

**Marriott Primary School
Design Technology Curriculum**

Design and Technology is an inspiring and practical subject. The subject encourages children to learn to think and intervene creatively to solve problems both as individuals and as members of a team. At Marriott Primary School, we encourage children to use their creativity and imagination, to design and make products that solve real and relevant problems within a variety of contexts, considering their own and others' needs, wants and values. We aim to, wherever possible, link work to other disciplines such as mathematics, science, engineering, computing and art. The children are also given opportunities to reflect upon and evaluate past and present design technology, its uses and its effectiveness and are encouraged to become innovators and risk-takers.

The Design & Technology Association states that:

“D&T gives children the opportunity to develop skills, knowledge and understanding of designing and making functional products. We feel it is vital to nurture creativity and innovation through design, and by exploring the designed and made world in which we all live and work.” and

“D&T brings learning to life. It is a motivating context for discovering literacy, mathematics, science, art, PSHE and ICT. Primary Design and Technology also provides a firm basis for later learning in the subject and a platform for developing skills in literacy and numeracy.”

Our Design and Technology curriculum provides children with a real life context for learning, and also allows them to revisit key skills and knowledge. Our aim is to allow children to aspire to be more through creating opportunities for them to see things working in the wider world. Through a Design and Technology curriculum which provides progression from EYFS through to Year 6, the children can be inspired to create a range of structures, mechanisms, textiles, electrical systems and food products with a real life purpose.

At Marriott Primary School, the initial barriers to the children's learning in, Design Technology are significant:

- **On entry to EYFS, a large number of our pupils have underdeveloped Fine Motor Skills (FMS), needed for activities such as cutting and being able to manipulate resources. It is well known in Early Years research that before FMS can be improved children need to be exposed to many opportunities to develop their Gross Motor Skills (GMS), which some children do arrive at Marriott possessing. Within their planning, our Foundation Base crucially provide many and varied experiences in both GMS and FMS activities, thus enabling those lacking GMS**

on entry to develop them, whilst at the same time still encouraging those ready to improve and develop their FMS.

- The children’s experiences are often limited to their local area resulting in a lack of life experiences, understanding of the world, a limited vocabulary and often a struggle to retain information. The majority of children have yet to experience any use of technology for design purposes beyond using apps on hand held devices. Few pupils have the opportunity to investigate or design using real, physical materials, which in turn means that they have little or no experience of using appropriate equipment safely and with confidence.
- The children often have little or no knowledge of nutrition, healthy ingredients and where things are grown, reared, caught and processed, so the Food element of DT is so important.

It is clear to see that this lack of key knowledge prevents many children initially to be able to pose questions, and they can lack the ability to relate new experiences to previous learning. This in turn prevents some children having a sense of wonder and having ambitions in life.

However, we believe that our Design and Technology Curriculum will prepare the children to look forward and deal with a rapidly changing world. By the end of Year 6, they will have been increasingly encouraged and supported to think imaginatively, become problem solvers who can work well independently and with their peers and be ready for progression to Key Stage 3.

Our 5 key themes at Marriott are:

Conflict	Inequality	Significance	Playing My Part	Success
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**Design Technology progression of Skills EYFS
Foundation 1**

Autumn 1- Settling in/All about me	<p>Explore different materials, using all their senses to investigate them.</p> <p>Manipulate and play with different materials.</p>
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<p>Key Vocabulary Cut, stick, scissors, glue, pencil, paper</p>	<p>Use large-muscle movements to wave flags and streamers, paint and make marks.</p>
<p>Autumn 2- Autumn Celebrations and The Magic of 3</p>	<p>Develop manipulation and control.</p>
<p>Key Vocabulary Colours, make, draw and cardboard</p>	<p>Explore different materials and tools.</p> <p>Use large and small motor skills to do things independently.</p> <p>Build with a range of resources.</p>
<p>Spring 1-All Creatures Great and Small</p>	<p>Join different materials and explore different textures.</p>
<p>Key Vocabulary Short, small, tall and wide</p>	<p>Use one-handed tools and equipment, for example, making snips in paper with scissors.</p>
<p>Spring 2- All Creatures Great and Small</p>	<p>Use a comfortable grip with good control when holding pens and pencils.</p>
<p>Key Vocabulary Change, big, small, smallest and biggest.</p>	<p>Talk about the differences between materials and changes they notice.</p>
<p>Summer 1-Transport and Journeys</p>	<p>Choose the right resources to carry out their own plan.</p>
<p>Key Vocabulary Fast slow, turn and spin</p>	<p>Explore how things work.</p>

