

# Progression of Knowledge and Skill in Design and Technology



Curriculum Plan			
	Autumn	Spring	Summer
EYFS	During the Early Years Foundation Stage, the essential building blocks of children's design and technology capability are established. There are many opportunities for carrying out D&T-related activities in all areas of learning in the EYFS. Specifically, 'Designing and Making' is identified as a strand within Knowledge and Understanding of the World. By the end of the EYFS, most children should be able to: •Construct with a purpose in mind, using a variety of resources •Use simple tools and techniques competently and appropriately •Build and construct with a wide range of objects, selecting appropriate resources and adapting their work when necessary •Select the tools and techniques they need to shape, assemble and join materials they are using		
Year 1	Cooking and Nutrition (Autumn 1) Fruit and Vegetables	Textiles Puppets	Structures Constructing a Windmill
Year 2	Textiles Pouches	Cooking and Nutrition (Spring 1) A Balanced Diet	Structures Baby Bear's Chair
Year 3	Textiles Cushions	Structures Constructing a Castle	Cooking and Nutrition (Summer 1) Eating Seasonally
Year 4	Cooking and Nutrition (Autumn 2) Adapting a Recipe	Textiles Fastenings	Structures Pavilions
Year 5	Textiles Stuffed Toys	Cooking and Nutrition (Spring 2) What could be healthier?	Structures Bridges
Year 6	Textiles Waistcoats	Structures Playgrounds	Cooking and Nutrition (Summer 2) Come Dine With Me



Exploring and Developing Ideas	National Curriculum	Through a variety of creative and practical activities, pupils should be taught the knowledge, understanding and skills needed to engage in an iterative process of designing and making. They should work in a range of relevant contexts. They acquire a broad range of subject knowledge and draw on disciplines such as mathematics, science, engineering, computing and art. Pupils learn how to take risks, becoming resourceful, innovative, enterprising and capable citizens. Through the evaluation of past and present design and technology, they develop a critical understanding of its impact on daily life and the wider world.	
	Knowledge and Skills to be covered in all projects.		
	Knowledge	<p><b>Key Stage 1</b></p> <ul style="list-style-type: none"> <li>• <b>Structures:</b> Build structures such as windmills and chairs, exploring how they can be made stronger, stiffer and more stable. Recognise areas of weakness through trial and error.</li> <li>• <b>Textiles:</b> Explore different methods of joining fabrics and experiment to determine the pros and cons of each technique.</li> <li>• <b>Cooking and Nutrition:</b> Learn about the basic rules of a healthy and varied diet to create dishes. Understand where food comes from, for example plants and animals.</li> </ul>	<p><b>Key Stage 2</b></p> <ul style="list-style-type: none"> <li>• <b>Structures:</b> Continue to develop KS1 exploration skills, through more complex builds such as pavilion and bridge designs. Understand material selection and learn methods to reinforce structures.</li> <li>• <b>Textiles:</b> Understand that fabric can be layered for effect, recognising the appearance and technique for different stitch and fastening types, including their: Strength, Appropriate use, Design.</li> <li>• <b>Cooking and Nutrition:</b> Understand and apply the principles of a healthy and varied diet to prepare and cook a variety of dishes using a range of cooking techniques and methods. Understand what is meant by seasonal foods. Know where and how ingredients are sourced.</li> </ul>
Skills	<p><b>Key Stage 1</b></p> <ul style="list-style-type: none"> <li>• Use hand tools and kitchen equipment safely and appropriately and learn to follow hygiene procedures</li> <li>• Use a range of materials and components, including textiles and food ingredients</li> <li>• With help, measure and mark out, cut, shape and score materials with some accuracy</li> <li>• Assemble, join and combine materials, components or ingredients</li> <li>• Demonstrate how to cut, shape and join fabric to make a simple product; manipulate fabrics in simple ways to create the desired effect</li> <li>• Use a basic running stitch</li> <li>• Cut, peel and grate ingredients, including measuring and weighing ingredients using measuring cups</li> <li>• Begin to use simple finishing techniques to improve the appearance of their product, such as adding simple decorations</li> </ul>	<p><b>Key Stage 2</b></p> <ul style="list-style-type: none"> <li>• Use a range of tools and equipment safely, appropriately and accurately and learn to follow hygiene procedures</li> <li>• Use a wider range of materials and components, including construction materials and kits, textiles</li> <li>• Measure and mark out to the nearest cm and millimetre</li> <li>• Cut, shape and score materials with some degree of accuracy</li> <li>• Assemble, join and combine material and components with some degree of accuracy</li> <li>• Demonstrate how to measure, cut, shape and join fabric with some accuracy to make a simple product</li> <li>• Join textiles with an appropriate sewing technique</li> <li>• Begin to select and use different and appropriate finishing techniques to improve the appearance of a product</li> </ul>	



