



## Highfield Long Term Plan: Design Technology



### Highfield Vision for Design Technology

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.

(D&T Association: 2024)

We aim to provide all children with an ambitious D&T education that is equitable, inspiring, rigorous and practical and relevant in our rapidly changing world. We recognise that D&T helps to shape the citizens of the future, therefore we aim to build an awareness of the impact of Design and Technology on our lives and encourage children to become resourceful, enterprising citizens who will have the skills to contribute to future design advancements.

We empower our children to use creativity and imagination and 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.

The Highfield D&T curriculum encourages the children to take risks, be innovative and creative and independent thinkers who have an appreciation for the product design cycle through ideation, creation and evaluation. This is in addition to enabling them to acquire a procedural and technical understanding. In short, throughout our curriculum, D&T projects provide children with opportunities to research, represent their ideas, explore and investigate, develop their ideas, make a product and evaluate their work.

We intend for all children to acquire appropriate subject knowledge, skills and understanding as set out in the National Curriculum, all underpinned by our key drivers of Safeguarding, Reading, RED (Respect, Equality & Diversity) and Enrichment. Using guidance from the Design & Technology Association (including the Design and Technology Progression Framework document produced by the DATA National Curriculum Expert Group), our curriculum is planned and sequenced so that new knowledge and skills are built upon previous learning with recognised and clearly defined end points.

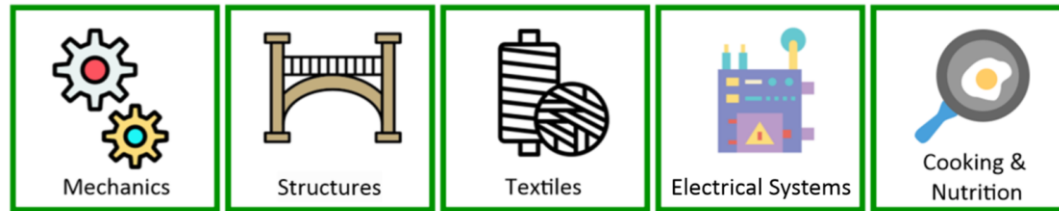
It is our aim to promote strong cross curricular links with other subjects, such as Mathematics, Science, Computing and Art. We want D&T to prepare our children, to give them the opportunities, responsibilities and experiences they need to be successful in later life.



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## D&T Concepts

Highfield's D&T curriculum enables children to respond to design briefs and scenarios that respond to the needs of others whilst developing their skills and knowledge within five key concepts.



The D&T key concepts are the skills and knowledge essential to pupils achieving and exceeding the expected standard. These key concepts are subject specific and build progressively as pupils move through the school. When pupils encounter a key concept, they will revisit other topics where they learnt about the same concept to enable them to make connections between different learning and build the schema they need.

The technical knowledge will be specific to the key concepts outlined below.

**Mechanics:** Pupils will gain an understanding of how different mechanisms work, evaluate products with different mechanisms and design and make working products to fit a design brief. They will gain the technical knowledge needed to make different mechanisms work effectively.

**Textiles:** Pupils will gain the technical knowledge needed to work with textiles such as stitching, sewing, and threading. They will study textile designs and how to make products which are practical as well as stylish and then apply this learning to their own designs and products.

**Structures:** Pupils will learn the technical knowledge used by designers to make structures which are strong and stable. They will learn and apply strengthening techniques, explore the benefits of different shapes and materials and apply this to their own designs and products.

**Electrical Systems:** Pupils will learn how electronics and digital technologies are used when designing and creating products. They will gain the technical knowledge needed to programme devices and to make use of electric circuits including switches to power and control a product.

**Cooking and Nutrition:** Pupils will learn where food comes from and how nutritional information can be used to plan a balanced and healthy diet. They will also learn techniques needed to prepare and cook food safely and design dishes and meals for specific purposes.

D&T concepts are mapped out across the Highfield D&T Curriculum in this document and the medium-term plan. The key knowledge taught is mapped on the medium-term plan.