<p>Summer 2-Superheroes</p>	<p>Make imaginative and complex ‘small worlds’ with blocks and construction kits, such as a city with different buildings and a park.</p> <p>Match their developing physical skills to tasks and activities in the setting. For example, they decide whether to crawl, walk or run across a plank, depending on its length and width.</p>
<p>Key Vocabulary Strong, weak, build and idea.</p>	
<p>Foundation Stage 2</p>	
<p>Autumn 1- All About Me/Superheroes</p>	<p>Explore the natural world around them.</p> <p>Making marks for meaning.</p>
<p>Key Vocabulary Use, move, tools and shape.</p>	
<p>Autumn 2- Celebrations & Sensational Seasons</p>	<p>Develop small motor skills and begin to use pencils, scissors, knives and forks.</p> <p>Develop overall body strength.</p> <p>Begin to experiment with colour, design, texture, form and function.</p>
<p>Key Vocabulary Mix, stir, cut, chop and cook.</p>	
<p>Spring 1 – Space</p>	<p>Asks questions to find out more.</p> <p>Hold a pencil effectively in preparation for fluent writing.</p>

<p>Key Vocabulary Plan, design, like and dislike</p>	<p>Progress towards a more fluent style of moving.</p> <p>Confidently and safely use a range of small and large apparatus.</p> <p>Use props and materials when engaged in role play.</p>
<p>Spring 2- Animals all around us</p>	<p>Explore, use and refine a variety of artistic effects to express their ideas and feelings.</p>
<p>Key Vocabulary Better, different, worse, same</p>	<p>Negotiate space and obstacles safely, with consideration for themselves and others;</p> <p>Demonstrate strength, balance and coordination when playing;</p>
<p>Summer 1- Magic and Mystery: Traditional Tales</p>	<p>Share creations, explaining the process used.</p>
<p>Key Vocabulary Join, combine, materials and check.</p>	<p>Create collaboratively, sharing ideas, resources and skills.</p>
<p>Summer 2- What animals would we meet in the jungle?</p>	<p>Return to and build on their previous learning, refining ideas and developing their ability to represent them.</p>
<p>Key Vocabulary Complete, final, next time and instead</p>	<p>Continue, copy and create repeating patterns.</p>

Design Technology progression of skills Year 1

2 key pieces of knowledge or concepts/vocabulary the children must know by the end of this topic.

Autumn 2 - Mechanics – Making a moving story book		Lessons: <ol style="list-style-type: none"> 1. Exploring sliders and movement 2. Design 3. Construction 4. Testing and evaluation
FOOD – FRUIT & VEG SMOOTHIE (Aut 1)		
Focus Themes:		Vocabulary: Test, slider, plan, cut and stick. Key Facts/ Concepts: Up, down, left and right are words which can be used to describe something that moves. Portrait and landscape are different ways a piece of paper can be used. A slider can be made using card and it can help a character move in a story book.
Design	Use existing knowledge to generate their own original designs Generate, develop, model and communicate their ideas through talking and drawing.	
Make	Select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing].	
Evaluate	Suggest who their product could be used by and how they could be improved.	
Technical knowledge	Explore and use mechanisms [for example, levers and sliders]	
Spring 2 - Textiles - Puppets		Lessons: <ol style="list-style-type: none"> 1. Joining fabrics 2. Designing my puppet 3. Making and joining my puppet 4. Decorating my puppet
How can fabrics be joined together?		
Focus Themes: Significance and Success		Vocabulary: Puppet, pin, glue and tools. Key Facts/ Concepts: To create a puppet you may need to cut, glue, staple and pin. Puppets can all look different.
Design	Use existing knowledge to generate their own original designs Generate, develop, model and communicate their ideas through talking and drawing.	
Make	Select from and use a wide range of materials and components, including construction materials,	

