



The Federation of Middleham (VA) and Spennithorne (VC) CE Primary Schools

Executive Headteacher – Mrs Marie Mann

Blessed is the one who trusts in the Lord, whose confidence is in him.
 They will be like a tree planted by the water that sends out its roots by the stream.
 It does not fear when heat comes; its leaves are always green.
 It has no worries in a year of drought and never fails to bear fruit.

Jeremiah 17: 7 - 8

DT (Design Technology) Long Term Plan

Cycle A	Autumn	Spring	Summer
EYFS	All about Me! Let's Celebrate	Ticket to Ride Come Outside!	Amazing Animals Fun at the Seaside
Year 1 & 2	Mechanisms: Making a moving story book Explore slider mechanisms and the movement they output, to design, make and evaluate a moving storybook from a range of templates.	Materials and textiles: Making animal puppets Explore methods of joining fabric. Design and make a character-based hand puppet using a preferred joining technique, before decorating.	Food: Fruit and vegetables Children handle and explore fruits and vegetables and learn how to identify which category they fall into, before undertaking taste testing to establish their chosen ingredients for the smoothie they will make and design packaging for.
Year 3 & 4	Textiles: Egyptian Collars	Food: Adapting a recipe	Mechanical systems: Pneumatic toys
Year 5 & 6	Mechanical Systems: Making a pop-up book (Christmas themed for a younger child)	Food: What could be healthier? (Make links to local shops, local food products)	Structures: Bridges

Cycle B	Autumn	Spring	Summer
EYFS	All about Me! Let's Celebrate	Ticket to Ride Come Outside!	Amazing Animals Fun at the Seaside
Year 1 & 2	Structures: Baby Bear's chair (or The Great Fire of London Baker's Chair) Explore stability and methods to strengthen structures, to understand Baby Bear's chair weaknesses and develop an improved solution for him to use.	Food: A balanced diet Learn about the food groups (carbohydrates, proteins, fruits and vegetables, dairy, oils and spreads) to understand a balanced diet to develop a healthy wrap.	Mechanisms: Fairground wheel Design and create a functional Ferris wheel, learn how different components fit together so that the wheel rotates and the structure stands freely. Textiles: Pouches (to take pocket money in to the seaside) Learn how to sew a running stitch ready to design, make and decorate a pouch using a template.
Year 3 & 4	Electronic systems: Torches Textiles: Fastenings	Structures: Pavilions	Food: Eating seasonally
Year 5 & 6	Textiles: Waistcoats Electronic Systems: Steady Hand Games (for Christmas Fair)	Structure: Playgrounds	Food: Come dine with me

DT in the EYFS 2022 - 2023

Expressive Arts and Design (DT)	Development Matters (Guidance)	ELG (Statutory Framework)	How this achieved in EYFS	Knowledge, skills and vocabulary: By the end of EYFS the children will know...
	<p>Reception:</p> <ul style="list-style-type: none"> • Explore, use and refine a variety of artistic effects to express their ideas and feelings. • Return to and build on their previous learning, refining ideas and developing their ability to represent them. • Create collaboratively, sharing ideas, resources. • 	<p>Creating with materials</p> <ul style="list-style-type: none"> • Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function. • Share their creations, explaining the process they have used. 	<p>General learning throughout the year</p> <ul style="list-style-type: none"> • Make a boat for the Gingerbread man to safely cross the river. • Making types of transport. (Junk models) • Making lighthouses. • Making /decorating cards for various occasions. (Christmas, Birthday, Easter, Thank you) • Design and build mini beast houses, adapting work where necessary. • Design and create animals, vehicles from junk (Link to all topics) • Design and create products for a purpose such as a basket for Red Riding Hood / Houses for the pigs. • Den making in the outdoor area. • Observe the effects of cooking when making food e.g. bread. • Create our homes from construction blocks. • Make kites <p>General learning throughout the year</p> <ul style="list-style-type: none"> • Children can self-select from a range of tools and materials in the continuous provision. • Children learn by experimenting with tools such as scissors, staplers and hole punches. They make use of fixing and joining materials such as sellotape, masking tape, string, pipe cleaners and glue. • Through questioning children are encouraged to talk about what they like about their work and other children’s designs and how they would improve it. <p>Help to design and make small worlds in line with topic.</p>	<p>Knowledge:</p> <ul style="list-style-type: none"> • I know how to use scissors safely. • I can cut along a straight line. • I can cut along a wavy line. • I can join to items using tape. • I can use glue to fix items together • I know how draw a plan. • I know that I can adapt and change something I have made. • I can work with a friend, sharing ideas. • I know that some materials are better for building with than others. • I can talk about what I have made and say why. <hr/> <p>Skills:</p> <p>Represent their ideas verbally or as pictures. Change and effect materials using simple tools. Use scissors carefully. Use different materials for different purposes. Describe what they have made and its purpose. Know that different materials might be needed for different tasks. Understand the need for a healthy diet. To give examples of healthy and unhealthy food.</p> <hr/> <p>Vocabulary:</p> <p>Scissors, cut, straight, join, hold, fix, glue, shape, safely, colour, design, plan, create, make, explain, why, change, together, features, pieces.</p>