# Progression of Knowledge and Skill in Design and Technology

Cooking and Nutrition		KS1 Art and Design National Curriculum					
		As part of their work with food, pupils should be taught how to cook and apply the principles of nutrition and healthy eating. Instilling a love of cooking in pupils will also open a door to one of the great expressions of human creativity. Learning how to cook is a crucial life skill that enables pupils to feed themselves and others affordably and well, now and in later life.					
National Curriculum	Skills and knowledge to be covered in projects:						
	Year 1 – Cooking Fruit and Vegetables	Year 2 - Cooking A Balanced Diet	Year 3 - Cooking Eating Seasonally	Year 4 - Cooking Adapting a recipe	Year 5 - Cooking What could be healthier?	Year 6 - Cooking Come Dine With Me	
Projects							
Knowledge	<p><b>Year 1</b></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 fruits grow on trees or vines</p>	<p><b>Year 2</b></p> <p>To know that ‘diet’ means the food and drink that a person or animal usually eats</p> <p>To understand what makes a balanced diet</p> <p>To know where to find the nutritional information on packaging</p> <p>To know that the five main food groups are: Carbohydrates, fruits and vegetables, protein, dairy and foods high in fat and sugar</p> <p>To understand that I should eat a range of different</p>	<p><b>Year 3</b></p> <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 been brought into the country</p> <p>To know that exported food</p>	<p><b>Year 4</b></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 ingredients for biscuits</p>	<p><b>Year 5</b></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-contamination’ means that bacteria and germs have been passed onto ready-to-</p>	<p><b>Year 6</b></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 vegetables before eating to remove any dirt and insecticides</p> <p>To understand what happens to a certain</p>	

# Progression of Knowledge and Skill in Design and Technology



	<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>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>To know that many food and drinks we do not expect to contain sugar do; we call these 'hidden sugars'</p>	<p>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>To know safety rules for using, storing and cleaning a knife safely</p> <p>To know that similar coloured fruits and vegetables often have similar nutritional benefits</p>		<p>eat foods and it happens when these foods mix with raw meat or unclean object</p>	<p>food before it appears on the supermarket shelf (Farm to Fork)</p>
<b>Skills</b>	<p><b>Year 1</b></p> <p>Designing smoothie carton packaging by-hand or on ICT software (<i>Design</i>)</p>	<p><b>Year 2</b></p> <p>Designing a healthy wrap based on a food combination which work well together (<i>Design</i>)</p>	<p><b>Year 3</b></p> <p>Creating a healthy and nutritious recipe for a savoury tart using seasonal</p>	<p><b>Year 4</b></p> <p>Designing a biscuit within a given budget, drawing upon previous taste testing (<i>Design</i>)</p>	<p><b>Year 5</b></p> <p>Adapting a traditional recipe, understanding that the nutritional value of a recipe alters if you remove,</p>	<p><b>Year 6</b></p> <p>Writing a recipe, explaining the key steps, method and ingredients including facts and drawings</p>