<p>Evaluate</p> <p>Technical Knowledge</p>	<p>textiles and ingredients, according to their characteristics.</p> <p>Suggest who their product could be used by and how they could be improved.</p> <p>Understand how to use a safety pin to join two pieces of fabric together.</p>	<p>When you make a puppet, you might think about the hair colour, types of eyes, ears and nose.</p> <p>A safety pin holds two pieces of fabric together.</p>
<p>Summer 2 – Structures – Windmills</p> <p>What will make the perfect structure?</p>		<p><u>Lessons:</u></p> <ol style="list-style-type: none"> 1. Designing the structure 2. Assembling the structure 3. Assembling the windmill 4. Testing and evaluating
<p>Focus Themes: Significance and Success</p>		
<p>Design</p> <p>Make</p> <p>Evaluate</p> <p>Technical knowledge</p>	<p>Use existing knowledge to generate their own original designs Generate, develop, model and communicate their ideas through talking and drawing.</p> <p>Select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics.</p> <p>Select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing].</p> <p>Suggest who their product could be used by and how they could be improved.</p> <p>Build structures, exploring how they can be made stronger, stiffer and more stable.</p>	<p><u>Vocabulary:</u> Model, stable, strong, weak.</p> <p><u>Key Facts/ Concepts:</u> A structure is something that has been made and put together. You should make or draw a plan before building something. Changing the shape of a structure can make them stronger. When you build something, you should think about who it is for.</p>

Design Technology progression of skills Year 2

4 key pieces of knowledge or concepts/vocabulary the children must know by the end of this topic.

<p>Autumn 2 – Mechanics-Moving Monsters How can levers fit together to make a mechanism? FOOD – A balanced diet</p>		<p>Lessons:</p> <ol style="list-style-type: none"> 1. Pivots, levers and linkages 2. Making linkages 3. Designing my monster 4. Making my monster
<p>Focus Themes:</p>		
<p>Design</p>	<p>Design purposeful, functional, appealing products for themselves and other users based on design criteria. Generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology.</p>	<p>Vocabulary: Axle, lever, pivot and design</p> <p>Key Facts/ Concepts: A mechanism can make something move A linkage mechanism is made up of a series of levers Before making something you should design it. When we design something, we should test it to see if it works.</p>
<p>Make</p>	<p>Make and use their own template. Assemble, join and combine materials. Select from and use a range of tools, materials and equipment to perform practical tasks explaining their choices.</p>	
<p>Evaluate</p>	<p>Explore and evaluate a range of existing products. Evaluate their ideas and products against design criteria.</p>	
<p>Technical knowledge</p>	<p>Explore and use mechanisms in their products.</p>	
<p>Spring 2 – Mechanisms – Fairground Wheel</p>		<p>Lessons:</p> <ol style="list-style-type: none"> 1. Design a Ferris wheel