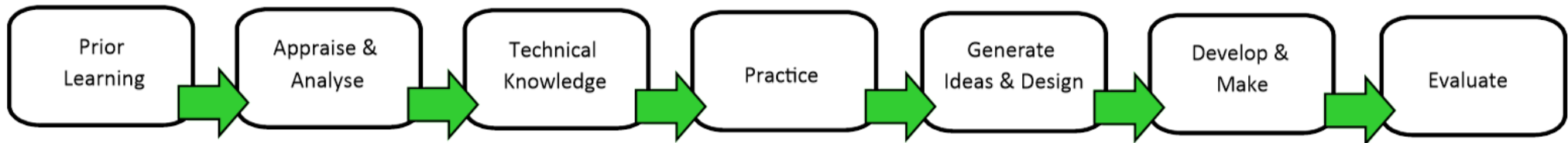
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## D&T Curriculum

The Design & Technology National Curriculum outlines three main stages of the design process: design, make and evaluate. Cooking and nutrition has a separate section, with a focus on specific principles, skills and techniques in food, including where food comes from, diet and seasonality. In addition, a range of skills is taught ensuring that children are aware of health and safety issues related to the tasks undertaken.

Highfield's coherently planned scheme of work has a clear progression of skills and knowledge allowing pupils to become increasingly competent in designing, making and evaluating products within the five concepts above. They will investigate how design has been used to solve problems and create products and structures in the real world, including the techniques used by designers to improve looks and functionality. They will have the opportunity to design their own products in response to design briefs, learn and experiment with a range of techniques before making and evaluating products.

Each unit of work will be based on the following teaching sequence.





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## Assessment

### Why do we Assess?

The impact of our Design and Technology curriculum is for the children to have a clear enjoyment and confidence in design and technology that they will then apply to other areas of the curriculum. Children will ultimately know more, remember more and understand more about Design Technology, demonstrating this knowledge when using tools or skills in other areas of the curriculum and in opportunities out of school. The skills and attributes they develop will benefit them beyond school and into adulthood: the ability to use time efficiently, work with others productively, show initiative, independence, resilience and manage risks effectively will ensure well-rounded citizens who will make a difference in the wider world.

Assessment in D&T helps us to understand and track our progress in learning about the five key concepts: mechanics, structures, textiles, electrical systems, cooking and nutrition. It is important because it shows what we have learned and what we still need to work on. There are different types of assessments that help us in different ways.

### Pre and Post Topic Assessments

Before starting learning about a new D&T topic, children do a pre-topic assessment. This is an activity that helps the teacher understand what the children already know about the topic and links to previous topics, technical knowledge, concepts and skills. This allows the teacher to be responsive to the pupils' needs when planning the learning. After they have finished learning about a D&T topic, they do a post-topic assessment. This is another activity that helps the children and the teacher see how much the pupils have learned. However, this is not the only method of assessing understanding that we use at Highfield, for example, opportunities for retrieval are given to elicit previous learning before lessons.

### Formative Assessment

During D&T lessons, the teacher continually formatively assesses pupils' learning. Formative assessment is the day-to-day ongoing assessment, sometimes referred to as assessment for learning. This forms a detailed picture of children's knowledge and understanding against specific learning outcomes. Most simply, it means providing teaching that is adaptive to pupils' needs and using evidence about learning to adjust instruction to ensure that learning moves forward. This means they are checking on how children are doing while they are learning. It is responsive and feedback given in the moment.

### Summative Assessment

In-school Summative Assessment provides information on a child's achievements over time. These assessments allow teachers and Senior Leaders to monitor the performance and progress of pupils over time. They help to monitor pupil cohorts / vulnerable groups and identify where interventions may be required to ensure pupils make progress. At Highfield, whole school D&T summative assessments are carried out bi-annually: once at the end of the Autumn Term and then again in the Summer Term.