# Progression of Knowledge and Skill in Design and Technology

	<p>Chopping fruit and vegetables safely to make a smoothie (<i>Make</i>)</p> <p>Identifying if a food is a fruit or a vegetable (<i>Make</i>)</p> <p>Learning where and how fruits and vegetables grow (<i>Make</i>)</p> <p>Tasting and evaluating different food combinations (<i>Evaluate</i>)</p> <p>Describing appearance, smell and taste (<i>Evaluate</i>)</p> <p>Suggesting information to be included on packaging (<i>Evaluate</i>)</p>	<p>Slicing food safely using the bridge or claw grip (<i>Make</i>)</p> <p>Constructing a wrap that meets a design brief (<i>Make</i>)</p> <p>Describing the taste, texture and smell of fruit and vegetables (<i>Evaluate</i>)</p> <p>Taste testing food combinations and final products (<i>Evaluate</i>)</p> <p>Describing the information that should be included on a label (<i>Evaluate</i>)</p> <p>Evaluating which grip was most effective (<i>Evaluate</i>)</p>	<p>ingredients, considering the taste, texture, smell and appearance of the dish (<i>Design</i>)</p> <p>Knowing how to prepare themselves and a work space to cook safely in, learning the basic rules to avoid food contamination (<i>Make</i>)</p> <p>Following the instructions within a recipe (<i>Make</i>)</p> <p>Establishing and using design criteria to help test and review dishes (<i>Evaluate</i>)</p> <p>Describing the benefits of seasonal fruits and vegetables and the impact on the environment (<i>Evaluate</i>)</p> <p>Suggesting points for improvement when making a seasonal tart (<i>Evaluate</i>)</p>	<p>Following a baking recipe (<i>Make</i>)</p> <p>Cooking safely, following basic hygiene rules (<i>Make</i>)</p> <p>Adapting a recipe (<i>Make</i>)</p> <p>Evaluating a recipe, considering: taste, smell, texture and appearance (<i>Evaluate</i>)</p> <p>Describing the impact of the budget on the selection of ingredients (<i>Evaluate</i>)</p> <p>Evaluating and comparing a range of products (<i>Evaluate</i>)</p> <p>Suggesting modifications (<i>Evaluate</i>)</p>	<p>substitute or add additional ingredients (<i>Design</i>)</p> <p>Writing an amended method for a recipe to incorporate the relevant changes to ingredients (<i>Design</i>)</p> <p>Designing appealing packaging to reflect a recipe (<i>Design</i>)</p> <p>Cutting and preparing vegetables safely (<i>Make</i>)</p> <p>Using equipment safely, including knives, hot pans and hobs (<i>Make</i>)</p> <p>Knowing how to avoid cross-contamination (<i>Make</i>)</p> <p>Following a step by step method carefully to make a recipe (<i>Make</i>)</p> <p>Identifying the nutritional differences between different products and recipes (<i>Evaluate</i>)</p> <p>Identifying and describing healthy benefits of food</p>	<p>from research undertaken</p> <p>Following a recipe, including using the correct quantities of each ingredient</p> <p>Adapting a recipe based on research</p> <p>Working to a given timescale</p> <p>Working safely and hygienically with independence</p> <p>Evaluating a recipe, considering: taste, smell, texture and origin of the food group</p> <ul style="list-style-type: none"> <li>• Taste testing and scoring final products</li> <li>• Suggesting and writing up points of improvements in productions</li> <li>• Evaluating health and safety in production to minimise cross contamination</li> </ul>
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# Progression of Knowledge and Skill in Design and Technology