Focus Themes: Significance and Success		<p>2. Planning the build</p> <p>3. Building the frame and wheels</p> <p>4. Adding pods and decoration</p>
<p>Design</p> <p>Make</p> <p>Evaluate</p> <p>Technical knowledge</p>	<p>Design purposeful, functional, appealing products for themselves and other users based on design criteria. Generate, develop, model and communicate their ideas through talking, drawing, templates, mock- ups and, where appropriate, information and communication technology.</p> <p>Assemble, join and combine materials. Select from and use a range of tools, materials and equipment to perform practical tasks explaining their choices.</p> <p>Explore and evaluate a range of existing products. Evaluate their ideas and products against design criteria.</p> <p>Select a suitable linkage system to produce the desired motion</p>	<p><u>Vocabulary:</u> Structure, wheel, base and frame</p> <p><u>Key Facts/ Concepts:</u> Different materials have different properties so can be used for different things. The features of a Ferris wheel are the wheel, frame, pods, a base, an axle and an axle holder. It is important to test a design to check for problems.</p>
Summer 2 – Textiles – Pouches		<p><u>Lessons:</u></p> <ol style="list-style-type: none"> 1. Running stitch 2. Using a template 3. Making a pouch 4. Decorating a pouch
Why would I need to join fabrics together?		
Focus Themes: Significance and Success		
Design	<p>Design purposeful, functional, appealing products for themselves and other users based on design criteria. Generate, develop, model and communicate their ideas through talking, drawing, templates, mock- ups</p>	<p><u>Vocabulary:</u> Sew, fabric, needle, knot and pouch</p> <p><u>Key Facts/ Concepts:</u></p>

<p>Make</p> <p>Evaluate</p> <p>Technical Knowledge</p>	<p>and, where appropriate, information and communication technology.</p> <p>Make and use their own template. Assemble, join and combine materials. Select from and use a range of tools, materials and equipment to perform practical tasks explaining their choices.</p> <p>Explore and evaluate a range of existing products. Evaluate their ideas and products against design criteria. Use a running stitch.</p>	<p>Examples of sewn products are shoes, shirts, skirts and bags. A template helps you to draw a shape more easily. When cutting out a shape, you should be as accurate as possible. A design criteria helps us to be successful.</p>
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Design Technology progression of skills Year 3

6 key pieces of knowledge or concepts/vocabulary the children must know by the end of this topic.

<p>Autumn 2 – Mechanisms – Pneumatic toys How can we make toys move using air?</p>		<p><u>Lessons:</u></p> <ol style="list-style-type: none"> 1. Exploring pneumatics 2. Designing a pneumatic toy 3. Making pneumatic toys 4. Decorating and assembling my toy
<p>Focus Themes:</p>		
<p>Design</p>	<p>Gather information about the needs and wants of particular individuals and groups. Develop their own design criteria and use these to inform their ideas.</p>	<p><u>Vocabulary:</u> Function, input, mechanism, motion, output, pneumatic system</p> <p><u>Key Facts/ Concepts:</u></p>

<p>Make</p> <p>Evaluate</p> <p>Technical knowledge</p>	<p>Use simple fixing materials e.g. temporary- paper clips/tape and permanent- glue, staples. Generate, model and communicate their ideas through discussion, annotated sketches and exploded diagrams.</p> <p>Select from and use a wider range of materials and components, including construction materials, textiles and ingredients according to their functional properties and aesthetic qualities.</p> <p>Consider the views of others , including intended users, to improve their work. Identify the strengths and weaknesses of their ideas and products.</p> <p>Understand and use mechanical systems in their products [linkages]</p>	<p>Understand how a pneumatic system works. Pneumatic systems can be used as part of a mechanism. Pneumatic systems operate by drawing in, releasing and compressing air. A strength is a good quality. A weakness is not a good quality and needs fixing.</p>
<p>Spring 2 – Structures - Castles</p> <p>Are features important when building a castle?</p> <p>FOOD – Eating seasonally</p>		<p><u>Lessons:</u></p> <ol style="list-style-type: none"> 1. Features of a castle 2. Designing a castle 3. Nets and structures 4. Building a castle
<p>Focus Themes: Significance and Success</p>		<p><u>Vocabulary:</u> Tab, scoring, net, 2D shape, 3D shape and evaluation</p> <p><u>Key Facts/ Concepts:</u></p>
<p>Design</p> <p>Make</p>	<p>Develop their own design criteria and use these to inform their ideas. Use simple fixing materials e.g. temporary- paper clips/tape and permanent- glue, staples.</p> <p>Measure, mark out, cut out and shape materials and components.</p>	