Cycle A: Year 1 & 2				
Topic Overview		Autumn	Spring	Summer
		Mechanisms: Making a moving story book Explore slider mechanisms and the movement they output, to design, make and evaluate a moving storybook from a range of templates.	Materials and textiles: Making animal puppets Explore methods of joining fabric. Design and make a character-based hand puppet using a preferred joining technique, before decorating.	Food: Fruit and vegetables Children handle and explore fruits and vegetables and learn how to identify which category they fall into, before undertaking taste testing to establish their chosen ingredients for the smoothie they will make and design packaging for.
Skills	Design	<ul style="list-style-type: none"> Explaining how to adapt mechanisms, using bridges or guides to control the movement. Designing a moving story book for a given audience. 	<ul style="list-style-type: none"> Using a template to create a design for a puppet. 	<ul style="list-style-type: none"> Designing smoothie carton packaging by-hand or on ICT software.
	Make	<ul style="list-style-type: none"> Following a design to create moving models that use levers and sliders. 	<ul style="list-style-type: none"> Cutting fabric neatly with scissors. Using joining methods to decorate a puppet. Sequencing the steps taken during construction. 	<ul style="list-style-type: none"> Chopping fruit and vegetables safely to make a smoothie. Identifying if a food is a fruit or a vegetable. Learning where and how fruits and vegetables grow
	Evaluate	<ul style="list-style-type: none"> Testing a finished product, seeing whether it moves as planned and if not, explaining why and how it can be fixed. Reviewing the success of a product by testing it with its intended audience. 	<ul style="list-style-type: none"> Reflecting on a finished product, explaining likes and dislikes. 	<ul style="list-style-type: none"> Tasting and evaluating different food combinations. Describing appearance, smell and taste. Suggesting information to be included on packaging
Knowledge	Technical	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> To know that 'joining technique' means connecting 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. 	<ul style="list-style-type: none"> Understanding the difference between fruits and vegetables. To understand that some foods typically known as vegetables are actually fruits (e.g. cucumber). To know that a blender is a machine which mixes ingredients together into a smooth liquid. To know that a fruit has seeds and a vegetable does not. To know that fruits grow on trees or vines. To know that vegetables can grow either above or below ground. To know that vegetables can come from different parts of the plant (e.g. roots: potatoes, leaves: lettuce, fruit: cucumber)
	Additional	<ul style="list-style-type: none"> To know that in Design and technology we call a plan a 'design'. 		

