is a decorative building or structure for leisure activities.</p> <p>To know that cladding can be applied to structures for different effects.</p> <p>To know that aesthetics are how a product looks.</p>	<p>To understand some different ways to reinforce structures.</p> <p>To understand how triangles can be used to reinforce bridges.</p> <p>To know that properties are words that describe the form and function of materials.</p> <p>To understand why material selection is important based on properties.</p> <p>To understand the material (functional and aesthetic) properties of wood.</p>	<p>To know that structures can be strengthened by manipulating materials and shapes.</p> <p>To understand what a 'footprint plan' is.</p> <p>To understand that in the real world, design can impact users in positive and negative ways.</p> <p>To know that a prototype is a cheap model to test a design idea.</p>



		<p>are used for different purposes.</p> <p>To know that a structure is something that has been made and put together.</p>	<p>firmly fixed and unlikely to change or move.</p> <p>To know that a 'strong' structure is one which does not break easily.</p> <p>To know that a 'stiff' structure or material is one which does not bend easily.</p>	<p>To understand that a castle needed to be strong and stable to withstand enemy attack.</p> <p>To know that a paper net is a flat 2D shape that can become a 3D shape once assembled.</p> <p>To know that a design specification is a list of success criteria for a product.</p>	<p>To know that a product's function means its purpose.</p>		
--	--	---	---	--	---	--	--

Mechanisms

Skills

Design		<p>Making a moving Storybook</p> <p>Explaining how to adapt mechanisms, using bridges or</p>	<p>Wheels and Axles</p> <p>Designing a vehicle that includes wheels,</p>	<p>Pneumatic Toys</p> <p>Designing a toy which uses a pneumatic system.</p>	<p>Making a Slingshot Car</p> <p>Designing a shape</p>	<p>Pop-up Book</p> <p>Designing a pop-up book which uses a mixture of structures and</p>	<p>Automata toys</p> <p>Experimenting with a range of cams, creating a design for an</p>
---------------	--	---	---	--	---	---	---



		<p>guides to control the movement.</p> <p>Designing a moving story book for a given audience.</p>	<p>axles and axle holders, that when combined, will allow the wheels to move.</p> <p>Creating clearly labelled drawings that illustrate movement.</p>	<p>Developing design criteria from a design brief.</p> <p>Generating ideas using thumbnail sketches and exploded diagrams.</p> <p>Learning that different types of drawings are used in design to explain ideas clearly.</p>	<p>that reduces air resistance.</p> <p>Drawing a net to create a structure from.</p> <p>Choosing shapes that increase or decrease speed as a result of air resistance.</p> <p>Personalising a design.</p>	<p>mechanisms.</p> <p>Naming each mechanism, input and output accurately.</p> <p>Storyboarding ideas for a book.</p>	<p>automata toy based on a choice of cam to create a desired movement.</p> <p>Understanding how linkages change the direction of a force.</p> <p>Making things move at the same time.</p> <p>Understanding and drawing cross-sectional diagrams to show the inner-workings of my design.</p>
<p>Make</p>		<p>Following a design to create moving models that use levers and sliders.</p>	<p>Adapting mechanisms, when:</p> <ul style="list-style-type: none"> • they do not work as they should. • to fit their vehicle design. 	<p>Creating a pneumatic system to create a desired motion.</p> <p>Building secure housing for a pneumatic system.</p>	<p>Measuring, marking, cutting and assembling with increasing accuracy.</p> <p>Making a model based on a chosen design.</p>	<p>Following a design brief to make a pop up book, neatly and with focus on accuracy.</p> <p>Making mechanisms</p>	<p>Measuring, marking and checking the accuracy of the jelutong and dowel pieces required.</p> <p>Measuring,</p>