<p>Evaluate</p> <p>Technical knowledge</p>	<p>Assemble, join and combine materials and components.</p> <p>Consider the views of others , including intended users, to improve their work.</p> <p>Identify the strengths and weaknesses of their ideas and products.</p> <p>Know how to make strong and stable structures.</p>	<p>A castle is a type of building that used to be built hundreds of years ago to defend land and for people to live in. Temporary fixings can be paper clips and tape.</p> <p>Permanent fixings are glue and staples. When designing, labels can be used to label the features, materials and colours.</p> <p>To construct 3D shapes, cut along the bold lines and fold the dotted lines. Folded lines should have crisp, folded edges.</p>
<p>Summer 2 – Electrical systems – Electrical Poster</p>		<p><u>Lessons:</u></p> <ol style="list-style-type: none"> 1. Information design 2. Topic research 3. Design development 4. Electric poster assembly
<p>Focus Themes: Conflict and Success</p>		
<p>Design</p> <p>Make</p> <p>Evaluate</p>	<p>Develop their own design criteria and use these to inform their ideas.</p> <p>Use simple fixing materials e.g. temporary- paper clips/tape and permanent- glue, staples.</p> <p>Select from and use a wider range of materials and components, including construction materials, textiles and ingredients according to their functional properties and aesthetic qualities.</p> <p>Consider the views of others, including intended users, to improve their work.</p>	<p><u>Vocabulary:</u></p> <p>Electricity, attract, feedback, motion, component and electrostatic</p> <p><u>Key Facts/ Concepts:</u></p> <p>To understand that an electrical system is a group of parts that work together to transport electricity around a circuit. An electric product often has a switch, battery or plug, dials, buttons. Products which use electricity are kettles, remote controls, TVs.</p>

<p>Technical knowledge</p>	<p>Identify the strengths and weaknesses of their ideas and products.</p> <p>Understand ways to give the product a higher quality finish e.g. framing to conceal a roughly cut edge</p> <p>Mount the poster onto corrugated card to improve its strength and withstand the weight of the circuit on the rear.</p>	<p>An electric product needs an electrical system.</p> <p>To know what a bulb, battery, battery holder and crocodile wire is and how they build a circuit.</p>
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Design Technology progression of skills Year 4

8 key pieces of knowledge or concepts/vocabulary the children must know by the end of this topic.

<p>Autumn 2 – Textiles - Fastenings</p> <p>FOOD – Adapting a recipe</p>		<p><u>Lessons:</u></p> <ol style="list-style-type: none"> 1. Evaluating fastenings 2. Designing my book sleeve 3. Paper mock-up and preparing fabric 4. Assembling my book sleeve
<p>Focus Themes:</p>		
<p>Design</p> <p>Make</p> <p>Evaluate</p>	<p>Research designs to generate their own design criteria and use these to inform their ideas. Generate, model and communicate their ideas through discussion and annotated sketches and prototypes.</p> <p>Select tools and equipment suitable for the task. Measure, mark out, cut and shape materials and components with some accuracy.</p>	<p><u>Vocabulary:</u> Aesthetic, assemble, fastening, prototype, alter, customer</p> <p><u>Key Facts/ Concepts:</u> There are a number of fastenings that can be used e.g zipper, Velcro, press stud or buckle. There are advantages and disadvantages to each type of fastening</p>