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## D&T Assessment Calendar:

- Bi-annual data submission of D&T attainment (November and May)
- Termly Audit of the D&T Curriculum coverage
- January & July: Subject scrutiny and monitoring of action plan (including pupil voice)
- Pre and post topic assessment

## Enrichment

Enrichment experiences play a crucial role in helping children learn abstract concepts by providing them with opportunities to explore, engage, and make connections between theoretical knowledge and real-world applications. For this reason 'Enrichment' is one of the four key drivers of the Highfield Curriculum. The 'Wider Curriculum' or 'Enrichment opportunities' are mapped out in the Wider Curriculum document.

At Highfield, learning in D&T is enriched by the following experiences:

Reception. Making gingerbread men

Year 1. Model village in school

Year 2. Activities on our Scarborough trip

Year 3. Sponge cakes and ratatouille

Year 4. Allotment and activities at Robin Hood's Bay

















Year 5. Bridges Workshop, in school.

Year 6. Sculpture Workshop, in school; Ted Varley - Engineer talk (Routes into engineering, design processes for prosthetic hands) in school.

Enrichment experiences provide a dynamic and interactive approach to learning in design and technology, fostering a deeper understanding of abstract concepts by connecting them to real-world situations, encouraging critical thinking, and promoting creativity and collaboration.











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			Design & Technology Concepts				
D&T Topic ( <i>abbreviated</i> )			 Mechanics	 Structures	 Textiles	 Electrical Systems	 Cooking & Nutrition
Reception	Autumn	Story of the Gingerbread Man					
	Spring	Noah's Ark Animals and Boats Spaceships/Light Sources					
	Summer	Growth and healthy living Minibeasts					
Year 1	Autumn	<b>Toys</b> (Flaps & Levers Calendar) <b>Healthy Eating</b> (Biscuits)					
	Spring	<b>Houses and Homes</b> (Model Village)					














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Year 2	Summer	<b>Scarborough</b> (Bucket & Spade Decoration, Sandwiches)					
	Autumn	<b>Healthy Eating</b> (Fruit smoothies)					
	Spring	<b>Transport</b> (Moving Vehicles – Wheels & Axles)					
	Summer	<b>1066</b> (Castle Drawbridge – Winding Mechanisms) Yorkshire Highfield Rascal Scones					
Year 3	Autumn	<b>Victorians</b> (Christmas Felt Decorations, Victoria Sponge Cake)					
	Spring	<b>Ancient Egypt</b> (Egyptian Sarcophagus’ – Pneumatics)					
	Summer	<b>Butterfly Garden</b> (Scented Drawer Freshener) <b>Healthy Eating</b> (Ratatouille)					










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Year 4	Autumn	<b>Robin Hood's Bay</b> (Working Lighthouse – Electrical Systems) <b>Christmas</b> (Spicy Biscuits)					
	Spring	<b>Vikings, Anglo-Saxons &amp; Scots</b> (Wooden Siege Machine – lever mechanism)					
	Summer	<b>Allotment, Harvesting Crops</b> (3D Net Packaging & Potato Salad)					
Year 5	Autumn	<b>Christmas</b> (Flaps & Levers Christmas Cards)					
	Spring	<b>Rivers</b> (Bridges – Structure) <b>Healthy Eating</b> (Savoury Spinach & Cheese Muffins) <b>Swing boat</b> (Electrical Systems)					
	Summer	<b>Ancient Greece</b> (Tzatziki & Flatbread) <b>Fairground Wheels</b> (Pulleys & Wheels)					





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Year 6	Autumn	<b>Life for Children in Tudor Times</b> (Tudor Sampler Work Calendar) <b>Mountains</b> (Volcano Automata)					
	Spring	<b>Barbara Hepworth</b> (Sculpture) <b>Pictures at an Exhibition</b> (Musical Instruments) <b>Healthy Eating</b> (Lasagne)					
	Summer	<b>Marrick</b> (Slippers) <b>Healthy Eating</b> (Quiche)					