						groups (Evaluate)	
<b>Textiles</b>	<b>National Curriculum</b>	<b>KS1 Art and Design National Curriculum</b>					
	Children will use a full range of materials and components, including construction materials and kits, textiles, and cut a range of materials with precision and accuracy to create products. Pupils will shape and score materials with precision and accuracy. They will also assemble, join and combine materials and components with precision. Children will experiment with a greater variety of stitches, such as backstitch, whip stitch and blanket stitch.						
	<b>Project</b>	<b>Skills and knowledge to be covered in projects:</b>					
	<b>Project</b>	<b>Year 1 Textiles – Puppets</b>	<b>Year 2 Textiles - Pouches</b>	<b>Year 3 Textiles - Cushions</b>	<b>Year 4 Textiles - Fastenings</b>	<b>Year 5 Textiles - Stuffed Toys</b>	<b>Year 6 Textiles - Waistcoats</b>
	<b>Knowledge</b>	<p><b>Year 1</b></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 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><b>Year 2</b></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><b>Year 3</b></p> <p>To know that applique is a way of mending or decorating a textile by applying smaller pieces of fabric</p> <p>To know that when two edges of fabric have been joined together it is called a seam</p> <p>To know that it is important to leave space on the fabric for the seam</p> <p>To understand that some products are turned inside out after sewing so the stitching is hidden</p>	<p><b>Year 4</b></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 ideas and proportions</p>	<p><b>Year 5</b></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 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</p>	<p><b>Year 6</b></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>

# Progression of Knowledge and Skill in Design and Technology



					stuffing securely.	
Skills	<b>Year 1</b>	<b>Year 2</b>	<b>Year 3</b>	<b>Year 4</b>	<b>Year 5</b>	<b>Year 6</b>
	<p>Using a template to create a design for a puppet (Design)</p> <p>Cutting fabric neatly with scissors (Make)</p> <p>Using joining methods to decorate a puppet (Make)</p> <p>Sequencing steps for construction (Make)</p> <p>Reflecting on a finished product, explaining likes and dislikes (Evaluate)</p>	<p>Designing a pouch (Design)</p> <p>Selecting and cutting fabrics for sewing (Make)</p> <p>Decorating a pouch using fabric glue or running stitch (Make)</p> <p>Threading a needle (Make)</p> <p>Sewing running stitch, with evenly spaced, neat, even stitches to join fabric (Make)</p> <p>Neatly pinning and cutting fabric using a template (Make)</p> <p>Troubleshooting scenarios posed by teacher (Evaluate)</p> <p>Evaluating the quality of the stitching on others' work (Evaluate)</p> <p>Discussing as a class, the</p>	<p>Designing and making a template from an existing cushion and applying individual design criteria (Design)</p> <p>Following design criteria to create a cushion (Make)</p> <p>Selecting and cutting fabrics with ease using fabric scissors (Make)</p> <p>Threading needles with greater independence (Make)</p> <p>Tying knots with greater independence • Sewing cross stitch to join fabric (Make)</p> <p>Decorating fabric using appliqué (Make)</p> <p>Completing design ideas with stuffing and sewing the edges (Make)</p>	<p>Writing design criteria for a product, articulating decisions made (Design)</p> <p>Designing a personalised book sleeve (Design)</p> <p>Making and testing a paper template with accuracy and in keeping with the design criteria (Make)</p> <p>Measuring, marking and cutting fabric using a paper template (Make)</p> <p>Selecting a stitch style to join fabric, working neatly sewing small neat stitches (Make)</p> <p>Incorporating fastening to a design (Make)</p> <p>Testing and evaluating an end product against the original design criteria (Evaluate)</p> <p>Deciding how many of the</p>	<p>Designing a stuffed toy considering the main component shapes required and creating an appropriate template (Design)</p> <p>Considering the proportions of individual components (Design)</p> <p>Creating a 3D stuffed toy from a 2D design (Make)</p> <p>Measuring, marking and cutting fabric accurately and independently (Make)</p> <p>Creating strong and secure blanket stitches when joining fabric (Make)</p> <p>Threading needles independently (Make)</p>	<p>Designing a waistcoat in accordance to specification linked to set of design criteria to fit a specific theme (Design)</p> <p>Annotating designs (Design)</p> <p>Using a template when pinning panels onto fabric (Make)</p> <p>Marking and cutting fabric accurately, in accordance with a design (Make)</p> <p>Sewing a strong running stitch, making small, neat stitches and following the edge (Make)</p> <p>Tying strong knots (Make)</p>



