





# DESIGN & TECHNOLOGY

## LONG TERM PLAN

KSI	Cycle 1	Cycle 2
Autumn 1	Cooking: Sandwich Snacks	Cooking: Seaside Snacks
Autumn 2	Textiles: Xmas Decorations	Structures: Playgrounds
Spring 1	Mechanical Systems: Moving Pictures	Cooking: Teddy Bear's Picnic
Spring 2	N/A	N/A
Summer 1	Cooking: Eat More Fruit & Vegetables	Textiles: Bookmarks
Summer 2	Structures: Stable Structures	Mechanical Systems: Vehicles

LKS2	Cycle 1	Cycle 2
Autumn 1	Cooking: Bread	Cooking: Pizza
Autumn 2	Textiles: Xmas Decorations	Structures: Photograph Frames
Spring 1	Mechanical Systems: Story Books	Cooking: Great British Dishes
Spring 2	N/A	N/A
Summer 1	Cooking: Seasonal Food	Textiles: Felt Monsters
Summer 2	Structures: Light-Up Signs	Mechanical Systems: Moving Monsters

UKS2	Cycle 1	Cycle 2
Autumn 1	Cooking: Vegetarian Pies	Cooking: Burgers
Autumn 2	Textiles: Xmas Decorations	Structures: Building Bridges
Spring 1	Mechanical Systems: Moving Toys	Mechanical Systems: Chinese Inventions
Spring 2	N/A	N/A
Summer 1	Cooking: American Food	Textiles: Pencil Cases
Summer 2	Structures: Fairground	Mechanical Systems: Programming Pioneers



# DESIGN & TECHNOLOGY

Year	Design
EYFS	<ul style="list-style-type: none"> <li>- Find out about a range of technology</li> <li>- Begin to think about uses and purposes of products.</li> <li>- Represent their own ideas in various ways.</li> </ul>
KSI	<ul style="list-style-type: none"> <li>- Use their knowledge of existing products and their own experience to help generate their ideas.</li> <li>- Design products that have a purpose and are aimed at an intended user.</li> <li>- Explain how their products will look and work through talking and simple annotated drawings.</li> <li>- Understand and follow simple design criteria.</li> <li>- Work in a range of relevant contexts.</li> </ul>
LKS2	<ul style="list-style-type: none"> <li>- Identify the design features of their products that will appeal to intended customers.</li> <li>- Use their knowledge of a broad range of existing products to help generate their ideas.</li> <li>- Design innovative and appealing products that have a clear purpose and are aimed at a specific user.</li> <li>- Explain how particular parts of their products work.</li> <li>- Use annotated sketches and cross-sectional drawings to develop and communicate their ideas.</li> <li>- Explore different initial ideas before coming up with a final design.</li> <li>- Start to explain their choice of materials and components including function and aesthetics.</li> <li>- Test ideas out through using prototypes.</li> <li>- Develop and follow simple design criteria.</li> <li>- Work in a broader range of relevant contexts.</li> </ul>
UKS2	<ul style="list-style-type: none"> <li>- Use research to inform and develop detailed design criteria.</li> <li>- Use their knowledge of a broad range of existing products to help generate their ideas;</li> <li>- Design products that have a clear purpose and indicate the design features of their products that will appeal to the intended user.</li> <li>- Explain how particular parts of their products work;</li> <li>- Use annotated sketches and cross-sectional drawings to develop and communicate their ideas.</li> <li>- Generate a range of design ideas and clearly communicate final designs.</li> <li>- Consider the availability and costings of resources.</li> <li>- Work in a broad range of relevant contexts.</li> </ul>



