

Design and Technology LKS2 Year 4/5

Throughout the year the children will cover a variety of aspects of the design and technology curriculum to ensure all children:

- 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.

SMSC

We promote spiritual development:	We promote moral development:	We promote social development:	We promote cultural development:
<p>By enjoying and celebrating personal creativity</p> <p>By reviewing and evaluating created things</p> <p>By developing a sense of resilience through: test, try, refine, succeed, for example through car design, mosaic design</p> <p>By engaging pupils in the roles of JRSO and JPCSO, including designing posters to promote safety, security and well-being.</p> <p>By activities such as designing the school logo and signs, creating connection and belonging.</p> <p>By design a trim trail to be used in school, to promote well-being and purposefulness .</p>	<p>By raising questions about the effect of technological change on human life and the world around them.</p> <p>By working together in mixed ability groups to facilitate discussion and the sharing of ideas.</p> <p>By being committed to after school design clubs.</p> <p>By using DT to learn about how to care for the environment.</p>	<p>By exploring dilemmas that individuals may face and developing practical solutions to these problems</p> <p>By making a contribution to the local society through art works, such as the poppy remembrance.</p> <p>By making communion bread for the annual Eucharist service.</p> <p>By making mince pies for our Christmas gathering of helpers and baking cakes for the Macmillan cake sale and Friends charity events, all of which promote their own contribution to society</p>	<p>By considering cultural influences on design</p> <p>By asking questions about functionality v aesthetics.</p> <p>By gaining an understanding of cultures through food</p> <p>By design and producing cards for celebrations such as Christmas, Mothers' Day etc</p> <p>By making props and costumes for the school nativity and productions.</p> <p>By designing and making: Easter garden, creation story display, flower festivals arrangements, prayer tree for local church.</p> <p>By offering University seminars such as: Print Design, Furniture restoration, Floristry, Banner Design, Food Tech, Cooking without cooking, Construction Instruction By topics that involve designing and creating such as 'Food' or 'Chocolate'.</p>

<p>Autumn</p>	<p><u>Design plan and make</u> (A tool for a purpose)</p> <ul style="list-style-type: none"> • Generate ideas considering the purposes for which they are designing and the user/s • Develop a clear idea of what has to be done, planning, how to use materials, equipment and processes • When planning explain choice of materials and components including function and aesthetics • Select a wider range of tools and techniques for making product safely • Know how to measure, mark out, cut and shape a range of materials using appropriate tools, techniques and equipment • Start to join and combine materials and components accurately in temporary and permanent ways • Start to generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces. (Y5) • Select appropriate materials, tools and techniques e.g. cutting, shaping, joining and finishing, accurately. (Y5)
<p>Summer 1</p>	<p><u>Food and Nutrition</u> (Sandwich Making)</p> <ul style="list-style-type: none"> • Start to Understand how to prepare and cook a variety of savory dishes safely and hygienically including where appropriate the use of a heat source • Know how to use a range of techniques such as peeling, chopping, slicing, grating, mixing, spreading, kneading and baking • Start to understand whether products can be recycled or reused • Start to generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces. (Y5) • Start to understand how much products cost to make, how sustainable and innovative they are and the impact products have beyond their intended purpose. (Y5) • Select appropriate materials, tools and techniques e.g. cutting, shaping, joining and finishing, accurately. (Y5) • Begin to understand that different food and drink contain different substances – nutrients, water and fibre – that are needed for health. (Y5) • Begin to understand that seasons may affect the food available. (Y5)
<p>Summer 2</p>	<p><u>Design plan and make</u> (Mechanisms, levers and linkages)</p> <ul style="list-style-type: none"> • Start to understand that mechanical systems such as levers and linkages or pneumatic systems create movement • Know how mechanical systems such as cams or pulleys or gears create movement • Start to generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces. (Y5) • Select appropriate materials, tools and techniques e.g. cutting, shaping, joining and finishing, accurately. (Y5) • Understand how mechanical systems such as cams or pulleys or gears create movement. (Y5)