Cycle A: Year 3 & 4

Topic Overview		Autumn	Spring	Summer
		Textiles: Egyptian Collars	Food: Adapting a recipe	Mechanical Systems: Pneumatic toys
Skills	Design	<ul style="list-style-type: none"> • Designing and making a template from an Egyptian Collar and applying individual design criteria. 	<ul style="list-style-type: none"> • Designing a biscuit within a given budget, drawing upon previous taste testing judgements. 	<ul style="list-style-type: none"> • Designing a toy which uses a pneumatic system. • Developing design criteria from a design brief. • Generating ideas using thumbnail sketches and exploded diagrams. • Learning that different types of drawings are used in design to explain ideas clearly.
	Make	<p>Following design criteria to create an Egyptian collar.</p> <ul style="list-style-type: none"> • Selecting and cutting fabrics with ease using fabric scissors. • Threading needles with greater independence. • Tying knots with greater independence. • Sewing cross stitch to join fabric. • Decorating fabric using appliqué. • Completing design ideas by embellishing the collars based on design ideas (Egyptian collars). 	<ul style="list-style-type: none"> • Following a baking recipe, from start to finish, including the preparation of ingredients. • 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). 	<ul style="list-style-type: none"> • Creating a pneumatic system to create a desired motion. • Building secure housing for a pneumatic system. • Using syringes and balloons to create different types of pneumatic systems to make a functional and appealing pneumatic toy. • Selecting materials due to their functional and aesthetic characteristics. • Manipulating materials to create different effects by cutting, creasing, folding and weaving.
	Evaluate	<ul style="list-style-type: none"> • Evaluating an end product and thinking of other ways in which to create similar items. 	<ul style="list-style-type: none"> • 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, so next time I will use less raisins.). 	<ul style="list-style-type: none"> • Using the views of others to improve designs. • Testing and modifying the outcome, suggesting improvements. • Understanding the purpose of exploded-diagrams through the eyes of a designer and their client.
Knowledge	Technical	<p>To know that applique is a way of mending or decorating a textile by applying smaller pieces of fabric to larger pieces.</p> <ul style="list-style-type: none"> •To know that when two edges of fabric have been joined together it is called a seam. •To know that it is important to leave space on the fabric for the seam. •To understand that some products are turned inside out after sewing so the stitching is hidden 	<ul style="list-style-type: none"> • To know that the amount of an ingredient in a recipe is known as the 'quantity.' • To know that it is important to use oven gloves when removing hot food from an oven. • To know the following cooking techniques: sieving, creaming, rubbing method, cooling. •To understand the importance of budgeting while planning ingredients for biscuits. 	<ul style="list-style-type: none"> • To understand how pneumatic systems work. • To understand that pneumatic systems can be used as part of a mechanism. • To know that pneumatic systems operate by drawing in, releasing and compressing air.
	Additional			<ul style="list-style-type: none"> • To understand how sketches, drawings and diagrams can be used to communicate design ideas. • To know that exploded-diagrams are used to show how different parts of a product fit together. • To know that thumbnail sketches are small drawings to get ideas down on paper quickly.