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Knowledge and skills sequencing		DESIGN AND TECHNOLOGY					
	EYFS	Y1	Y2	Y3	Y4	Y5	Y6
 <p><b>Mechanics</b></p> <p><b>Appraise and Analyse</b></p> <p><b>Technical Knowledge</b></p> <p><b>Practice</b></p> <p><b>Generate Ideas and Design</b></p> <p><b>Develop &amp; Make</b></p> <p><b>Evaluate</b></p>	<p>In EYFS pupils are taught Design Technology through the strands Expressive Arts and Design and Physical Development.</p> <p>Throughout the year pupils will be taught: Mechanisms, Structures, Textiles and Cooking and Nutrition.</p>	<p>I can explore and evaluate mechanisms in existing products (moving story book). I can recognise moving objects</p> <p>I can identify how mechanisms work in existing products e.g. sliders/levers.</p> <p>I can make prototype mechanisms.</p> <p>I can design a purposeful, functional, and appealing calendar using pictures and labels and communicate my ideas through talking and drawing.</p> <p>I can create a product which includes sliders and levers, selecting from a range of tools and equipment.</p> <p>I can talk about my own and other's work, in simple terms and explain how it works. I can discuss what went well and how I could improve my product with my teacher and write a simple evaluation.</p>	<p>I can investigate, disassemble, and evaluate mechanisms in existing products (toy cars) I can identify and list a range of products that move and identify what mechanism makes a vehicle move forward.</p> <p>I can identify how mechanisms work in existing products e.g. winding mechanisms and wheels/axles and distinguish between fixed and freely moving axles.</p> <p>I can make prototype mechanism.</p> <p>I can design a purposeful, functional, and appealing car based on design criteria. I can generate ideas and recognise characteristics of familiar products. I can produce simple annotated designs.</p> <p>I can create a product which includes wheels and axels and winding mechanisms.</p> <p>I can talk about my own and other's work, in simple terms and explain how it works. I can write what went well and how I</p>	<p>I can appraise and analyse mechanisms in existing products (pneumatic toys) and understand how key events and individuals in D&amp;T have shaped the world.</p> <p>I can identify how mechanisms work in existing products e.g. pneumatic systems and describe its stages. I understand that pneumatic systems force air over a distance to create movement.</p> <p>I can make prototype mechanisms.</p> <p>I can use research to generate a design, based on experience of working with materials and components. I can generate, develop, model, and communicate my ideas through discussion, annotated 3D drawings, cross sectional diagrams and discussion.</p> <p>I can create a product by selecting the appropriate tools, techniques, and materials (according to their characteristics), explaining my choices.</p> <p>I can evaluate my product against my own design</p>	<p>I can analyse a siege machine (trebuchet) and identify how they work. I can start to understand that types of motion can be converted from one type to another using mechanisms. I understand how key events and individuals in D&amp;T have shaped the world.</p> <p>I can identify and describe how a chassis and launch mechanism works and describe its stages. I can use lever and linkage mechanisms.</p> <p>I can make prototype mechanisms.</p> <p>I can use research to generate a design, based on experience of working with materials and components. I can generate, develop, model, and communicate my ideas through discussion, annotated 3D drawings, cross sectional diagrams and written descriptions.</p> <p>I can create a product by selecting the appropriate tools, techniques, and materials (according to their characteristics), explaining my choices.</p>	<p>I understand how key events and individuals in D&amp;T have shaped the world. I can appraise and analyse a range of existing products – fairground toys.</p> <p>I can show my understanding of how axle, pulleys, and wheels work and understand that types of motion can be converted from one type to another using mechanisms. I can distinguish between fixed and loose pivots.</p> <p>I can use a range of materials, tools, and techniques to create a prototype.</p> <p>I can generate innovative ideas through research and discussion with peers to develop a design brief and criteria for a design specification. I can design a functional, purposeful product for the intended user that is fit for purpose based on a simple design specification.</p> <p>I can select from and use a range of appropriate materials, tools, components to accurately measure and combine</p>	<p>I understand how key events and individuals in D&amp;T have shaped the world. I can appraise and analyse a range of existing products – automata toys.</p> <p>I can show my understanding of how cams and followers work and describe the different motions they produce: linear, reciprocating, rotary, oscillating.</p> <p>I can use a range of materials, tools and techniques to create a prototype.</p> <p>I can generate designs by collecting and using information; take users' views into account and produce step-by-step plans. I can communicate alternative ideas using words, labelled sketches and models showing that I am aware of constraints.</p> <p>I can formulate a step-by-step plan to guide making, listing tools, equipment, materials and components. I can work with a variety of materials, components, and techniques with some accuracy to paying attention to quality of</p>