<p>Technical Knowledge</p>	<p>Investigate how well products have been designed, how well products have been made, how well products achieve their purpose.</p> <p>Understand the benefits and disadvantages of different types of fastenings.</p>	<p>e.g toggles and zippers are most expensive.</p> <p>A 2D net made from card can be created to check the size of something before using fabric.</p> <p>When the net is folded in to a 3d shape, we can test it to see if it needs to be bigger or smaller.</p> <p>There are different joining techniques that can be used e.g fabric glue, sewing and applique decorations.</p> <p>Templates need to be drawn accurately and they must follow a design.</p>
<p>Spring 2 – Electrical systems - Torches</p> <p>How hard is it to make a torch?</p>		<p><u>Lessons:</u></p> <ol style="list-style-type: none"> 1. Electrical products 2. Evaluating torches 3. Torch design 4. Torch assembly
<p>Focus Themes: Significance and Success</p>		
<p>Design</p> <p>Make</p> <p>Evaluate</p>	<p>Research designs to generate their own design criteria and use these to inform their ideas.</p> <p>Generate, model and communicate their ideas through discussion and annotated sketches.</p> <p>Understand how key events and individuals in design and technology have helped the world today.</p> <p>Select tools and equipment suitable for the task.</p> <p>Explain their choice of tools and equipment in relation to the skills and techniques they will be using.</p>	<p><u>Vocabulary:</u></p> <p>Electricity, conductor, insulator, torch, battery, bulb and switch</p> <p><u>Key Facts/ Concepts:</u></p> <p>Items which can use batteries are a remote control, torch and mobile phone.</p> <p>Electricity can come through the mains or from a battery.</p> <p>A torch needs housing, a reflector, a circuit and a switch.</p>

<p>Technical knowledge</p>	<p>Investigate how well products have been designed, how well products have been made, why materials have been chosen, how well products work, how well products achieve their purpose and how well the product meet user needs and wants.</p> <p>Understand how simple electrical circuits and components can be used to create functional products.</p>	<p>To see how well a product achieves its purpose, we may test it and then improve it.</p> <p>An electrical circuit must have a voltage, a conductor and usually an electric device.</p>
<p>Summer 2 – Mechanisms – Slingshot cars</p> <p>How can I make and store kinetic energy?</p>		<p><u>Lessons:</u></p> <ol style="list-style-type: none"> 1. Chassis and launch mechanism 2. Designing the car body 3. Making the car body 4. Assembling and testing
<p>Focus Themes: Significance and Success</p>		
<p>Design</p> <p>Make</p> <p>Evaluate</p>	<p>Research designs to generate their own design criteria and use these to inform their ideas. Generate, model and communicate their ideas through discussion and annotated sketches.</p> <p>Select tools and equipment suitable for the task. Explain their choice of tools and equipment in relation to the skills and techniques they will be using. Measure, mark out, cut and shape materials and components with some accuracy.</p> <p>Investigate how well products have been designed, how well products have been made, why materials have been chosen, what methods of construction</p>	<p><u>Vocabulary:</u> Air resistance, graphics, edit, purpose, view, develop</p> <p><u>Key Facts/ Concepts:</u> Kinetic energy is energy that causes an object to move. There are different viewing points: front view, bird’s-eye view and side view. Designs can develop over many years. Sling shot cars work by storing kinetic energy in the elastic band before launching. Changing a shape can increase or decrease the speed.</p>

<p>Technical knowledge</p>	<p>Investigate- who designed and made the products, where products were designed and made, when products were designed. Critically evaluate the quality of the design, manufacture and fitness for purpose of their products as they design and make.</p> <p>Understand how to create strong and secure stitches (blanket, running and cross stitch)</p>	<p>two pieces of fabric together. To stay safe when sewing, you need to be careful when threading the needle through fabric.</p>
<p>Spring 2- Mechanical systems- Making a pop-up book</p>		<p><u>Lessons:</u></p> <ol style="list-style-type: none"> 1. Pop-up book page design 2. Making my pop-up book 3. Using layers and spacers 4. Writing and illustrating
<p>Focus Themes:</p>		
<p>Design</p> <p>Make</p> <p>Evaluate</p>	<p>Develop design criteria to inform the design of innovative, functional, appealing products. Generate, develop, model and communicate their ideas through discussion, annotated sketches and computer- aided design.</p> <p>Use a wider range of materials and components, including construction materials and kits, textiles, food ingredients, mechanical components and electrical components. Assemble, join and combine materials and components with accuracy. Apply a range of finishing techniques, including those from art and design, with some accuracy.</p>	<p><u>Vocabulary:</u> Model, reinforce, research, criteria, , design, pivot</p> <p><u>Key Facts/ Concepts:</u> Mechanisms control movement Mechanisms can be used to change one kind of motion to another Paper-based mechanisms can be created with sliders, pivots and folds Designs often hide mechanisms to make a product more aesthetically pleasing</p>