Cycle A: Year 5 & 6

Topic Overview		Autumn	Spring	Summer
		Mechanical Systems: Making a pop-up book (Christmas themed for a younger child)	Food: What could be healthier? (Make links to local shops, local food products)	Structures: Bridges
Skills	Design	<ul style="list-style-type: none"> • Designing a pop-up book which uses a mixture of structures and mechanisms. • Naming each mechanism, input and output accurately. • Storyboarding ideas for a book. 	<ul style="list-style-type: none"> • 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 	<ul style="list-style-type: none"> • Designing a stable structure that is able to support weight. • Creating a frame structure with a focus on triangulation
	Make	<ul style="list-style-type: none"> • Following a design brief to make a pop up book, neatly and with focus on accuracy. • Making mechanisms and/or structures using sliders, pivots and folds to produce movement. • Using layers and spacers to hide the workings of mechanical parts for an aesthetically pleasing result. 	<ul style="list-style-type: none"> • Cutting and preparing vegetables safely. • Using equipment safely, including knives, hot pans and hobs. • Knowing how to avoid cross-contamination. • Following a step by step method carefully to make a recipe. 	<ul style="list-style-type: none"> • Making a range of different shaped beam bridges. • Using triangles to create truss bridges that span a given distance and support a load. • Building a wooden bridge structure. • Independently measuring and marking wood accurately. • Selecting appropriate tools and equipment for particular tasks. • Using the correct techniques to saws safely. • Identifying where a structure needs reinforcement and using card corners for support. • Explaining why selecting appropriating materials is an important part of the design process. • Understanding basic wood functional properties
	Evaluate	<ul style="list-style-type: none"> • Evaluating the work of others and receiving feedback on own work. • Suggesting points for improvement. 	<ul style="list-style-type: none"> • Identifying the nutritional differences between different products and recipes. • Identifying and describing healthy benefits of food groups 	<ul style="list-style-type: none"> • Adapting and improving own bridge structure by identifying points of weakness and reinforcing them as necessary. • Suggesting points for improvements for own bridges and those designed by others.
Knowledge	Technical	<ul style="list-style-type: none"> • To know that mechanisms control movement. • To understand that mechanisms can be used to change one kind of motion into another. • To understand how to use sliders, pivots and folds to create paper-based mechanisms. 	<ul style="list-style-type: none"> • To understand where meat comes from - learning that beef is from cattle and how beef is reared and processed, including key welfare issues. • To know that I can adapt a recipe to make it healthier by substituting ingredients. • To know that I can use a nutritional calculator to see how healthy a food option is. • To understand that 'cross-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. 	<ul style="list-style-type: none"> • To understand some different ways to reinforce structures. • To understand how triangles can be used to reinforce bridges. • To know that properties are words that describe the form and function of materials. • To understand why material selection is important based on properties. • To understand the material (functional and aesthetic) properties of wood.
	Additional	<ul style="list-style-type: none"> • To know that a design brief is a description of what I am going to design and make. • To know that designers often want to hide mechanisms to make a product more aesthetically pleasing. 		<ul style="list-style-type: none"> • To understand the difference between arch, beam, truss and suspension bridges. • To understand how to carry and use a saw safely.

Topic Overview		Cycle B: Year 1 & 2			
		Autumn	Spring	Summer 1	Summer 2
		Structures: Baby Bear's chair (or The Great Fire of London Baker's Chair) Explore stability and methods to strengthen structures, to understand Baby Bear's chair weaknesses and develop an improved solution for him to use.	Food: A balanced diet Learn about the food groups (carbohydrates, proteins, fruits and vegetables, dairy, oils and spreads) to understand a balanced diet to develop a healthy wrap.	Mechanisms: Fairground wheel Design and create a functional Ferris wheel, learn how different components fit together so that the wheel rotates and the structure stands freely.	Textiles: Pouches (to take pocket money in to the seaside) Learn how to sew a running stitch ready to design, make and decorate a pouch using a template.
Skills	Design	<ul style="list-style-type: none"> Generating and communicating ideas using sketching and modelling. Learning about different types of structures, found in the natural world and in everyday objects. 	<ul style="list-style-type: none"> Designing a healthy wrap based on a food combination which works well together. 	<ul style="list-style-type: none"> Creating a class design criteria for a moving monster. Designing a moving monster for a specific audience in accordance with a design criteria. 	<ul style="list-style-type: none"> Designing a pouch.
	Make	<ul style="list-style-type: none"> Making a structure according to design criteria. Creating joints and structures from paper/card and tape. Building a strong and stiff structure by folding paper. 	<ul style="list-style-type: none"> Slicing food safely using the bridge or claw grip. Constructing a wrap that meets a design brief. 	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> 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.
	Evaluate	<ul style="list-style-type: none"> Exploring the features of structures. Comparing the stability of different shapes. Testing the strength of own structures. Identifying the weakest part of a structure. Evaluating the strength, stiffness and stability of own structure. 	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Evaluating own designs against design criteria. Using peer feedback to modify a final design. 	<ul style="list-style-type: none"> Troubleshooting scenarios posed by the teacher. Evaluating the quality of the stitching on others' work. Discussing as a class the success of their stitching against the success criteria. Identifying aspects of their peers' work that they particularly like and explaining why
Knowledge	Technical	<ul style="list-style-type: none"> To know that shapes and structures with wide, flat bases or legs are the most stable. To understand that the shape of a structure affects its strength. 	<ul style="list-style-type: none"> To know that 'diet' means the food and drink that a person or animal usually eats. To understand what makes a balanced diet. To know where to find the nutritional information on packaging. 	<ul style="list-style-type: none"> To know that mechanisms are a collection of moving parts that work together as a machine to produce movement. 	<ul style="list-style-type: none"> To know that sewing is a method of joining fabric. To know that different stitches can be used when sewing.