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 <p>Mechanics</p>			<p>could improve my product.</p>	<p>criteria and consider the views of others on how to improve my work.</p>	<p>I can evaluate my product against my own design criterion. I can identify where evaluation of the design and make process has led to improvements.</p>	<p>materials. I can consider strengthening techniques, movement using an axle, pulley and gear and how to effectively join the materials.</p> <p>I can compare the final product to the original design specification and record the evaluations. I can test my product and critically evaluate the quality of the design, manufacture, functionality and fitness for purpose. I can consider the views of others to improve their work.</p>	<p>finish and to function. I can choose correct materials for a specific task and select and work with a variety of tools (hand drill, vice, bench hook, G clamp, junior hacksaw) and equipment. I can use finishing and decorative techniques suitable for the product they are designing and making.</p> <p>I can recognise what I have done well as my work progresses and make alterations if necessary – mid make. I can Identify what worked well and what can be improved. I can compare the final product to the original design specification and record the evaluations. I can test my product and critically evaluate the quality of the design, manufacture, functionality and fitness for purpose. I can consider the views of others to improve their work.</p>
<p>Appraise and Analyse</p>							
<p>Technical Knowledge</p>							
<p>Practice</p>							
<p>Generate Ideas and Design</p>							
<p>Develop &amp; Make</p>							
<p>Evaluate</p>							




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Knowledge and skills sequencing		DESIGN AND TECHNOLOGY					
	EYFS	Y1	Y2	Y3	Y4	Y5	Y6
 <p>Structures</p> <p>Appraise and Analyse</p> <p>Technical Knowledge</p> <p>Practice</p> <p>Generate Ideas and Design</p> <p>Develop &amp; Make</p> <p>Evaluate</p>	<p>In EYFS pupils are taught Design Technology through the strands Expressive Arts and Design and Physical Development.</p> <p>Throughout the year pupils will be taught: Mechanisms, Structures, Textiles and Cooking and Nutrition.</p>	<p>I can explore and evaluate the differences within structures. I understand the purpose of structures and can explore the features of structures. I can compare the stability of different shapes.</p> <p>I can use my knowledge of a range of materials to help me combine them to create a strong and stable structure.</p> <p>I can practise making stable structures using a range of materials.</p> <p>I can design a structure using pictures and words based on a design criterion.</p> <p>I can make and join a stable structure (building).</p> <p>I can talk about my own and other's work, in simple terms and explain how it works. I can discuss what went well and how I could improve my product with my teacher and write a simple evaluation.</p>			<p>I can appraise and analyse how a structure is made through the exploration of existing products and consider the properties of materials. I understand how key events and individuals in D&amp;T have shaped the world.</p> <p>I can identify how a net is created using shapes and can investigate different nets.</p> <p>I can practise making stable structures using nets to make packaging.</p> <p>I can design a structure (packaging) using my knowledge of materials and considering the unique selling points and target audience. I can use annotated sketches and words to communicate my ideas.</p> <p>I can order the main stages of making and select the appropriate tools to measure, mark out, cut, score, shape and combine with some accuracy. I can explain my choice of materials according to functional properties and aesthetic qualities. I can make a net of a 3D shape using tools</p>	<p>I can analyse structural designs in terms of functionality, aesthetics and materials. I understand how key events and individuals in D&amp;T have shaped the world.</p> <p>I understand different methods of strengthening by creating a frame structure, using triangulation. I understand that by creating triangles it will keep its shape as well as making it stronger.</p> <p>I can practise a range of structural designs to create bridges.</p> <p>I can generate ideas and design a structure demonstrating my design from different perspectives. I can generate, develop, model and communicate my ideas through discussion (group work).</p> <p>I can use a range of appropriate tools competently to join and combine a range of materials competently. I can use tools and equipment to perform practical tasks.</p>	<p>I can analyse structural designs in terms of functionality, aesthetics and materials. I understand how key events and individuals in D&amp;T have shaped the world.</p> <p>I can analyse and evaluate a range of musical instruments in terms of functionality, aesthetics, materials, purpose and the user.</p> <p>I understand different methods of strengthening linked to various materials: card, paper and wood.</p> <p>I can write a detailed set of instructions of how to make my instrument. Including how materials and tools should be used.</p> <p>I can practise a range of structural designs to create my product, ensuring it is fit for purpose.</p> <p>I can use research including web-based resources to develop a design specification for a product. I can develop a simple design specification to guide the development of my ideas taking account of constraints including</p>