Technical knowledge	Critically evaluate the quality of the design, manufacture and fitness for purpose of their products as they design and make. Identify points of weakness and strengthen where necessary.	
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Design Technology progression of skills Year 6
12 key pieces of knowledge or concepts/vocabulary the children must know by the end of this topic.

Autumn 2 – Electrical Systems: Steady Hand Game		<u>Lessons:</u> 1. Developing through plan 2. Game plan 3. Base building 4. Electronics and assembly
Focus Themes:		
Design	Identify the needs, wants, preferences and values of particular individuals and groups. Make design decisions, taking account of constraints such as time, resources and cost. Design using four different perspective drawings	<u>Vocabulary:</u> Assemble, benefit, design criteria, LED, user, buzzer, circuit <u>Key Facts/ Concepts:</u> Form means the shape and appearance of an object. Know the difference between form and function.
Make	Use techniques that involve a number of steps. Demonstrate resourcefulness e.g. make refinements. Accurately measure to nearest mm, mark out, cut and shape materials and components.	Understand that fit for purpose means that a product works how it should and it is easy to use.
Evaluate		Understand that form over purpose means that a product looks good but does not work very well.

<p>Technical knowledge</p>	<p>Test their own and others' finished produces, identifying what went well and making suggestions for improvements.</p> <p>Compare their ideas and products to their original design specification.</p> <p>To Understand the importance of 'form follows function' when designing; the product must be designed primarily with the function in mind.</p>	<p>Understand the importance of 'form follows function' when designing; the product must be designed primarily with the function in mind.</p>
<p>Summer 1 – Textiles – Felting</p> <p>An accidental or planned process?</p>		<p><u>Lessons:</u></p> <ol style="list-style-type: none"> 1. Create a design. 2. Layer the wool and create a picture 3. Connecting the fabrics 4. Ext- add embellishments
<p>Focus Themes: Conflict and Playing my part</p>		
<p>Design</p> <p>Make</p> <p>Evaluate</p> <p>Technical knowledge</p>	<p>Identify the needs, wants, preferences and values of particular individuals and groups.</p> <p>Make design decisions, taking account of constraints such as time, resources and cost.</p> <p>Accurately apply a range of finishing techniques, including those from art and design.</p> <p>Use techniques that involve a number of steps.</p> <p>Compare their ideas and products to their original design specification.</p> <p>To be able to combine wool fibres to make a fabric.</p>	<p><u>Vocabulary:</u></p> <p>Felting</p> <p>Fibres</p> <p>Fabric</p> <p>Horizontal</p> <p>Vertical</p> <p>Stimulus</p> <p>connect</p> <p><u>Key Facts/ Concepts:</u></p> <p>The process of felting:</p> <ol style="list-style-type: none"> 1. Lay out 1 layer one layer of wool horizontally 2. Lay out another layer vertically 3. Create a picture using different colours of wool. 4. Place a net over the work

		<p>5. Use hot, soapy water over the piece of work until wet. 6. Rub a piece of soap over the net. 7. Roll the piece of art on some bubble wrap and bamboo mat to remove the water. 8. Once it has connected, remove the net</p>
Summer 2 – Mechanisms – Automata toys		<u>Lessons:</u> <ol style="list-style-type: none"> 1. Automata 2. Frame assembly 3. Experimenting with cams 4. Finishing touches
Focus Themes:		
<p>Design</p> <p>Make</p> <p>Evaluate</p>	<p>Develop prototypes. Identify the needs, wants, preferences and values of particular individuals and groups.</p> <p>Demonstrate resourcefulness e.g. make refinements. Accurately measure to nearest mm, mark out, cut and shape materials and components.</p> <p>Investigate- how much products cost to make, how innovative products are and how sustainable the materials in the products are. Compare their ideas and products to their original design specification.</p> <p>Understand and use mechanical systems in their products [</p>	<p><u>Vocabulary:</u> cam, automata, component, frame, assembly diagram, analyse</p> <p><u>Key Facts/ Concepts:</u> The components of an automata toy are a character, follower, cam, frame and axle attached to a handle. If a cam shape is round, there is no movement. Changing the shape of the cam will create different movements. A dowel is a piece of wood in the shape of a cylinder and they come in different sizes and thickness.</p>

