



**Subject:** Design and Technology

**Curriculum Provision Statement**

*Inspiring Excellence Our days are always filled with MAGIC*

## Context

At Keir Hardie, our D&T curriculum is carefully crafted to address the challenges within our unique school environment while celebrating our diverse community. It serves as a bridge to fill the gaps in foundational knowledge and skills created by the pandemic and offers inclusive opportunities for all students. Our D&T projects focus on user-centred design, purpose-driven creations, functionality, informed design decisions, innovation, and authenticity. By doing so, we empower our students, celebrate diversity, and equip them with vital skills for a rapidly changing world.

Intent	Implementation	Impact
<p>The intent of the Design and Technology subject for primary pupils at our school is to cultivate a well-rounded child, aligning with our dedication to their holistic development. Our approach centres on fostering the mastery of practical, technical, and creative skills that empower students to confidently perform everyday tasks and excel in an increasingly tech-driven world.</p> <p>Our primary objective is to instil the MAGIC Habits framework within our pupils, guiding them to embody these qualities throughout their educational journey. We want our students to be consistently Motivated, demonstrating unwavering enthusiasm and passion for their learning. They should approach challenges with a positive Attitude, emphasising optimism and perseverance. When obstacles arise, we encourage them to display Gumption, drawing upon their resourcefulness and resilience to overcome difficulties. We also prioritise fostering Independent thinking, empowering our pupils to think critically and</p>	<p>The implementation of our D&amp;T curriculum at Keir Hardie is tailored to align with national curriculum objectives, centring on the fundamental principles of design, making, evaluation, and technical knowledge. The curriculum is structured into six distinct strands, specifically textiles, mechanisms, structures, electrical systems, cooking and nutrition, and mechanical systems. This approach ensures a comprehensive education in design and technology for our students.</p> <p>Each academic year, every year group will undertake three D&amp;T units, following a structured iterative cycle. This guarantees that students progressively develop their skills and knowledge across each of the D&amp;T strands as they progress through their educational journey.</p> <p>To promote healthy choices and emphasise the significance of a varied diet, each year group will</p>	<p>The structured D&amp;T curriculum will empower students to significantly advance their design, crafting, and evaluative skills. Progression in their abilities will be evident as they move through different year groups.</p> <p>The inclusion of cooking and nutrition topics will equip students to make informed and healthier food choices. They will gain practical cooking skills and a deeper understanding of balanced diets.</p> <p>Collaborations with organisations such as the Institute of Imagination will nurture students' creativity and a strong sense of social responsibility, leading to a greater appreciation of sustainability and recycling.</p> <p>The integration of D&amp;T with other subjects will enrich students' learning experiences, helping them understand vital technical knowledge through</p>