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 <p>Structures</p>					<p>and equipment with some accuracy to make the box.</p> <p>I can test and evaluate my product against my own design criteria and identify the strengths and weaknesses in my work. I can evaluate my ideas and product against my own design criteria and identify strengths and areas for improvement in my work.</p>	<p>I can evaluate a product on appearance and function against an original design criterion and justify decisions made in the design.</p>	<p>time, resources, and cost. I can generate and develop innovative ideas and share and clarify these through discussion. I can communicate alternative ideas using words, labelled sketches showing that I am aware of constraints.</p> <p>I can work with a variety of materials, components and techniques with some accuracy to paying attention to quality of finish and to function and choose correct materials for a specific task. I can Select and work with a variety of tools (hand drill, vice, bench hook, G clamp, junior hacksaw) and equipment. I can use finishing and decorative techniques suitable for the product they are designing and making.</p> <p>I can recognise what I have done well as my work progresses and make alterations if necessary – mid make. I can compare the final product to the original design specification and identify what worked well and what can be improved. I can consider the views of others to improve my work.</p>
<p>Appraise and Analyse</p>							
<p>Technical Knowledge</p>							
<p>Practice</p>							
<p>Generate Ideas and Design</p>							
<p>Develop &amp; Make</p>							
<p>Evaluate</p>							



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Knowledge and skills sequencing		DESIGN AND TECHNOLOGY					
	EYFS	Y1	Y2	Y3	Y4	Y5	Y6
 <p>Textiles</p> <p>Appraise and Analyse</p> <p>Technical Knowledge</p> <p>Practice</p> <p>Generate Ideas and Design</p> <p>Develop &amp; Make</p> <p>Evaluate</p>	<p>In EYFS pupils are taught Design Technology through the strands Expressive Arts and Design and Physical Development.</p> <p>Throughout the year pupils will be taught: Mechanisms, Structures, Textiles and Cooking and Nutrition.</p>	<p>I can describe what textiles are and where you can find them around the house.</p> <p>I can identify the best techniques and use a basic running stitch to join felt.</p> <p>I can practise the basic sewing techniques: threading, fastening, running stitch, starting and finishing.</p> <p>I can design a product using pictures and words and identify the tools and materials I will need.</p> <p>I can use a template and a range of tools and materials to create a finished product.</p> <p>I can talk about my own and other's work, in simple terms and explain how it works. I can discuss what went well and how I could improve my product with my teacher.</p>		<p>I can list different types of natural and manmade textiles and describe both the functional and aesthetic properties.</p> <p>I can identify the best techniques and use cross stitch to join felt and add embellishments.</p> <p>I can practise skills identified to develop a design of my own.</p> <p>I can design, develop, and model ideas for a product to sew and communicate my ideas through discussion, annotated sketches and diagrams.</p> <p>I can think ahead about the order of my work, select tools needed for a given task and give reasons for my choices. Select from and use a range of tools and equipment (according to their characteristics) to perform a practical task. I know how to join two pieces of fabric together. I can use a template, needle, thread and felt.</p> <p>I can evaluate my ideas and product against their own design criteria and consider the views of others to improve their</p>			<p>I can identify the names of combined fabrics (e.g. polycotton) and understand the difference between synthetic v natural textiles.</p> <p>I can identify the best techniques and use a variety of stitches, including blanket stitch, to join components together and add embellishments. I understand how fabrics can be strengthened, stiffened and reinforced with corriflute</p> <p>I can practise skills identified to develop a design of my own.</p> <p>I can use research including web-based resources to develop a design specification for a product. I can develop a simple design specification to guide the development of my ideas taking account of constraints including time, resources, and cost. I can generate and develop innovative ideas and share and clarify these through discussion. I can communicate alternative ideas using words, labelled sketches showing that I am aware of constraints.</p>