# DESIGN & TECHNOLOGY

Year	Make
EYFS	<ul style="list-style-type: none"> <li>- Begin to explore measuring objects.</li> <li>- Use technology for particular purposes.</li> <li>- Select appropriate applications that support an identified need.</li> <li>- Develop ideas through selecting and using materials and working on processes that interest them.</li> <li>- Safely use, explore and experiment with a variety of materials, tools and techniques.</li> </ul>
KSI	<ul style="list-style-type: none"> <li>- Begin to select from a range of hand tools and equipment.</li> <li>- Learn to use hand tools and kitchen equipment safely.</li> <li>- With help, measure and mark out.</li> <li>- Cut, shape and score materials with some accuracy.</li> <li>- Assemble, join and combine materials, components or ingredients.</li> <li>- Demonstrate how to cut, shape and join fabric to make a simple product.</li> <li>- Use a basic running stitch with a large eye needle and Binca fabric.</li> <li>- Begin to use simple finishing techniques to improve the appearance of their product, such as adding simple decorations.</li> </ul>
LKS2	<ul style="list-style-type: none"> <li>- Carefully select from a range of tools and equipment.</li> <li>- Learn to use a range of tools and equipment safely.</li> <li>- With growing independence, measure and mark out to the nearest cm and millimetre;</li> <li>- Cut, shape and score materials with some degree of accuracy</li> <li>- Assemble, join and combine material and components with some degree of accuracy.</li> <li>- Measure, cut, shape and join fabric accurately.</li> <li>- Join textiles with various sewing techniques using a standard needle and felt fabric.</li> <li>- Begin to select and use different and appropriate finishing techniques to improve the appearance of a product such as hemming, tie-dye, fabric paints and digital graphics.</li> </ul>
UKS2	<ul style="list-style-type: none"> <li>- With confidence, select from a wide range of tools and equipment.</li> <li>- Learn to use a wide range of tools and equipment safely.</li> <li>- Independently take exact measurements and mark out, to within 1mm.</li> <li>- Cut a range of materials with precision and accuracy.</li> <li>- Shape and score materials with precision and accuracy.</li> <li>- Assemble, join and combine materials and components with accuracy.</li> <li>- Measure, make a seam allowance, tape, pin, cut, shape and join fabric with precision to make a more complex product.</li> <li>- Join textiles using a variety of complex and intricate stitches with accuracy, using pins to temporarily hold woven fabrics in place.</li> <li>- Refine the finish using techniques to improve the appearance of their product, such as sanding or a more precise scissor cut after roughly cutting out a shape.</li> </ul>



# DESIGN & TECHNOLOGY

Year	Evaluate
EYFS	<ul style="list-style-type: none"> <li>- Explore characteristics of everyday objects.</li> <li>- Talk about the features of their own and others' work, recognising the strengths and differences between them.</li> </ul>
KSI	<ul style="list-style-type: none"> <li>- Explore and evaluate existing products mainly through discussions, comparisons and simple written evaluations.</li> <li>- Explain positives and things to improve for existing products.</li> <li>- Explore what materials products are made from.</li> <li>- Talk about their design ideas and what they are making.</li> <li>- As they work, start to identify strengths and possible changes they might make to refine their existing design.</li> <li>- Evaluate their products and ideas against their simple design criteria.</li> <li>- Start to understand that the iterative process sometimes involves repeating different stages of the process.</li> </ul>
LKS2	<ul style="list-style-type: none"> <li>- Explore and evaluate existing products, explaining the purpose of the product and whether it is designed well to meet the intended purpose.</li> <li>- Explore what materials/ingredients products are made from and suggest reasons for this.</li> <li>- Consider their design criteria as they make progress and are willing to alter their plans, sometimes considering the views of others if this helps them to improve their product.</li> <li>- Evaluate their product against their original design criteria.</li> <li>- Evaluate the key events, including technological developments, and designs of individuals in design and technology that have helped shape the world.</li> </ul>
UKS2	<ul style="list-style-type: none"> <li>- Complete detailed competitor analysis of other products on the market.</li> <li>- Critically evaluate the quality of design, manufacture and fitness for purpose of products as they design and make.</li> <li>- Evaluate their ideas and products against the original design criteria, making changes as needed.</li> </ul>



