

Excalibur Design and Technology Curriculum

Year 1

Design and Technology Intent Year 1

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 1

| Skills | Knowledge |
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| <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">• Draw on their own experience to help them generate ideas• Suggest ideas and explain what they are going to do• Identify a target group for what they intend to design and make• Model their ideas in card and paper• Develop their design ideas applying findings from their earlier research, <p><u>Working with tools, equipment, materials and components to make quality products (Inc food)</u></p> <ul style="list-style-type: none">• Make their design using appropriate techniques• With help measure, mark out, cut and shape a range of materials• Use tools eg scissors and a hole punch safely• Assemble, join and combine materials and components together using a variety of temporary methods e.g. glues or masking tape• Select and use appropriate fruit and vegetables, processes and tools• Use basic food handling, hygienic practices and personal hygiene• Use simple finishing techniques to improve the appearance of their product | <p>The children will learn about:</p> <p><u>Textiles</u></p> <p>Focus: Templates and Joining Techniques</p> <p>Project: Superhero Hand Puppets</p> <ul style="list-style-type: none">• I can use a range of materials and components• I can measure, mark out, cut and shape materials and components• I can assemble, join and combine materials and components• I can join fabric in simple ways by gluing and stitching• I can use simple patterns and templates for marking out <p><u>Food</u></p> <p>Focus: Preparing Fruit and Vegetables</p> <p>Project: Fruit and Vegetable Kebabs</p> <ul style="list-style-type: none">• I can talk about what I eat at home and begin to discuss what healthy foods are• I can say where a food comes from and give examples of food that is grown• I can use simple tools with help to prepare food safely. <p><u>Mechanisms</u></p> <p>Focus: Wheels and Axels</p> <p>Project: Moving Toys</p> <ul style="list-style-type: none">• I can create a simple design for my product• I can use pictures and words to describe what I want to do• I can select from and use a range of tools and equipment to perform practical tasks e.g. cutting, shaping, joining and finishing• I can use a range of simple tools to cut, join and combine materials and components safely• I can ask simple questions about existing products and those that I have made• I can build structures exploring how they can be made stronger, stiffer and more stable• I can use wheels and axels in a product |

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| <p><u>Evaluating processes and Products</u></p> <ul style="list-style-type: none"> • Evaluate their product by asking questions about what they have made and how they have gone about it • Evaluate their product by discussing how well it works in relation to the purpose • Evaluate their products as they are developed, identifying strengths and possible changes they might make | |
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Design and Technology Vocabulary Year 1

| <p><i>Textiles</i> Templates and Joining Techniques</p> | <p><i>Food</i> Preparing Fruit and Vegetables</p> | <p><i>Mechanisms</i> Wheels and Axels</p> |
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| <p>Pattern, mark out, decorate, running stitch, needle, fabric</p> | <p>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</p> | <p>Axle, fixed, free, design, make, cutting, joining, hacksaw, vice, dowel, body, cab, shaping</p> |