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 <p>Textiles</p>				<p>work. I can write a description and evaluate what went well/what was tricky/ how to improve my sewing.</p>			<p>I can produce a 3D textile product from a combination of accurately made pattern pieces, fabric shapes and different fabrics. I can select from and use a range of tools and equipment and use a wide range of materials according to their characteristics. I understand the need for patterns and seam allowances and can pay attention to quality of finish.</p> <p>I can recognise what I have done well as my work progresses and make alterations if necessary – mid make. I can continually evaluate and modify the working features of the slippers to match the initial design. I can critically evaluate the product against my design specification, intended user and purpose, identifying strengths and areas for development. I can test the product to demonstrate the effectiveness for the intended user.</p>
<p>Appraise and Analyse</p>							
<p>Technical Knowledge</p>							
<p>Practice</p>							
<p>Generate Ideas and Design</p>							
<p>Develop &amp; Make</p>							
<p>Evaluate</p>							



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Knowledge and skills sequencing		DESIGN AND TECHNOLOGY					
	EYFS	Y1	Y2	Y3	Y4	Y5	Y6
 <p>Electrical Systems</p> <p>Appraise and Analyse</p> <p>Technical Knowledge</p> <p>Practice</p> <p>Generate Ideas and Design</p> <p>Develop &amp; Make</p> <p>Evaluate</p>					<p>I can appraise and analyse the features of lighthouses.</p> <p>I can use my scientific knowledge to consider the type of circuit my product needs. I can use my computer coding knowledge to program a micro-bit and what code will be required to enhance the way the product works.</p> <p>I can practice making my micro-bit flash when connected to the circuit I have created.</p> <p>I can design a product based on its required function considering how I would include electronics.</p> <p>I can create a product by selecting the appropriate tools, techniques, and materials (according to their characteristics), explaining my choices.</p> <p>I can evaluate my product against the design requirements.</p>	<p>I can appraise and analyse the features of a swing boat.</p> <p>I can use my computer coding knowledge to program a micro bit, to make a simple servos control board propel a wheel to make a swing boat move. I can follow step by step instructions, to make a motor work.</p> <p>I can practice making my product, throughout the make process, evaluating my progress along the way.</p> <p>I can follow a design plan based on its required function.</p> <p>I can use micro bit to program a simple servos control board and use a template and step by step instructions to make a swing boat.</p> <p>I can evaluate my product against the design requirements and identify any improvements that could be made.</p>	





