

Excalibur Design and Technology Curriculum

Year 2

Design and Technology Intent Year 2

Using creativity and imagination, pupils design and make products that solve real and relevant problems within a variety of contexts, considering their own and others' needs, wants and values. They acquire a broad range of subject knowledge and draw on disciplines such as mathematics, science, engineering, computing and art. Pupils learn how to take risks, becoming resourceful, innovative, enterprising and capable citizens. Through the evaluation of past and present design and technology, they develop a critical understanding of its impact on daily life and the wider world. High-quality design and technology education makes an essential contribution to the creativity, culture, wealth and well-being of the nation.

Design and Technology Implementation Year 2

Skills	Knowledge
<p>Pupils will be taught to use the following practical methods and skills:</p> <p><u>Developing, Planning and Communicating Ideas</u></p> <ul style="list-style-type: none">• Generate ideas by drawing on their own and other people's experiences• Develop their design ideas through discussion, observation, drawing and modelling• Identify a purpose for what they intend to design and make• Identify simple design criteria• Make simple drawings and label parts <p><u>Working with tools, equipment, materials and components to make quality products (Inc food)</u></p> <ul style="list-style-type: none">• Begin to select tools and materials; use vocab' to name and describe them• Measure, cut and score with some accuracy• Use hand tools safely and appropriately• Assemble, join and combine materials in order to make a product• Cut, shape and join fabric to make a simple garment. Use basic sewing techniques• Follow safe procedures for food safety and hygiene• Choose and use appropriate finishing techniques <p><u>Evaluating processes and Products</u></p> <ul style="list-style-type: none">• Evaluate against their design criteria	<p>The children will learn about:</p> <p><u>Food</u></p> <p>Focus: Preparing Fruit and Vegetables</p> <p>Project: Healthy Fruit Smoothies</p> <ul style="list-style-type: none">• I can use a wider range of cookery techniques to prepare food safely• I can understand the need for variety in diet• I can understand that all food has to be farmed, grown or caught. <p><u>Mechanisms</u></p> <p>Focus: Sliders and Levers</p> <p>Project: Interactive Information Poster</p> <ul style="list-style-type: none">• I can design useful, pleasing products for myself and others based on a design brief.• I can safely measure, mark out, cut and shape materials and components using a range of tools.• I can generate, develop, model and communicate my ideas through talking, drawing, templates, mock ups and IT.• I can choose tools I would like to use and select materials based on my knowledge of their properties.• I can evaluate and assess existing products and those that I have made using a design criteria.• I can investigate different techniques for stiffening a variety of materials and explore different methods of enabling structures to remain stable.• I can explore and use mechanisms such as levers, sliders, wheels and axles in products <p><u>Structures</u></p> <p>Focus: Free Standing Structures</p> <p>Project: Beach Equipment</p> <ul style="list-style-type: none">• I can design useful, pleasing products for myself and others based on a design brief.

<ul style="list-style-type: none"> • Evaluate their products as they are developed, identifying strengths and possible changes they might make • Talk about their ideas, saying what they like and dislike about them 	<ul style="list-style-type: none"> • I can safely measure, mark out, cut and shape materials and components using a range of tools. • I can generate, develop, model and communicate my ideas through talking, drawing, templates, mock ups and IT. • I can choose tools I would like to use and select materials based on my knowledge of their properties. • I can evaluate and assess existing products and those that I have made using a design criteria. • I can investigate different techniques for stiffening a variety of materials and explore different methods of enabling structures to remain stable.
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Design and Technology Vocabulary Year 2

Food Preparing Fruit and Vegetables	Mechanisms Sliders and Levers	Structures Free Standing Structures
Fruit, vegetables, soft, juicy, crunchy, sticky, smooth, sharp, crisp, sour hard, flesh, skin, seed pip, core, slicing, peeling, cutting, squeezing, healthy diet, choosing, ingredients, planning, tasting, arranging	Mechanism, lever, slider, slot, pivot, guide/bridge, masking tape, fastener, pull, push, down, straight, work, design, evaluate, purpose,	Structure, base, underneath, thicker, thinner, corner, point, straight, curved, rectangle, cube, cuboid, cylinder