		<ul style="list-style-type: none"> • To know that materials can be manipulated to improve strength and stiffness. • To know that a structure is something which has been formed or made from parts. • To know that a 'stable' structure is one which is firmly fixed and unlikely to change or move. • To know that a 'strong' structure is one which does not break easily. • To know that a 'stiff' structure or material is one which does not bend easily. 	<ul style="list-style-type: none"> • To know that the five main food groups are: Carbohydrates, fruits and vegetables, protein, dairy and foods high in fat and sugar. • To understand that I should eat a range of different foods from each food group, and roughly how much of each food group. • To know that nutrients are substances in food that all living things need to make energy, grow and develop. • To know that 'ingredients' means the items in a mixture or recipe. • To know that I should only have a maximum of five teaspoons of sugar a day to stay healthy. • To know that many food and drinks we do not expect to contain sugar do; we call these 'hidden sugars' 	<ul style="list-style-type: none"> • 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 	<ul style="list-style-type: none"> • To understand the importance of tying a knot after sewing the final stitch. • To know that a thimble can be used to protect my fingers when sewing.
	<p>Additional</p>	<ul style="list-style-type: none"> • To know that natural structures are those found in nature. • To know that man-made structures are those made by people 		<ul style="list-style-type: none"> • To know some real-life objects that contain mechanisms. 	

		Cycle B: Year 3 & 4			
Topic Overview		Autumn 1	Autumn 2	Spring	Summer
		Electronic systems: Torches	Textiles: Fastenings	Structures: Pavilions	Food: Eating seasonally
Skills	Design	<ul style="list-style-type: none"> Designing a torch, giving consideration to the target audience and creating both design and success criteria focusing on features of individual design ideas. 	<ul style="list-style-type: none"> Writing design criteria for a product, articulating decisions made. Designing a personalised book sleeve. 	<ul style="list-style-type: none"> Designing a stable pavilion structure that is aesthetically pleasing and selecting materials to create a desired effect. Building frame structures designed to support weight. 	<ul style="list-style-type: none"> Creating a healthy and nutritious recipe for a savoury tart using seasonal ingredients, considering the taste, texture, smell and appearance of the dish
	Make	<ul style="list-style-type: none"> Making a torch with a working electrical circuit and switch. Using appropriate equipment to cut and attach materials. Assembling a torch according to the design and success criteria. 	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Creating a range of different shaped frame structures. Making a variety of free standing frame structures of different shapes and sizes. Selecting appropriate materials to build a strong structure and cladding. Reinforcing corners to strengthen a structure. Creating a design in accordance with a plan. Learning to create different textural effects with materials. 	<ul style="list-style-type: none"> Knowing how to prepare themselves and a work space to cook safely in, learning the basic rules to avoid food contamination. Following the instructions within a recipe.
	Evaluate	<ul style="list-style-type: none"> Evaluating electrical products. Testing and evaluating the success of a final product 	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Evaluating structures made by the class. Describing what characteristics of a design and construction made it the most effective. Considering effective and ineffective designs. 	<ul style="list-style-type: none"> 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.
Knowledge	Technical	<ul style="list-style-type: none"> To understand that electrical conductors are materials which electricity can pass through. To understand that electrical insulators are materials which electricity cannot pass through. To know that a battery contains stored electricity that can be used to power products. 	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> To understand what a frame structure is To know that a 'free-standing' structure is one which can stand on its own 	<ul style="list-style-type: none"> To know that not all fruits and vegetables can be grown in the UK. To know that climate affects food growth. To know that vegetables and fruit grow in certain seasons. To know that cooking instructions are known as a 'recipe'. To know that imported food is food which has been brought into the country.