# Progression of Knowledge and Skill in Design and Technology

		<p>success of their stitching against the success criteria (Evaluate)</p> <p>Identifying aspects of their peers' work that they particularly like and why (Evaluate)</p>	<p>Evaluating an end product and thinking of other ways in which to create similar items (Evaluate)</p>	<p>criteria should be met for the product to be considered successful (Evaluate)</p> <p>Suggesting modifications for improvement (Evaluate)</p> <p>Articulating the advantages and disadvantages of different fastening types (Evaluate)</p>	<p>Using applique to attach pieces of fabric decoration (Make)</p> <p>Sewing blanket stitch to join fabric (Make)</p> <p>Applying blanket stitch so the space between the stitches are even and regular (Make)</p> <p>Testing and evaluating an end product and giving point for further improvements (Evaluate)</p>	<p>Decorating a waistcoat -attaching objects using thread and adding a secure fastening (Make)</p> <p>Learning different decorative stitches (Make)</p> <p>Sewing accurately with even regularity of stitches(Make)</p>
Structures	National Curriculum	<p><b>KS1 Art and Design National Curriculum</b></p> <p>Children will independently and skillfully build high quality structures that are innovative, functional, appealing and stable.</p>				
	Projects	<p><b>Skills and knowledge to be covered in projects:</b></p>				
		<p><b>Year 1 Structures – Constructing a Windmill</b></p>	<p><b>Year 2 Structures – Baby Bear’s Chair</b></p>	<p><b>Year 3 Structures – Constructing a Castle</b></p>	<p><b>Year 4 Structures –Pavilions</b></p>	<p><b>Year 5 Structures – Bridges</b></p>
Knowledge	<p><b>Year 1</b></p> <p>To understand that the shape of materials can be changed to improve the strength and</p>	<p><b>Year 2</b></p> <p>To know that shapes and structures with wide, flat bases or legs are the most stable</p>	<p><b>Year 3</b></p> <p>To understand that wide and flat based objects are more stable</p>	<p><b>Year 4</b></p> <p>To understand what a frame structure is</p>	<p><b>Year 5</b></p> <p>To understand some different ways to reinforce structures</p> <p>To understand how</p>	<p><b>Year 6</b></p> <p>To know that structures can be strengthened by manipulating materials and shapes</p>



# Progression of Knowledge and Skill in Design and Technology



	<p>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 are used for different purposes</p> <p>To know that a structure is something that has been made and put together</p> <p>To know that a client is the person I am designing for</p> <p>To know that design criteria is a list of points to ensure the product meets the clients needs and wants</p> <p>To know that a windmill harnesses the power of wind for a purpose like grinding grain, pumping water or generating</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 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 know that natural structures are those found in nature</p> <p>To know that man-made structures are those made by people</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 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 'free-standing' structure is one which can stand on its own</p> <p>To know that a pavilions ia 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 know that a product's function means its purpose</p> <p>To understand that the target audience means the person or group of people a product is designed for</p> <p>To know that architects consider light, shadow and patterns when designing</p>	<p>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 their properties</p> <p>To understand the material (functional and aesthetic) properties of wood</p> <p>To understand the difference between arch, beam, truss and suspension bridges</p> <p>To understand how to carry and use a saw safely</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>
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# Progression of Knowledge and Skill in Design and Technology