Technical knowledge	cams]	A hand drill is a drilling machine for making holes. The drill bits go in a drill to make different sized holes.
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Design Technology progression of skills

Food

<u>Year 1</u> Autumn 1 - Fruit & Vegetables		<u>Lessons:</u> <ol style="list-style-type: none"> 1. Fruit or vegetable? 2. Where fruit and vegetables grow 3. Smoothie ingredients tasting 4. Smoothie making
Focus Themes: Significance- the importance of making healthy choices/ not everyone has enough fruit and vegetables in their diet or they may not have access to them.		
Cooking and Nutrition	Prepare dishes using simple techniques such as cutting, mixing, grating and stirring. To give example of fruits and vegetables and to know we should eat 5 a day.	<u>Vocabulary:</u> Fruit Peel Chop Slice Mix <u>Key Facts/ Concepts:</u> Apples, oranges, strawberries and bananas are fruit.

		<p>Potatoes, broccoli, onions and carrots are vegetables. You should eat 5 portions of fruit and vegetables a day. We can follow a recipe to make a smoothie.</p>
<p>Year 3 Spring 2 – Eating seasonally</p>		<p><u>Lessons:</u></p> <ol style="list-style-type: none"> 1. Where in the world? 2. British seasonal foods 3. Rainbow food 4. Making tarts
<p>Focus Themes: Conflict-some people disagree with eating meat and catching fish</p>		
<p>Cooking and Nutrition</p>	<p>Know how to prepare and cook a variety of savoury dishes safely and hygienically including, where appropriate, the use of a heat source.</p> <p>Know that food is grown (such as tomatoes, wheat and potatoes), reared (such as pigs, chickens and cattle) and caught (such as fish) in the UK, Europe and wider world.</p>	<p><u>Vocabulary:</u> Ingredients Imported Exported Climate Grow rear</p> <p><u>Key Facts/ Concepts:</u> Fruits and vegetables are full of vitamins, minerals and fibre. These nutrients help us to grow and keep us healthy. Cod can come from Iceland and watermelons can come from South Africa. Tomatoes, wheat and potatoes are grown. Pigs, chickens and cattle are reared.</p>

		Fish is caught.
Year 5 Autumn 2 – What could be healthier?		<u>Lessons:</u> <ol style="list-style-type: none"> 1. From farm to fork 2. What does healthy look like 3. Adapting and improving a recipe 4. Mamma Mia! What a tasty, healthy Bolognese!
Focus Themes: Significance- why making healthy choices can make a significant difference to our lives.		
Cooking and Nutrition	<p>Know that to be active and healthy, food is needed to provide energy for the body.</p> <p>Prepare and cook a range of predominately savoury dishes using a range of cooking techniques.</p>	<u>Vocabulary:</u> Beef, crops, cross-contamination, welfare, research, nutrition, processing and waste <p><u>Key Facts/ Concepts:</u> A balanced diet consists of measured amounts of different foods to keep us healthy. Eating the right mix of nutrients will help our bodies to grow and develop. Many foods have labels which tell you the amount of each nutrient it has. It is important to avoid cross contamination to keep safe. In farming, it is important that the animals are cared for properly. There are ethical rules which ensure that the animals receive a good level of welfare. The farm to fork process..</p> <ol style="list-style-type: none"> 1. Food production 2. Processing

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