			<ul style="list-style-type: none">• to improve how they work after• testing their vehicle.	<p>Using syringes and balloons to create different types of pneumatic systems to make a functional and appealing pneumatic toy.</p> <p>Selecting materials due to their functional and aesthetic characteristics.</p> <p>Manipulating materials to create different effects by cutting, creasing, folding and weaving.</p>		<p>and/or structures using sliders, pivots and folds to produce movement.</p> <p>Using layers and spacers to hide the workings of mechanical parts for an aesthetically pleasing result.</p>	<p>marking and cutting components accurately using a ruler and scissors.</p> <p>Assembling components accurately to make a stable frame.</p> <p>Understanding that for the frame to function effectively the components must be cut accurately and the joints of the frame secured at right angles.</p> <p>Selecting appropriate materials based on the materials being joined and the speed at</p>
--	--	--	---	--	--	--	---



							which the glue needs to dry/set.
Evaluate		<p>Testing a finished product, seeing whether it moves as planned and if not, explaining why and how it can be fixed.</p> <p>Reviewing the success of a product by testing it with its intended audience.</p>	<p>Testing wheel and axle mechanisms, identifying what stops the wheels from turning, and recognising that a wheel</p> <p>needs an axle in order to move.</p>	<p>Using the views of others to improve designs.</p> <p>Testing and modifying the outcome, suggesting improvements.</p> <p>Understanding the purpose of exploded-diagrams through the eyes of a designer and their client.</p>	<p>Evaluating the speed of a final product based on: the effect of shape on speed and the accuracy of workmanship on performance.</p>	<p>Evaluating the work of others and receiving feedback on own work.</p> <p>Suggesting points for improvement.</p>	<p>Evaluating the work of others and receiving feedback on own work.</p> <p>Applying points of improvement to their toys.</p> <p>Describing changes they would make/do if they were to do the project again.</p>
Knowledge							



Technical		<p>To know that a mechanism is the parts of an object that move together.</p> <p>To know that a slider mechanism moves an object from side to side.</p> <p>To know that a slider mechanism has a slider, slots , guides and an object.</p> <p>To know that bridges and guides are bits of card that purposefully restrict the movement of the slider.</p>	<p>To know that wheels need to be round to rotate and move.</p> <p>To understand that for a wheel to move it must be attached to a rotating axle.</p> <p>To know that an axle moves within an axle holder which is fixed to the vehicle or toy.</p> <p>To know that the frame of a vehicle (chassis) needs to be balanced.</p>	<p>To understand how pneumatic systems work.</p> <p>To understand that pneumatic systems can be used as part of a mechanism.</p> <p>To know that pneumatic systems operate by drawing in, releasing and compressing air.</p>	<p>To understand that all moving things have kinetic energy.</p> <p>To understand that kinetic energy is the energy that something (object/person) has by being in motion.</p> <p>To know that air resistance is the level of drag on an object as it is forced through the air.</p> <p>To understand that the shape of a moving object will affect how it moves due to air resistance.</p>	<p>To know that mechanisms control movement.</p> <p>To understand that mechanisms can be used to change one kind of motion into another.</p> <p>To understand how to use sliders, pivots and folds to create paper-based mechanisms.</p>	<p>To understand that the mechanism in an automata uses a system of cams, axles and followers.</p> <p>To understand that different shaped cams produce different outputs.</p>
------------------	--	---	--	--	---	--	---

Electrical Systems (KS2 only)

Skills



Design				<p>Electric Poster</p> <p>Carry out research based on a given topic (e.g. The Romans) to develop a range of initial ideas.</p> <p>Generate a final design for the electric poster with consideration to the client's needs and design criteria.</p> <p>Design an electric poster that fits the requirements of a given brief.</p> <p>Plan the positioning of the bulb (circuit component) and its purpose.</p>	<p>Torches</p> <p>Designing a torch, giving consideration to the target audience and creating both design and success criteria focusing on features of individual design ideas.</p>	<p>Doodlers</p> <p>Identifying factors that could be changed on existing products and explaining how these would alter the form and function of the product.</p> <p>Developing design criteria based on findings from investigating existing products.</p> <p>Developing design criteria that clarifies the target user.</p>	<p>Steady hand Game</p> <p>Designing a steady hand game - identifying and naming the components required.</p> <p>Drawing a design from three different perspectives.</p> <p>Generating ideas through sketching and discussion.</p> <p>Modelling ideas through prototypes.</p> <p>Understanding the purpose of products (toys), including what is meant by 'fit for purpose' and 'form over function'.</p>
---------------	--	--	--	---	--	---	--