<p>make informed decisions. Effective Communication is another essential skill we emphasise, ensuring that our pupils can confidently express their ideas and collaborate effectively with others.</p> <p>Our D&amp;T curriculum is strategically designed to prepare our students for life in Modern Britain and the 21st-century world. We aim to equip them with the skills and attributes necessary to thrive in a rapidly changing society. Through D&amp;T, we promote the development of resilience, curiosity, critical thinking, problem-solving abilities, teamwork, creativity, and a passion for lifelong learning. Engaging in hands-on projects and design challenges, our pupils not only acquire practical skills but also nurture their ability to think independently, innovate, and adapt to new situations. Our D&amp;T program aims to instil the confidence and competence required for the next stages of their education and beyond. In summary, our D&amp;T subject intent is two fold: we empower our primary pupils with the MAGIC Habits, ensuring they are Motivated, exhibit a positive Attitude, demonstrate Gumption, possess Independent thinking skills, and can effectively Communicate. Simultaneously, we aim to prepare them for the future by fostering resilience, curiosity, critical thinking, problem-solving abilities, teamwork, creativity, and a lifelong love for learning. This holistic approach ensures our students are well-prepared for success in a technologically-driven world and equipped to excel in an ever-changing society.</p>	<p>explore one cooking and nutrition topic tailored to our school context. Our aim is to empower students with the knowledge and skills needed to make informed dietary choices and to generate ideas for healthy snacks. To achieve this, we collaborate with external agencies, such as Kokura Workshops, offering children opportunities to work with experts in the field of baking.</p> <p>A key aspect of our curriculum involves instilling a sense of social responsibility in our students by collaborating with organisations like the Institute of Imagination. Workshops with the theme of 'save, make, and reinvent' encourage creative thinking, resource reuse, and an understanding of sustainability. These projects also contribute to a deeper understanding of structures and electrical systems, integrating these concepts into the broader context of the workshops.</p> <p>We actively encourage our students to draw connections between D&amp;T and other curriculum areas. For instance, in Year 4, when designing torch lights, children learn about electricity and circuits in their science lessons, enabling them to apply scientific knowledge to their D&amp;T projects.</p> <p>To support our teachers, the school has subscribed to the D&amp;T Association, granting access to a wealth of resources. This resource pool aids teachers in enhancing their Continuous Professional Development and acquiring materials to support the delivery of each D&amp;T project.</p> <p>Comprehensive learning journeys are provided to teachers, outlining the expectations of each D&amp;T project. This further supports our teachers in effectively planning and delivering the curriculum, ensuring that students receive a high-quality D&amp;T education.</p> <p>A noteworthy feature of our D&amp;T curriculum is the</p>	<p>practical applications.</p> <p>Our curriculum will emphasise the development of 'magic habits,' such as motivation, a positive attitude, effective communication, independent thinking, and gumption. These habits will promote holistic personal growth, encourage resilience, and develop critical thinking skills.</p> <p>Our proactive approach to supporting underperforming students will ensure that all students, regardless of their starting point, can excel and reach their full potential. The D&amp;T curriculum will equip them with the skills they need to thrive in a rapidly changing, modern Britain where adaptability, problem-solving, and critical thinking are highly valued.</p> <p>These comprehensive educational experiences are designed to achieve outcomes that will make students feel a sense of achievement and pride. They will cultivate resilience in the face of challenges, enhance students' fluency in key terminologies, and provide a solid grasp of technical knowledge. In sum, our D&amp;T curriculum will empower young adults to not only be technically proficient but also well-rounded individuals who are prepared for the complexities of modern life in Britain. Furthermore, our curriculum will inspire a generation of passionate designers and engineers, driven by the skills, knowledge, and creativity it provides</p>
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	<p>incorporation of a 3D printer. This technology empowers our pupils to engage in computer-aided design and produce prototypes of their designs. It offers an alternative and innovative method for students to communicate their design ideas and enhances their creativity and problem-solving skills.</p> <p>In summary, our D&amp;T curriculum is designed to offer a well-rounded and enriching educational experience, ensuring that students meet national curriculum objectives while fostering creativity, practical skills, and a sense of social responsibility. The integration of external expertise, cross-curricular connections, and access to valuable resources underpins our commitment to delivering an exceptional D&amp;T education. Additionally, for students with Special Educational Needs and Disabilities (SEND), we facilitate access to the curriculum through adaptive resources, visual aids, tactile materials, targeted support, and smaller focus groups, making the hands-on approach of our D&amp;T curriculum accessible to all.</p>	
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## Subject Coverage

	Autumn	Spring	Summer
EYFS	<p><b><u>Nursery</u></b></p> <p><b>Autumn term</b>  <u>Ourselves:</u>  textiles and materials - creating scenes and pictures using various materials to represent ourselves and our interests.</p> <p><u>Festivals and celebration:</u>  Woodwork and cooking</p> <p><b>Spring term</b></p>		

