

# End of Year Framework

Subject: DT



## National Curriculum Aims

The national curriculum for design and technology aims to ensure that all pupils:

- develop the creative, technical and practical expertise needed to perform everyday tasks confidently and to participate successfully in an increasingly technological world
- build and apply a repertoire of knowledge, understanding and skills in order to design and make high-quality prototypes and products for a wide range of users
- critique, evaluate and test their ideas and products and the work of others
- understand and apply the principles of nutrition and learn how to cook.

## DT Key Concepts

	YR	Y1	Y2	Y3	Y4	Y5	Y6
Design							
Make							
Innovate							
Adapt							
Evaluate							
Functionality							
Nutrition							
Problem Finding							

	Knowledge	Skills	Key Vocabulary	
EYFS	<p><b>Design:</b> I can create my own designs.</p> <p><b>Make:</b> I can explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function.</p> <p><b>Evaluate:</b> I can share and talk about my creations.</p> <p><b>Technical Knowledge:</b> I can explain processes I have used.</p> <p><b>Cooking and Nutrition:</b> I know some foods that can be grown locally.</p>	<p>I can understand how to keep myself safe when using equipment.</p> <p>I can use a range of small tools, including scissors, paint brushes and cutlery.</p> <p>I can use a table knife safely to cut with increasing accuracy.</p>	<ul style="list-style-type: none"> <li>● Adapt</li> <li>● Balance</li> <li>● Build</li> <li>● Create</li> <li>● Construct</li> <li>● Design</li> <li>● Evaluate</li> <li>● Horizontal</li> <li>● Model</li> <li>● Purpose</li> </ul>	<ul style="list-style-type: none"> <li>● Reflect</li> <li>● Resources</li> <li>● Revise</li> <li>● Shape</li> <li>● Space</li> <li>● Stacking</li> <li>● Structure</li> <li>● Techniques</li> <li>● Tools</li> <li>● Vertical</li> </ul>
Year 1	<p><b>Design:</b> I can design purposeful, functional, appealing products for myself and other users based on design criteria.</p> <p><b>Make:</b> I can understand a variety of ways to join materials.</p> <p><b>Evaluate:</b> I can begin to explain how my product can be improved.</p> <p><b>Evaluate:</b> I can explore and evaluate a range of existing products</p> <p><b>Technical Knowledge:</b> I can begin to explain the key vocabulary: design, make and evaluate.</p> <p><b>Cooking and Nutrition:</b> I understand where food comes from.</p> <p><b>Cooking and Nutrition:</b> I can explain how different food might be prepared.</p>	<p>I can select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing].</p> <p>I can build structures, exploring how they can be made stronger, stiffer and more stable.</p> <p>I can accurately apply the most suitable material for joins.</p> <p>I can begin to talk about and demonstrate how to safely use equipment.</p> <p><b>Focus skills:</b></p> <ol style="list-style-type: none"> <li>1. Joining materials - wheels.</li> <li>2. Structures - sliders.</li> <li>3. Cooking - local food. Raw materials.</li> </ol>	<ul style="list-style-type: none"> <li>● Adapting</li> <li>● Appealing</li> <li>● Assemble</li> <li>● Cloth</li> <li>● Cutting</li> <li>● Curling</li> <li>● Diet</li> <li>● Design</li> <li>● Designer</li> <li>● Evaluate</li> <li>● Embellish</li> <li>● Folding</li> <li>● Finishing</li> <li>● Function/Functional/Functionality</li> <li>● Healthy</li> <li>● Hygiene</li> <li>● Ingredients</li> <li>● Innovation</li> <li>● Joining</li> </ul>	<ul style="list-style-type: none"> <li>● Maker</li> <li>● Measure/Measurement</li> <li>● Mechanisms</li> <li>● Moving</li> <li>● Materials</li> <li>● Model</li> <li>● Nutrition</li> <li>● Preparation</li> <li>● Purposeful</li> <li>● Product</li> <li>● Safety</li> <li>● Sketch</li> <li>● Shaping</li> <li>● Tools</li> <li>● Tearing</li> <li>● Textiles</li> <li>● Unhealthy</li> <li>● Varied</li> <li>● Weighing</li> </ul>
Year 2	<p><b>Design:</b> I can design and communicate an idea using simple annotations to explain my ideas.</p> <p><b>Design:</b> I can generate, develop, model and communicate my ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology.</p> <p><b>Make:</b> I can explore and use mechanisms [for example, levers, sliders, wheels and axles], in my products.</p> <p><b>Evaluate:</b> I can evaluate my ideas and products against design criteria.</p> <p><b>Technical Knowledge:</b> I can use technical vocabulary to explain and annotate my work.</p> <p><b>Cooking and Nutrition:</b> I can use the basic principles of a healthy and varied diet to prepare dishes.</p>	<p>I can select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics.</p> <p>I can explore, use and make mechanisms in my products.</p> <p><b>Focus skills:</b></p> <ol style="list-style-type: none"> <li>1. Mechanisms - Joining materials. Sewing.</li> <li>2. Structures - levers, axles.</li> <li>3. Cooking - healthy meal. Raw materials.</li> </ol>	<ul style="list-style-type: none"> <li>● Construction</li> <li>● Curling</li> <li>● Cutting</li> <li>● Design</li> <li>● Evaluate</li> <li>● Functionality</li> <li>● Folding</li> <li>● Measure</li> <li>● Materials</li> <li>● Models</li> <li>● Mechanisms</li> <li>● Prototypes</li> <li>● Purposeful</li> <li>● Product</li> <li>● Sketch</li> </ul>	<ul style="list-style-type: none"> <li>● Structures</li> <li>● Shaping</li> <li>● Tools</li> <li>● Tearing</li> <li>● Textiles</li> <li>● Templates</li> </ul>