<p>Make</p>				<p>Create a final design for the electric poster.</p> <p>Mount the poster onto corrugated card to improve its strength and allow it to withstand the weight of the circuit on the rear.</p> <p>Measure and mark materials out using a template or ruler.</p> <p>Fit an electrical component (bulb).</p> <p>Learn ways to give the final product a higher quality finish (e.g. framing to conceal a roughly cut edge).</p>	<p>Making a torch with a working electrical circuit and switch.</p> <p>Using appropriate equipment to cut and attach materials.</p> <p>Assembling a torch according to the design and success criteria.</p>	<p>Altering a product's form and function by tinkering with its configuration.</p> <p>Making a functional series circuit, incorporating a motor.</p> <p>Constructing a product with consideration for the design criteria.</p> <p>Breaking down the construction process into steps so that others can make the product.</p>	<p>Constructing a stable base for a game.</p> <p>Accurately cutting, folding and assembling a net.</p> <p>Decorating the base of the game to a high-quality finish.</p> <p>Making and testing a circuit.</p> <p>Incorporating a circuit into a base.</p>
<p>Evaluate</p>				<p>Learning to give and accept constructive criticism on own work and the work of others.</p>	<p>Evaluating electrical products.</p> <p>Testing and evaluating the</p>	<p>Carry out a product analysis to look at the purpose of a product along with</p>	<p>Testing own and others finished games, identifying what went well and making</p>



				<p>Testing the success of initial ideas against the design criteria and justifying opinions.</p> <p>Revisiting the requirements of the client to review developing design ideas and check that they fulfil their needs.</p>	<p>success of a final product.</p>	<p>its strengths and weaknesses.</p> <p>Determining which parts of a product affect its function and which parts affect its form.</p> <p>Analysing whether changes in configuration positively or negatively affect an existing product.</p> <p>Peer evaluating a set of instructions to build a product.</p>	<p>suggestions for improvement.</p> <p>Gathering images and information about existing children's toys.</p> <p>Analysing a selection of existing children's toys.</p>
Knowledge							



Technical				<p>To understand that an electrical system is a group of parts (components) that work together to transport electricity around a circuit.</p> <p>To understand common features of an electric product (switch, battery or plug, dials, buttons etc.).</p> <p>To list examples of common electric products (kettle, remote control etc.).</p> <p>To understand that an electric product uses an electrical system to work (function).</p> <p>To know the name and appearance of</p>	<p>To understand that electrical conductors are materials which electricity can pass through.</p> <p>To understand that electrical insulators are materials which electricity cannot pass through.</p> <p>To know that a battery contains stored electricity that can be used to power products.</p> <p>To know that an electrical circuit must be complete for electricity to flow.</p> <p>To know that a switch can be used to complete and break an electrical circuit.</p>	<p>To know that series circuits only have one direction for the electricity to flow.</p> <p>To know when there is a break in a series circuit, all components turn off.</p> <p>To know that an electric motor converts electrical energy into rotational movement, causing the motor's axle to spin.</p> <p>To know a motorised product is one which uses a motor to function.</p>	<p>To know that batteries contain acid, which can be dangerous if they leak.</p> <p>To know the names of the components in a basic series circuit, including a buzzer.</p> <p>To know that 'form' means the shape and appearance of an object.</p> <p>To know the difference between 'form' and 'function'.</p> <p>To understand that 'fit for purpose' means that a product works how it should and is easy to use.</p>
------------------	--	--	--	--	--	--	--



				a bulb, battery, battery holder and crocodile wire to build simple circuits.			
--	--	--	--	--	--	--	--

Food (Any ingredients or recipes should follow or be adapted to the school ethos)