	<p><u>Animals:</u> Woodwork Sessions</p> <p><u>Growth and change:</u> cooking and woodwork sessions</p> <p><b>Summer term</b>  <u>Transport:</u>  To learn to construct with a purpose in mind. -Selects tools and techniques needed to shape, assemble and join materials at the woodwork area  <u>Superheroes:</u> Learning how to use a range of tools, e.g. scissors, hole punch, stapler, woodworking tools, rolling pins, pastry cutters. -Learn how everyday objects work by dismantling things.</p> <p><b>Reception</b></p> <p><b>Autumn</b>  <u>My Family-</u> cooking and woodwork  <u>Light and Dark-</u> cooking and woodwork</p> <p><b>Spring</b>  <u>Hot and Cold:</u> cooking and woodwork  <u>New Life:</u> cooking and woodwork</p> <p><b>Summer</b>  <u>Once Upon a Time:</u> cooking and woodwork  <u>Litter explorers:</u> cooking and woodwork</p>		
<b>Year 1</b>	<b>Mechanism-</b> Design and make a Christmas card with sliders and levers.	<b>Structures-</b> Design and make a Freestanding sun shelter.	<b>Cooking and Nutrition-</b> Design and make a healthy snack.
<b>Year 2</b>	<b>Mechanism-</b> Design and make a wheeled trolley to carry tools	<b>Cooking and Nutrition-</b> Design and make a healthy pasta salad.	<b>Save Make Reinvent -</b> Institute of Imagination <i>Structures</i>
<b>Year 3</b>	<b>Mechanism-</b> Design and make an interactive poster using levers and linkages.	<b>Cooking and Nutrition-</b> Design and make a healthy sandwich	<b>Textiles-</b> Design and make a fashion accessory to be worn at a carnival.
<b>Year 4</b>	<b>Structures-</b> Design and make packaging to protect resources from	<b>Electrical Systems-</b> Design and make a torch light.	<b>Cooking and nutrition-</b> Design and make healthy dips and dippers.

	getting damaged		
<b>Year 5</b>	<b>Structures-</b> Design and make a wooden plant stand.	<b>Cooking and Nutrition-</b> Design and make a bread roll/ bun.	<b>Electrical Systems-</b> Design and make an alarm system to protect a valuable item.
<b>Year 6</b>	<b>Textiles-</b> Design and make a pair of slippers.	<b>Cooking and Nutrition-</b> Design and make a seasonal soup.	<b>Save Make Reinvent</b> -Institute of Imagination - <i>Electrical Systems</i>
<b>Enrichment/Cultural Capital</b>			
Institute of Imagination workshops, Work Week, Design and Technology Association, Kokura cooking workshops, 3D printer, Juniper food tasting, playground design competition.			

## EYFS Essential Knowledge

### Nursery

- **PSED:** Select and use activities and resources, with help when needed. This helps them to achieve a goal they have chosen or one which is suggested to them.
- **PD:** Use large-muscle movements to wave flags and streamers, paint and make marks.
- **PD:** Choose the right resources to carry out their own plan.
- **PD:** Use one-handed tools and equipment, for example, making snips in paper with scissors.
- **UW:** Explore how things work.
- **EAD:** Make imaginative and complex 'small worlds' with blocks and construction kits, such as a city with different buildings and a park.
- **EAD:** Explore different materials freely, in order to develop their ideas about how to use them and what to make.
- **EAD:** Develop their own ideas and then decide which materials to use to express them.
- **EAD:** Create closed shapes with continuous lines, and begin to use these shapes to represent objects.

### Reception

- **PD:** Progress towards a more fluent style of moving, with developing control and grace.
- **PD:** Develop their small motor skills so that they can use a range of tools competently, safely and confidently pencils for drawing and writing, paintbrushes, scissors, knives, forks and spoons.
- **PD:** Use their core muscle strength to achieve a good posture when sitting at a table or sitting on the floor.
- **EAD:** Explore, use and refine a variety of artistic effects to express their ideas and feelings.
- **EAD:** Return to and build on their previous learning, refining ideas and developing their ability to represent them.
- **EAD:** Create collaboratively, sharing ideas, resources and skills
- **PD:** fine motor skills: Use a range of small tools, including scissors, paintbrushes and cutlery.
- **EAD:** Creating with materials: Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function.
- **EAD:** Share their creations, explaining the process they have used.