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Knowledge and skills sequencing		DESIGN AND TECHNOLOGY					
	EYFS	Y1	Y2	Y3	Y4	Y5	Y6
 <p><b>Cooking &amp; Nutrition</b></p> <p>Appraise and Analyse</p> <p>Technical Knowledge</p> <p>Practice</p> <p>Generate Ideas and Design</p> <p>Develop &amp; Make</p> <p>Evaluate</p>	<p>In EYFS pupils are taught Design Technology through the strands Expressive Arts and Design and Physical Development.</p> <p>Throughout the year pupils will be taught: Mechanisms, Structures, Textiles and Cooking and Nutrition.</p>	<p>I can identify where our fruit and vegetables come from to make a healthy product.</p> <p>I can identify different techniques used to prepare and create a healthy product.</p> <p>I can practise a range of different techniques to prepare and create a healthy product – e.g. bridge knife (soft foods), arranging ingredients/toppings, spreading with a table knife).</p> <p>I can design a product using pictures and words.</p> <p>I can use a range of technical knowledge and skills to create a finished product.</p> <p>I can evaluate my healthy product in terms of design and the taste.</p>	<p>I can identify where our fruit and vegetables come from and how they are packaged (tinned/fresh/frozen) to make a healthy product.</p> <p>I can identify different techniques used to prepare and create a healthy product.</p> <p>I can practise a range of different techniques to prepare and create a healthy product (e.g. mashing, chopping, blending, measuring, beating).</p> <p>I can design a product using pictures, words, and labels.</p> <p>I can use a range of technical knowledge and skills to create a finished product.</p> <p>I can evaluate my healthy product in terms of design, taste and visual appeal.</p>	<p>I can identify seasonal ingredients used in an existing product. I can identify what makes a healthy diet.</p> <p>I can identify techniques used and to write a method to create an existing product.</p> <p>I can practise a range of different techniques to prepare and create a healthy product (e.g. peeling, chopping/slicing using the claw knife technique, crushing, sweating, sieving, folding, cracking, creaming, pinching).</p> <p>I can design a seasonal dish using pictures, words, and labels.</p> <p>I can use a wider range of technical skills and tools to create a finished product.</p> <p>I can evaluate my finished product against my original design and a design criterion.</p>	<p>I can identify seasonal ingredients used in an existing product. Using the Eatwell plate, I can explain how a healthy diet is made up from a variety and balance of different foods.</p> <p>I can identify techniques used and to write a method to create an existing product.</p> <p>I can practise a range of different techniques to prepare and create a seasonal product (e.g. using measuring spoons and cups, balance scales, sieving flour, adding liquid to flour, shaping and rolling dough, using a cutter to make biscuit shapes and decorating using icing, boiling, beating, garnishing, seasoning).</p> <p>I can design a seasonal dish using exploded diagrams.</p> <p>I can use a wider range of technical skills and tools to create a finished product.</p> <p>I can evaluate my finished product against my</p>	<p>I can describe the 5 food groups, providing multiple examples of foods for each of the categories. I can describe with clear examples, what constitutes a balanced diet.</p> <p>I can identify how the different cooking techniques can be used to create a range of healthy and balanced dishes.</p> <p>I can practise a range of different techniques to prepare and create a healthy product (e.g. peeling, chopping/slicing using the bridge and claw knife technique, glazing, tearing, grating, using an oven, squeezing)</p> <p>I can design a seasonal dish using exploded diagrams.</p> <p>I can use a wider range of technical skills and tools to create a finished product.</p> <p>I can evaluate my finished product against my original design and a design criterion.</p>	<p>I can confidently describe the purpose of the Eatwell plate. I can explain the 4C's for food hygiene; safety in the cooking room; correct use of an oven; safe handling of meat and knife safety and safe cutting techniques.</p> <p>I can identify how the different cooking techniques can be used to create a range of healthy and balanced dishes.</p> <p>I can practise a range of different techniques to prepare and create a healthy product (e.g. Use a combination of claw and bridge knife techniques, grate soft foods, use a jug to measure liquids, handle and fold short crust pastry, glaze, tear herbs, arrange ingredients, blind bake, fry, beat ingredients together, season to taste, using an oven.</p> <p>I can design a seasonal dish using exploded diagrams. I can adapt a recipe considering the requirements of the consumer e.g. vegan/vegetarian/allergies.</p>



## Highfield Long Term Plan: Design Technology

					original design and a design criterion.		I can use a wider range of technical skills and tools to create a finished product.  I can evaluate my finished product against my original design and a design criterion.
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