		<p>electricity</p> <p>To know that windmill turbines use wind to turn and make the machines inside work</p> <p>To know that a windmill is a structure with sails that are moved by the wind</p> <p>To know the three main parts of a windmill are the turbine, axle and structure</p>					
	<b>Skills</b>	<p><b>Year 1</b></p> <p>Learning the importance of a clear design criteria (Design)</p> <p>Including individual preferences and requirements in a design (Design)</p> <p>Making stable structures from card, tape and glue</p> <p>Learning how to turn 2D nets into 3D structures (Make)</p>	<p><b>Year 2</b></p> <p>Generating and communicating ideas using sketching and modelling (Design)</p> <p>Learning about different types of structures, found in the natural world and in everyday objects (Design)</p> <p>Making a structure according to design criteria (Make)</p> <p>Creating joints and structures from</p>	<p><b>Year 3</b></p> <p>Designing a castle with key features to appeal to a specific person/purpose (Design)</p> <p>Drawing and labelling a castle design using 2D shapes, labelling: -the 3D shapes that will create the features - materials needed and colours (Design)</p> <p>Designing and/or decorating a castle</p>	<p><b>Year 4</b></p> <p>Designing a stable pavilion structure that is aesthetically pleasing and selecting materials to create a desired effect (Design)</p> <p>Building frame structures designed to support weight (Design)</p> <p>Creating a range of different shaped frame structures (Make)</p>	<p><b>Year 5</b></p> <p>Designing a stable structure that is able to support weight (Design)</p> <p>Creating frame structure with focus on triangulation (Design)</p> <p>Making a range of different shaped beam bridges (Make)</p> <p>Using triangles to create truss bridges that span a given distance and</p>	<p><b>Year 6</b></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 (Design)</p> <p>Building a range of play apparatus structures drawing upon new and prior knowledge of structures (Make)</p>

# Progression of Knowledge and Skill in Design and Technology



	<p>Following instructions to cut and assemble the supporting structure of a windmill (Make)</p> <p>Making functioning turbines and axles which are assembled into a main supporting structure (Make)</p>	<p>paper/card and tape (Make)</p> <p>Building a strong and stiff structure by folding paper (Make)</p> <p>Exploring the features of structures (Evaluate)</p> <p>Comparing the stability of different shapes (Evaluate)</p> <p>Testing the strength of own structures (Evaluate)</p> <p>Identifying the weakest part of a structure (Evaluate)</p> <p>Evaluating the strength, stiffness and stability of own structure (Evaluate)</p>	<p>tower on CAD software (Design)</p> <p>Constructing a range of 3D geometric shapes using nets (Make)</p> <p>Creating special features for individual designs (Make)</p> <p>Making facades from a range of recycled materials (Make)</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 (Evaluate)</p> <p>Suggesting points for modification of the individual designs (Evaluate)</p>	<p>Making a variety of free standing frame structures of different shapes and sizes (Make)</p> <p>Selecting appropriate materials to build a strong structure and for the cladding (Make)</p> <p>Reinforcing corners to strengthen a structure (Make)</p> <p>Creating a design in accordance with a plan (Make)</p> <p>Learning to create different textural effects with materials (Make)</p> <p>Evaluating structures made by the class (Evaluate)</p> <p>Describing what characteristics of a design and construction made it the most effective (Evaluate)</p> <p>Considering effective and ineffective designs (Evaluate)</p>	<p>supports a load (Make)</p> <p>Building a wooden bridge structure (Make)</p> <p>Independently measuring and marking wood accurately (Make)</p> <p>Selecting appropriate tools and equipment for particular tasks (Make)</p> <p>Using the correct techniques to saws safely (Make)</p> <p>Identifying where a structure needs reinforcement and using card corners for support (Make)</p> <p>Explaining why selecting appropriating materials is an important part of the design process (Make)</p> <p>Understanding basic wood functional properties (Evaluate)</p> <p>Adapting and improving own bridge structure by identifying points of</p>	<p>Measuring, marking and cutting wood to create a range of structures (Make)</p> <p>Using a range of materials to reinforce and add decoration to structures (Make)</p> <p>Improving a design plan based on peer evaluation (Evaluate)</p> <p>Testing and adapting a design to improve it as it is developed (Evaluate)</p> <p>Identifying what makes a successful structure (Evaluate)</p>
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# Progression of Knowledge and Skill in Design and Technology