## Year 1 Essential Knowledge

## Year 2 Essential Knowledge

<p><b>Food:</b> cut and chop ingredients safely and hygienically. Understand where a range of fruit and vegetables come from e.g. farmed or grown at home.</p> <p><b>Materials:</b> cut materials safely using the tools provided.</p> <p>Demonstrate a range of cutting and shaping techniques (such as tearing, cutting, folding and curling).</p> <p>Demonstrate a range of joining techniques (such as glueing, taping or combining materials to strengthen).</p> <p><b>Mechanics:</b> create products using sliders and levers,</p> <p><b>Design:</b> design products that have a clear user.</p> <p>Make: select and use tools, explaining their choices, to cut, shape and join paper and card</p> <p><b>Evaluate:</b> Evaluate ideas and finished products against design criteria Explore objects and designs to identify likes and dislikes of the designs.</p>	<p><b>Food:</b> grate, peel, combine and assemble ingredients. Understand and use basic principles of a healthy and varied diet to prepare dishes, including how fruit and vegetables are part of the Eatwell plate</p> <p><b>Mechanics:</b> create products using wheels and axles</p> <p><b>Design:</b> design products that have a clear user and purpose and follow simple design criteria.</p> <p><b>Make:</b> select from and use a range of tools and equipment to perform practical tasks such as cutting and joining to allow movement and finishing.</p> <p><b>Evaluate:</b> Evaluate ideas and finished products against design criteria, including intended user and purpose Suggest improvements to existing designs</p>
Year 3 Essential Knowledge	Year 4 Essential Knowledge
<p><b>Food:</b> prepare ingredients hygienically using appropriate utensils. Know about a range of fresh and processed ingredients appropriate for their product.</p> <p><b>Textiles:</b> Join textiles using a running stitch. Understand the need for a seam allowance. Colour and decorate textiles using a number of techniques. Select the most appropriate techniques to decorate textiles.</p> <p><b>Mechanics:</b> Create products using levers and linkages</p> <p><b>Design:</b> design by annotated sketches and prototypes to develop, model and communicate ideas.</p> <p><b>Make:</b> Make products by working efficiently (such as by carefully selecting materials)</p> <p><b>Evaluate:</b> evaluate their own products and ideas against criteria and user needs,</p>	<p><b>Food:</b> Measure ingredients accurately. Know whether fresh and processed ingredients are grown, reared or caught Carry out sensory evaluations of a variety of ingredients and products.</p> <p><b>Materials:</b> select appropriate joining techniques. Measure and mark out to the nearest millimetre. Strengthen materials using suitable techniques.</p> <p><b>Electronics:</b> create series and parallel circuits</p> <p><b>Design:</b> use software to design and represent product designs.</p> <p><b>Make:</b> Plan the order of the main stages of making.</p> <p><b>Evaluate:</b> record the evaluations using e.g. tables and simple graphs. Improve upon existing designs, giving reasons for choices.</p>



as they design and make.  
Explore how products have been created

### Year 5 Essential Knowledge

**Food:** measure or weigh using measuring cups or electronic scales.  
Measure accurately and calculate ratios of ingredients to scale up or down from a recipe.

**Materials:** cut materials with precision and refine the finish with appropriate tools (such as sanding wood after cutting or a more precise scissor cut after roughly cutting out a shape).

**Construction:** Use materials to practise screwing, glueing and nailing materials to make and strengthen products.  
Choose suitable techniques to construct products.

**Design:** gather information about needs and wants, and develop design criteria to inform the design of products that are fit for purpose, aimed at particular individuals or groups.

**Make:** formulate a clear plan, including a step-by-step list of what needs to be done and lists of resources to be used.

**Evaluate:** evaluate the final product with reference back to the design brief and design specification, taking into account the views of others when identifying Improvements

Disassemble products to understand how they work.

### Year 6 Essential Knowledge

**Food:** demonstrate a range of baking and cooking techniques.  
Create and refine recipes, including ingredients, methods, cooking times and temperatures. Assemble or cook ingredients. Understand about seasonality in relation to food products and the source of different food products.

**Textiles:** Show an understanding of the qualities of materials. To choose appropriate tools to cut and shape (such as the nature of fabric may require sharper scissors than would be used to cut paper).

Create objects that employ a seam allowance.  
Join textiles with a combination of stitching techniques (such as back stitch for seams and running stitch to attach decoration).

Use the qualities of materials to create suitable visual and tactile effects in the decoration of textiles (such as a soft decoration for comfort on a cushion).

**Design:** use prototypes, cross-sectional diagrams and computer-aided designs to represent designs.

**Make:** write a step-by-step recipe, including a list of ingredients, equipment and utensils

**Evaluate:** test products with intended users and critically evaluate the quality of the design, manufacture, functionality and fitness for purpose.

Combine elements of design from a range of inspirational designers throughout history, giving reasons for choices.