<p><b>Year 3</b></p>	<p><b>Design:</b> I can modify existing designs to change my purpose.</p> <p><b>Make:</b> I can apply my understanding of how to strengthen, stiffen and reinforce more complex structures.</p> <p><b>Evaluate:</b> I can begin to modify my original designs based on suitability for purpose.</p> <p><b>Technical Knowledge:</b> I can explain why structures have been used for specific designs.</p> <p><b>Cooking and Nutrition:</b> I can explain a healthy and balanced diet.</p>	<p>I can begin to use more complicated joins safely using equipment such as glue guns, junior hacksaws, hand drills and sanding equipment.</p> <p><b>Focus skills:</b></p> <ol style="list-style-type: none"> <li><b>Structures - reinforcing.</b></li> <li><b>Joining - pulleys.</b></li> <li><b>Cooking - balanced diet. Cooking with few ingredients.</b></li> </ol>	<ul style="list-style-type: none"> <li>● Assemble</li> <li>● Construction</li> <li>● Diet</li> <li>● Design</li> <li>● Designer</li> <li>● Evaluate</li> <li>● Fresh Foods</li> <li>● Healthy</li> <li>● Hygiene</li> <li>● Iconic</li> <li>● Innovation</li> <li>● Ingredients</li> <li>● Maker</li> <li>● Measure / Measurement</li> <li>● Materials</li> <li>● Models</li> <li>● Nutrition</li> </ul>	<ul style="list-style-type: none"> <li>● Preparation</li> <li>● Purposeful/ Purpose</li> <li>● Product</li> <li>● Prototypes</li> <li>● Recipe</li> <li>● Structure</li> <li>● Safety</li> <li>● Seasonality</li> <li>● Sketch</li> <li>● Structures</li> <li>● Shaping</li> <li>● Tools</li> <li>● Templates</li> <li>● Unhealthy</li> <li>● Varied</li> <li>● Weighing</li> </ul>
<p><b>Year 4</b></p>	<p><b>Design:</b> I can investigate and analyse a range of existing products.</p> <p><b>Make:</b> I can understand and use mechanical systems in my products [for example, gears, pulleys, cams, levers and linkages].</p> <p><b>Evaluate:</b> I can investigate and analyse a range of existing products.</p> <p><b>Evaluate:</b> I can evaluate my ideas and products against my own design criteria.</p> <p><b>Technical Knowledge:</b> I can begin to look at the limitations of equipment.</p> <p><b>Technical Knowledge:</b> I can understand and use electrical systems in my products [for example, series circuits incorporating switches, bulbs, buzzers and motors].</p> <p><b>Cooking and Nutrition:</b> I can understand and apply the principles of a healthy and varied diet.</p>	<p>I can build working mechanical systems using a variety of different equipment safely.</p> <p>I can use heat to cook and prepare savoury dishes.</p> <p><b>Focus skills:</b></p> <ol style="list-style-type: none"> <li><b>Mechanical systems - cams.</b></li> <li><b>Electrical systems.</b></li> <li><b>Cooking - heating savoury dishes.</b></li> </ol>	<ul style="list-style-type: none"> <li>● Aesthetics</li> <li>● Cutting</li> <li>● Creativity</li> <li>● Design</li> <li>● Decoration</li> <li>● Embellishment</li> <li>● Functional/Functionality</li> <li>● Finishing</li> <li>● Innovation</li> <li>● Joins / Joining</li> <li>● Materials</li> <li>● Model</li> <li>● Measure</li> <li>● Mechanisms</li> <li>● Originality</li> <li>● Purpose / Purposeful</li> <li>● Product</li> </ul>	<ul style="list-style-type: none"> <li>● Stitching</li> <li>● Seams</li> <li>● Shaping</li> <li>● Structures</li> <li>● Sketch</li> <li>● Textiles</li> <li>● Tools</li> </ul>