# DESIGN & TECHNOLOGY

Year	Technical Knowledge
EYFS	<ul style="list-style-type: none"><li>- Recognise that a range of technology is used in homes and schools.</li><li>- Use what they have learnt about media and materials in different ways.</li><li>- Talk about ideas and processes which have led them to make designs and products.</li></ul>
KSI	<ul style="list-style-type: none"><li>- Build simple structures, exploring how they can be made stronger, stiffer and more stable.</li><li>- Talk about and start to understand the simple working characteristics of materials and components.</li><li>- Explore and create products using mechanisms, such as levers, sliders, wheels and axles.</li></ul>
LKS2	<ul style="list-style-type: none"><li>- Understand that materials have both functional properties and aesthetic qualities.</li><li>- Apply their understanding of how to strengthen, stiffen and reinforce more complex structures in order to create more useful characteristics of products.</li><li>- Understand and demonstrate how mechanical and electrical systems have an input and output process.</li><li>- Make and represent simple electrical circuits and components to create functional products.</li><li>- Explain how mechanical systems such as levers and linkages create movement.</li><li>- Use mechanical systems in their products.</li></ul>
UKS2	<ul style="list-style-type: none"><li>- Apply their understanding of how to strengthen, stiffen and reinforce more complex structures in order to create more useful characteristics of products.</li><li>- Understand and demonstrate that mechanical and electrical systems have an input, process and output.</li><li>- Explain how mechanical systems, such as cams, create movement and use mechanical systems in their products.</li><li>- Apply their understanding of computing to program, monitor and control a product.</li></ul>



# DESIGN & TECHNOLOGY

Year	Cooking & Nutrition
EYFS	<p><b><u>Weighing and measuring:</u></b> Weigh and measure with adult assistance.</p> <p><b><u>Sharp equipment:</u></b> Divide food using safety knives and adult assistance.</p> <p><b><u>Preparation:</u></b> Mix ingredients with adult assistance</p> <p><b><u>Assembling:</u></b> Place ingredients together with adult assistance.</p> <p><b><u>Cooking techniques:</u></b> Show some understanding of the effect of baking.</p> <p><b><u>Source of food:</u></b> Show some awareness of where food comes from.</p> <p><b><u>Diet:</u></b> Understand the importance of healthy eating choices.</p>
KSI	<p><b><u>Weighing and measuring:</u></b> Ensure scales are set to zero and placed on a flat surface. Pour liquids carefully.</p> <p><b><u>Sharp equipment:</u></b> Using safety knives, chop and cut fruit and vegetables, and develop use of the bridge hold.</p> <p><b><u>Preparation:</u></b> Stir and mix ingredients.</p> <p><b><u>Assembling:</u></b> Attempt to spread ingredients evenly. Carefully arrange ingredients aesthetically.</p> <p><b><u>Cooking techniques:</u></b> Bake and blend non-savoury foods.</p> <p><b><u>Source of food:</u></b> Understand that all food comes from plants or animals.</p> <p>Classify foods as fruit or vegetables.</p> <p><b><u>Diet:</u></b> Explain the importance of eating fruit and vegetables.</p>
LKS2	<p><b><u>Weighing and measuring:</u></b> Use spoons to avoid spilling when weighing. Pour liquids until a given point.</p> <p><b><u>Sharp equipment:</u></b> Using sharper equipment, peel, grate, slice, chop and develop use the of the claw grip.</p> <p><b><u>Preparation:</u></b> Sift, beat, knead and whisk ingredients.</p> <p><b><u>Assembling:</u></b> Shape and thread food.</p> <p><b><u>Cooking techniques:</u></b> Bake savoury foods, taking responsibility for timings.</p> <p><b><u>Source of food:</u></b> Understand where food is grown, caught and reared in the wider world.</p> <p>Understand and explain the meaning of seasonality in food production. Name different uses and functions of the same primary ingredient.</p> <p><b><u>Diet:</u></b> Identify and name the different sections of the Eatwell plate, and understand the need for variety and balance in our diet.</p>
UKS2	<p><b><u>Weighing and measuring:</u></b> Understand and use a range of metric and imperial measures.</p> <p><b><u>Sharp equipment:</u></b> Dice ingredients.</p> <p><b><u>Preparation:</u></b> Combine and rub-in ingredients.</p> <p><b><u>Assembling:</u></b> Roll out, sprinkle and trim food.</p> <p><b><u>Cooking techniques:</u></b> Fry and boil savoury foods.</p> <p><b><u>Source of food:</u></b> Understand and discuss the impact of food production on our planet and consider our role in developing sustainable nutrition. Research the location of the ingredients in the food they make.</p> <p><b><u>Diet:</u></b> Understand and explain how food labelling is used in the UK.</p>