		<ul style="list-style-type: none"> • To know that an electrical circuit must be complete for electricity to flow. • To know that a switch can be used to complete and break an electrical circuit 			<ul style="list-style-type: none"> • To know that exported food is food which has been sent to another country.. • To understand that imported foods travel from far away and this can negatively impact the environment. • To know that each fruit and vegetable gives us nutritional benefits because they contain vitamins, minerals and fibre. • To understand that vitamins, minerals and fibre are important for energy, growth and maintaining health. • 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.
	Additional	<ul style="list-style-type: none"> • To know the features of a torch: case, contacts, batteries, switch, reflector, lamp, lens. • To know facts from the history and invention of the electric light bulb(s) - by Sir Joseph Swan and Thomas Edison. 		<ul style="list-style-type: none"> • To know that a pavilion is a a decorative building or structure for leisure activities. • To know that cladding can be applied to structures for different effects. • To know that aesthetics are how a product looks. • To know that a product's function means its purpose. • To understand that the target audience means the person or group of people a product is designed for. • To know that architects consider light, shadow and patterns when designing 	

Cycle B: Year 5 & 6					
Topic Overview		Autumn 1	Autumn 2	Spring	Summer
		Textiles: Waistcoats	Electronic Systems: Steady Hand Games (for Christmas Fair)	Structure: Playgrounds	Food: Come dine with me
Skills	Design	<ul style="list-style-type: none"> • Designing a waistcoat in accordance to a specification linked to set of design criteria. • Annotating designs, to explain their decisions. 	<ul style="list-style-type: none"> • 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'. 	<ul style="list-style-type: none"> • Designing a playground featuring a variety of different structures, giving careful consideration to how the structures will be used, considering effective and ineffective designs 	<ul style="list-style-type: none"> • Writing a recipe, explaining the key steps, method and ingredients. • Including facts and drawings from research undertaken.
	Make	<ul style="list-style-type: none"> • 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. • Sewing accurately with evenly spaced, neat stitches. 	<ul style="list-style-type: none"> • 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. 	<ul style="list-style-type: none"> • Building a range of play apparatus structures drawing upon new and prior knowledge of structures. • Measuring, marking and cutting wood to create a range of structures. • Using a range of materials to reinforce and add decoration to structures. 	<ul style="list-style-type: none"> • Following a recipe, including using the correct quantities of each ingredient. • Adapting a recipe based on research. • Working to a given timescale. • Working safely and hygienically with independence.
	Evaluate	<ul style="list-style-type: none"> • Reflecting on their work continually throughout the design, make and evaluate process. 	<ul style="list-style-type: none"> • 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. 	<ul style="list-style-type: none"> • Improving a design plan based on peer evaluation. • Testing and adapting a design to improve it as it is developed. • Identifying what makes a successful structure. 	<ul style="list-style-type: none"> • 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 process. • Evaluating health and safety in production to minimise cross contamination.

Knowledge	Technical	<ul style="list-style-type: none"> • 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 consistently sized stitches. 	<ul style="list-style-type: none"> • 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. 	<ul style="list-style-type: none"> • To know that structures can be strengthened by manipulating materials and shapes. 	<ul style="list-style-type: none"> • To know that 'flavour' is how a food or drink tastes. • To know that many countries have 'national dishes' which are recipes associated with that country. • To know that 'processed food' means food that has been put through multiple changes in a factory. • To understand that it is important to wash fruit and vegetables before eating to remove any dirt and insecticides. • To understand what happens to a certain food before it appears on the supermarket shelf (Farm to Fork)
	Additional		<ul style="list-style-type: none"> • 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' 	<ul style="list-style-type: none"> • To understand what a 'footprint plan' is. • To understand that in the real world, design , can impact users in positive and negative ways. • To know that a prototype is a cheap model to test a design idea. 	