<p><b>Year 5</b></p>	<p><b>Design:</b> I can use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups.</p> <p><b>Make:</b> I can make an appealing product that is fit for purpose, based on design criteria.</p> <p><b>Make:</b> I can apply my understanding of how to strengthen, stiffen and reinforce more complex structures.</p> <p><b>Evaluate:</b> I can evaluate my ideas and products against my own design criteria and consider the views of others to improve my work.</p> <p><b>Technical Knowledge:</b> I can understand how key events in design and technology have helped shape the world.</p> <p><b>Cooking and Nutrition:</b> I can prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques.</p>	<p>I can select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately.</p> <p>I can use knives safely to prepare food and then use heat to cook and prepare savoury dishes using a range of cooking techniques.</p> <p><b>Focus skills:</b></p> <ol style="list-style-type: none"> <li><b>Mechanical systems - pulleys.</b></li> <li><b>Reinforcement - sewing.</b></li> <li><b>Cooking - techniques (boiling, frying, baking, grilling, poaching, scrambling).</b></li> </ol>	<ul style="list-style-type: none"> <li>● Cutting</li> <li>● Creativity</li> <li>● Design/Designer</li> <li>● Evaluate</li> <li>● Functionality</li> <li>● Finishing</li> <li>● Innovation</li> <li>● Joining</li> <li>● Measure</li> <li>● Materials</li> <li>● Mechanisms</li> <li>● Maker</li> <li>● Purpose</li> <li>● Purposeful</li> <li>● Product</li> <li>● Sketch</li> <li>● Shaping</li> <li>● Structures</li> <li>● Tools</li> </ul>	
<p><b>Year 6</b></p>	<p><b>Design:</b> I can generate, develop, model and communicate my ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design.</p> <p><b>Make:</b> I can 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><b>Evaluate:</b> I can critically analyse my work based on the design criteria, and suggest multiple improvements.</p> <p><b>Technical Knowledge:</b> I can understand how key events and individuals in design and technology have helped shape the world.</p> <p><b>Cooking and Nutrition:</b> I can understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed.</p>	<p>I can apply my understanding of computing to program, monitor and control my products.</p> <p>I can use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities.</p> <p><b>Focus skills:</b></p> <ol style="list-style-type: none"> <li><b>Mechanical systems - gears (computer programming)</b></li> <li><b>Sewing.</b></li> <li><b>Cooking - seasonality (Seasonally appropriate meals).</b></li> </ol>	<ul style="list-style-type: none"> <li>● Assemble</li> <li>● Construction</li> <li>● Construction</li> <li>● Diet</li> <li>● Decay</li> <li>● Design</li> <li>● Electrics</li> <li>● Fresh Foods</li> <li>● Growth</li> <li>● Hygiene</li> <li>● Healthy</li> <li>● Harvest</li> <li>● Ingredients</li> <li>● Measurement /Measure</li> <li>● Materials</li> <li>● Models</li> <li>● Nutrition</li> </ul>	<ul style="list-style-type: none"> <li>● Prototypes</li> <li>● Purposeful</li> <li>● Product</li> <li>● Plan</li> <li>● Preparation</li> <li>● Recipe</li> <li>● Safety</li> <li>● Seasonality</li> <li>● Shaping</li> <li>● Sketch</li> <li>● Structures</li> <li>● Technology</li> <li>● Tools</li> <li>● Templates</li> <li>● Unhealthy</li> <li>● Varied</li> <li>● Weighing</li> </ul>

## Mission Statement

Design technology is a crucial part of school life and learning and it is for these reasons that as a school, we are dedicated to teaching a high-quality design technology curriculum through well-planned and resourced projects and experiences. From this approach, we believe children are encouraged to:

- work to a high standard
- problem solve and reason
- observe detail
- provide analytical, critical and yet thoughtful and sensitive responses
- evaluate processes, techniques and skills
- express creativity, imagination and individuality
- apply designing and making techniques, skills, systems and processes to the made world
- use equipment and tools appropriately and safely

Cooking	Workshop	In Class	Mechanisms
knives peelers scissors mixing (whisks, spoons) weighing	press drill bandsaw tenon saw chisel hammers sandpaper & sanding blocks measure set square hand drill junior hacksaw bench hooks craft knives	glue gun hacksaws & saw blocks scissors tape ruler	pulleys axles circuit boards switches lights wire wire clips