						<p>weakness and reinforcing them as necessary (Evaluate)</p> <p>Suggesting points for improvements for own bridges and those designed by others (Evaluate)</p>	
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## Vocabulary (shared language)

	KS1	Phase 2	Phase 3
Autumn	<ul style="list-style-type: none"> <li>• Blender</li> <li>• Fruit</li> <li>• Carton</li> <li>• Healthy</li> <li>• Ingredients</li> <li>• Peel, peeler</li> <li>• Recipe</li> <li>• Slice</li> <li>• Smoothie</li> <li>• Stencil</li> <li>• Template</li> <li>• Vegetable</li> <li>• Threading</li> <li>• Fabrics</li> <li>• Sewing</li> <li>• Pinning</li> <li>• Cutting</li> <li>• Template</li> </ul>	<ul style="list-style-type: none"> <li>• Template</li> <li>• Decorating</li> <li>• Threading</li> <li>• Knots</li> <li>• Cross stitch</li> <li>• Applique</li> <li>• Sewing</li> <li>• Adapting</li> <li>• Baking</li> <li>• Recipe</li> <li>• Hygiene</li> <li>• Safety</li> <li>• Texture</li> <li>• Appearance</li> <li>• Taste</li> </ul>	<ul style="list-style-type: none"> <li>• 3 dimensional</li> <li>• 2 dimensional</li> <li>• Measuring</li> <li>• Marking</li> <li>• Cutting</li> <li>• Blanket stitch</li> <li>• Pinning</li> <li>• Panels</li> <li>• Running stitch</li> <li>• Knots</li> <li>• Waistcoat</li> <li>• Thread</li> <li>• Fastenings</li> <li>• Decorative stitch</li> </ul>

# Progression of Knowledge and Skill in Design and Technology



	<ul style="list-style-type: none"> <li>• Stitches</li> </ul>		
Spring	<ul style="list-style-type: none"> <li>• Decorate</li> <li>• Design</li> <li>• Fabric</li> <li>• Glue</li> <li>• Model</li> <li>• Hand puppet</li> <li>• Safety pin</li> <li>• Staple</li> <li>• Stencil</li> <li>• Template</li> </ul> <p>Alternative</p> <ul style="list-style-type: none"> <li>• Diet</li> <li>• Balanced diet</li> <li>• Evaluation</li> <li>• Expensive</li> <li>• Healthy</li> <li>• Ingredients</li> <li>• Nutrients</li> <li>• Packaging</li> <li>• Refrigerator</li> <li>• Sugar</li> <li>• Substitute</li> </ul>	<p>2D shapes</p> <ul style="list-style-type: none"> <li>• 3D shapes</li> <li>• Castle</li> <li>• Design criteria</li> <li>• Evaluate</li> <li>• Facade</li> <li>• Feature</li> <li>• Flag</li> <li>• Net</li> <li>• Recyclable</li> <li>• Scoring</li> <li>• Stable</li> <li>• Strong</li> <li>• Structure</li> <li>• Tab</li> <li>• Weak</li> </ul> <p>Aesthetic</p> <ul style="list-style-type: none"> <li>• Assemble</li> <li>• Book sleeve</li> <li>• Design criteria</li> <li>• Evaluation</li> <li>• Fabric</li> <li>• Fastening</li> <li>• Mock-up</li> <li>• Net</li> <li>• Running-stitch</li> <li>• Stencil</li> <li>• Target audience</li> <li>• Target customer</li> <li>• Template</li> </ul>	<p>Beef</p> <ul style="list-style-type: none"> <li>• Cross-contamination</li> <li>• Diet</li> <li>• Ethical issues</li> <li>• Farm</li> <li>• Healthy</li> <li>• Ingredients</li> <li>• Method</li> <li>• Nutrients</li> <li>• Packaging</li> <li>• Reared</li> <li>• Recipe</li> <li>• Research</li> <li>• Substitute</li> <li>• Supermarket</li> <li>• Vegan</li> <li>• Vegetarian</li> <li>• Welfare</li> </ul> <p>Adapt</p> <ul style="list-style-type: none"> <li>• Apparatus</li> <li>• Bench hook</li> <li>• Cladding</li> <li>• Coping saw</li> <li>• Design</li> <li>• Dowel</li> <li>• Evaluation</li> <li>• Feedback</li> <li>• Idea</li> <li>• Jelutong</li> <li>• Landscape</li> <li>• Mark out</li> <li>• Measure</li> <li>• Modify</li> <li>• Natural materials</li> <li>• Playground</li> <li>• Prototype</li> </ul>