Skills



Design	<u>Soup</u> Designing a soup recipe as a class. Designing soup packaging.	<u>Fruit and Vegetables</u> Designing smoothie carton packaging by-hand or on ICT software.	<u>A Balanced Diet</u> Designing a healthy wrap based on a food combination which work well together.	<u>Eating Seasonally</u> Creating a healthy and nutritious recipe for a savoury tart using seasonal ingredients, considering the taste, texture, smell and appearance of the dish.	<u>Adapting a recipe</u> Designing a biscuit within a given budget, drawing upon previous taste testing judgements.	<u>What Could be Healthier?</u> Adapting a traditional recipe, understanding that the nutritional value of a recipe alters if you remove, substitute or add additional ingredients. Writing an amended method for a recipe to incorporate the relevant changes to ingredients. Designing appealing packaging to reflect a recipe	<u>Come Dine With Me</u> Writing a recipe, explaining the key steps, method and ingredients. Including facts and drawings from research undertaken.
Make	Chopping plasticine safely. Chopping vegetables with support.	Chopping fruit and vegetables safely to make a smoothie.	Slicing food safely using the bridge or claw grip. Constructing a wrap that meets a design brief.	Knowing how to prepare themselves and a work space to cook safely in, learning the basic rules to avoid food contamination.	Following a baking recipe, from start to finish, including the preparation of ingredients.	Cutting and preparing vegetables safely. Using equipment safely, including knives, hot pans and hobs.	Following a recipe, including using the correct quantities of each ingredient. Adapting a recipe based on research.



				Following the instructions within a recipe.	Cooking safely, following basic hygiene rules. Adapting a recipe to improve it or change it to meet new criteria (e.g. from savoury to sweet).	Knowing how to avoid cross-contamination. Following a step by step method carefully to make a recipe.	Working to a given timescale. Working safely and hygienically with independence.
Evaluate	Tasting the soup and giving opinions. Describing some of the following when tasting food: look, feel, smell and taste. Choosing their favourite packaging design and explaining why.	Tasting and evaluating different food combinations. Describing appearance, smell and taste. Suggesting information to be included on packaging.	Describing the taste, texture and smell of fruit and vegetables. Taste testing food combinations and final products. Describing the information that should be included on a label. Evaluating which grip was most effective.	Establishing and using design criteria to help test and review dishes. Describing the benefits of seasonal fruits and vegetables and the impact on the environment. Suggesting points for improvement when making a seasonal tart.	Evaluating a recipe, considering: taste, smell, texture and appearance. Describing the impact of the budget on the selection of ingredients. Evaluating and comparing a range of food products. Suggesting modifications to a recipe (e.g. This biscuit has too many raisins, and it is falling apart,	Identifying the nutritional differences between different products and recipes. Identifying and describing healthy benefits of food groups.	Evaluating a recipe, considering: taste, smell, texture and origin of the food group. Taste testing and scoring final products. Suggesting and writing up points of improvements when scoring others' dishes, and when evaluating their own throughout the planning, preparation and cooking



					so next time I will use less raisins).		process. Evaluating health and safety in production to minimise cross contamination.
--	--	--	--	--	--	--	---

Knowledge

Cooking and nutrition	<p>To know that soup is ingredients (usually vegetables and liquid) blended together.</p> <p>To know that vegetables are grown.</p> <p>To recognise and name some common vegetables.</p> <p>To know that different vegetables taste different.</p> <p>To know that eating vegetables is good for us.</p>	<p>Understanding the difference between fruits and vegetables.</p> <p>To understand that some foods typically known as vegetables are actually fruits (e.g. cucumber).</p> <p>To know that a blender is a machine which mixes ingredients together into a smooth liquid.</p> <p>To know that a fruit has seeds and a vegetable does not.</p>	<p>To know that 'diet' means the food and drink that a person or animal usually eats.</p> <ul style="list-style-type: none"> To understand what makes a balanced diet. To know where to find the nutritional information on packaging. To know that the five main food groups are: Carbohydrates, fruits and vegetables, protein, dairy and foods high in fat and sugar. 	<p>To know that not all fruits and vegetables can be grown in the UK.</p> <p>To know that climate affects food growth.</p> <p>To know that vegetables and fruit grow in certain seasons.</p> <p>To know that cooking instructions are known as a 'recipe'.</p> <p>To know that imported food is food which has</p>	<p>To know that the amount of an ingredient in a recipe is known as the 'quantity.'</p> <p>To know that it is important to use oven gloves when removing hot food from an oven.</p> <p>To know the following cooking techniques: sieving, creaming, rubbing method, cooling.</p> <p>To understand the importance of budgeting while planning</p>	<p>To understand where meat comes from - learning that beef is from cattle and how beef is reared and processed, including key welfare issues.</p> <p>To know that I can adapt a recipe to make it healthier by substituting ingredients.</p> <p>To know that I can use a nutritional calculator to see how healthy a food option is.</p> <p>To understand that 'cross-</p>	<p>To know that 'flavour' is how a food or drink tastes.</p> <p>To know that many countries have 'national dishes' which are recipes associated with that country.</p> <p>To know that 'processed food' means food that has been put through multiple changes in a factory.</p> <p>To understand that it is important to wash fruit and</p>
------------------------------	--	--	---	--	--	---	---