# Progression of Knowledge and Skill in Design and Technology



			<ul style="list-style-type: none"> <li>● Reinforce</li> <li>● Sketch</li> <li>● Strong</li> <li>● Structure</li> <li>● Tenon saw</li> <li>● Texture</li> <li>● User</li> <li>● Vice</li> <li>● Weak</li> </ul>
Summer	<p>Client</p> <ul style="list-style-type: none"> <li>● Design</li> <li>● Evaluation</li> <li>● Net</li> <li>● Stable</li> <li>● Strong</li> <li>● Test</li> <li>● Weak</li> <li>● Windmill</li> </ul> <p>Function</p> <ul style="list-style-type: none"> <li>● Man-made</li> <li>● Mould</li> <li>● Natural</li> <li>● Stable</li> <li>● Stiff</li> <li>● Strong</li> <li>● Structure</li> <li>● Test</li> <li>● Weak</li> </ul>	<p>Climate</p> <ul style="list-style-type: none"> <li>● Dry climate</li> <li>● Exported</li> <li>● Imported</li> <li>● Mediterranean climate</li> <li>● Nationality</li> <li>● Nutrients</li> <li>● Polar climate</li> <li>● Recipe</li> <li>● Seasonal food</li> <li>● Seasons</li> <li>● Temperate climate</li> <li>● Tropical climate</li> </ul> <p>Aesthetic</p> <ul style="list-style-type: none"> <li>● Cladding</li> <li>● Design criteria</li> <li>● Evaluation</li> <li>● Frame structure</li> <li>● Function</li> <li>● Inspiration</li> <li>● Pavilion</li> <li>● Reinforce</li> <li>● Stable</li> <li>● Structure</li> <li>● Target audience</li> <li>● Target customer</li> <li>● Texture</li> <li>● Theme</li> </ul>	<p>Abutment</p> <ul style="list-style-type: none"> <li>● Accurate</li> <li>● Arched bridge</li> <li>● Beam bridge</li> <li>● Coping saw</li> <li>● Evaluation</li> <li>● File</li> <li>● Mark out</li> <li>● Material properties</li> <li>● Measure</li> <li>● Predict</li> <li>● Reinforce</li> <li>● Research</li> <li>● Sandpaper</li> <li>● Set square</li> <li>● Suspension bridge</li> <li>● Tenon saw</li> <li>● Test</li> <li>● Truss bridge</li> <li>● Wood</li> </ul> <p>Accompaniment</p> <ul style="list-style-type: none"> <li>● Collaboration</li> <li>● Cookbook</li> <li>● Cross-contamination</li> <li>● Equipment</li> <li>● Farm</li> <li>● Flavour</li> <li>● Illustration</li> <li>● Imperative-verb</li> </ul>

# Progression of Knowledge and Skill in Design and Technology



			<ul style="list-style-type: none"><li>• Ingredients</li><li>• Method</li><li>• Nationality</li><li>• Preparation</li><li>• Processed</li><li>• Reared</li><li>• Recipe</li><li>• Research</li><li>• Storyboard</li><li>• Target audience</li><li>• Top tips</li></ul>
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