	<p>To discuss why different packages might be used for different foods.</p>	<p>To know that fruits grow on trees or vines.</p> <p>To know that vegetables can grow either above or below ground.</p> <p>To know that vegetables can come from different parts of the plant (e.g. roots: potatoes, leaves: lettuce, fruit: cucumber).</p>	<p>To understand that I should eat a range of different foods from each food group, and roughly how much of each food group.</p> <p>To know that nutrients are substances in food that all living things need to make energy, grow and develop.</p> <p>To know that 'ingredients' means the items in a mixture or recipe.</p> <p>To know that I should only have a maximum of five teaspoons of sugar a day to stay healthy.</p>	<p>been brought into the country.</p> <p>To know that exported food is food which has been sent to another country.</p> <p>To understand that imported foods travel from far away and this can negatively impact the environment.</p> <p>To know that each fruit and vegetable gives us nutritional benefits because they contain vitamins, minerals and fibre.</p> <p>To understand that vitamins, minerals and fibre are important for energy, growth and maintaining health.</p>	<p>ingredients for biscuits</p>	<p>contamination' means bacteria and germs have been passed onto ready-to-eat foods and it happens when these foods mix with raw meat or unclean objects.</p>	<p>vegetables before eating to remove any dirt and insecticides.</p> <p>To understand what happens to a certain food before it appears on the supermarket shelf (Farm to Fork).</p>
--	---	--	--	---	---------------------------------	---	---



			To know that many food and drinks we do not expect to contain sugar do; we call these 'hidden sugars'	To know safety rules for using, storing and cleaning a knife safely. To know that similar coloured fruits and vegetables often have similar nutritional benefits.			
--	--	--	---	--	--	--	--

Textiles

Skills

Design	<u>Bookmarks</u>	<u>Puppets</u>	<u>Pouches</u>	<u>Cushions</u>	<u>Fastenings</u>	<u>Stuffed Toys</u>	<u>Waistcoats</u>
	Discussing what a good design needs. Designing a simple pattern with paper. Designing a bookmark.	Using a template to create a design for a puppet.	Designing a pouch.	Designing and making a template from an existing cushion and applying individual design criteria.	Writing design criteria for a product, articulating decisions made. Designing a personalised book sleeve.	Designing a stuffed toy, considering the main component shapes required and creating an appropriate template. Considering the proportions of individual components.	Designing a waistcoat in accordance to a specification linked to set of design criteria. Annotating designs, to explain their decisions.



	<p>Choosing from available materials.</p>						
<p>Make</p>	<p>Developing fine motor/cutting skills with scissors.</p> <p>Exploring fine motor/threading and weaving (under, over technique) with a variety of materials.</p> <p>Using a prepared needle and wool to practise threading.</p>	<p>Cutting fabric neatly with scissors.</p> <p>Using joining methods to decorate a puppet.</p> <p>Sequencing steps for construction.</p>	<p>Selecting and cutting fabrics for sewing.</p> <p>Decorating a pouch using fabric glue or running stitch.</p> <p>Threading a needle.</p> <p>Sewing running stitch, with evenly spaced, neat, even stitches to join fabric.</p> <p>Neatly pinning and cutting fabric using a template.</p>	<p>Following design criteria to create a cushion</p> <p>Selecting and cutting fabrics with ease using fabric scissors.</p> <p>Threading needles with greater independence.</p> <p>Tying knots with greater independence.</p> <p>Sewing cross stitch to join fabric.</p> <p>Decorating fabric using appliqué.</p> <p>Completing design ideas with stuffing and sewing the edges</p>	<p>Making and testing a paper template with accuracy and in keeping with the design criteria.</p> <p>Measuring, marking and cutting fabric using a paper template.</p> <p>Selecting a stitch style to join fabric.</p> <p>Working neatly by sewing small, straight stitches.</p> <p>Incorporating a fastening to a design.</p>	<p>Creating a 3D stuffed toy from a 2D design.</p> <p>Measuring, marking and cutting fabric accurately and independently .</p> <p>Creating strong and secure blanket stitches when joining fabric.</p> <p>Threading needles independently.</p> <p>Using appliqué to attach pieces of fabric decoration.</p> <p>Sewing blanket stitch to join fabric.</p> <p>Applying blanket stitch so the</p>	<p>Using a template when cutting fabric to ensure they achieve the correct shape.</p> <p>Using pins effectively to secure a template to fabric without creases or bulges.</p> <p>Marking and cutting fabric accurately, in accordance with their design.</p> <p>Sewing a strong running stitch, making small, neat stitches and following the edge.</p> <p>Tying strong knots.</p> <p>Decorating a waistcoat,</p>



						spaces between the stitches are even and regular.	attaching features (such as appliqué) using thread. Finishing the waistcoat with a secure fastening (such as buttons). Learning different decorative stitches. Sewing accurately with evenly spaced, neat stitches.
Evaluate	Reflecting on a finished product and comparing to their design.	Reflecting on a finished product, explaining likes and dislikes	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.	Evaluating an end product and thinking of other ways in which to create similar items.	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.	Testing and evaluating an end product and giving point for further improvements.	Reflecting on their work continually throughout the design, make and evaluate process.



			Identifying aspects of their peers' work that they particularly like and why.		Suggesting modifications for improvement. Articulating the advantages and disadvantages of different fastening types.		
--	--	--	---	--	--	--	--

Knowledge

	<p>To know that a design is a way of planning our idea before we start.</p> <p>To know that threading is putting one material through an object.</p>	<p>To know that 'joining technique' means connecting two pieces of material together.</p> <p>To know that there are various temporary methods of joining fabric by using staples, glue or pins.</p> <p>To understand that different techniques for joining materials can be used for different purposes.</p> <p>To understand that a template (or</p>	<p>To know that sewing is a method of joining fabric.</p> <p>To know that different stitches can be used when sewing.</p> <p>To understand the importance of tying a knot after sewing the final stitch.</p> <p>To know that a thimble can be used to protect my fingers when sewing.</p>	<p>Establishing and points for improvement when making a seasonal recipe</p>	<p>To know that a fastening is something which holds two pieces of material together for example a zipper, toggle, button, press stud and velcro.</p> <p>To know that different fastening types are useful for different purposes.</p> <p>To know that creating a mock-up (prototype) of their design is useful for checking</p>	<p>To know that blanket stitch is useful to reinforce the edges of a fabric material or join two pieces of fabric.</p> <p>To understand that it is easier to finish simpler designs to a high standard.</p> <p>To know that soft toys are often made by creating appendages separately</p>	<p>To understand that it is important to design clothing with the client/target customer in mind.</p> <p>To know that using a template (or clothing pattern) helps to accurately mark out a design on fabric.</p> <p>To understand the importance of consistently sized stitches.</p>
--	--	---	---	--	--	--	---



		<p>fabric pattern) is used to cut out the same shape multiple times.</p> <p>To know that drawing a design idea is useful to see how an idea will look.</p>			<p>ideas and proportions.</p>	<p>and then attaching them to the main body.</p> <p>To know that small, neat stitches which are pulled taut are important to ensure that the soft toy is strong and holds the stuffing securely.</p>	
<p>Key Vocabulary</p>	<p><i>See separate vocabulary document.</i></p>						