



GAINSBOROUGH PRIMARY & NURSERY SCHOOL



SUBJECT OVERVIEW

Design & Technology

Our Design and Technology curriculum follows the purpose and aims of the National Curriculum in England for Key Stages 1 and 2.

Pupils are encouraged to solve real and relevant problems through the design, making and evaluation of products.

Pupils are encouraged to draw on a range of other subjects such as mathematics, science, computing, engineering and art to help them in this area of the curriculum.

Learning about the development of past and present design technology will help our pupils understand its impact on their daily lives as well as in the wider world.

Pupils will learn about the principles of nutrition and healthy eating.

Pupils will learn to take risks and take the first steps to becoming resourceful, innovative, enterprising and capable citizens.

INTENT (AIMS) OF THE DT CURRICULUM

- Perform everyday tasks confidently and begin to participate successfully in an increasingly technological world through the development of creative, technical and practical expertise.
- Design and make high-quality prototypes and products for a wide range of users, using a developing bank of knowledge, understanding and skills.
- 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.

Early Years	Year One	Year Two	Year Three	Year Four	Year Five	Year Six
<p>Exploration with a wide range of materials</p> <p>Some simple drawing for design</p>	<p>DESIGN</p> <ul style="list-style-type: none"> • Design purposeful, functional, appealing products for themselves and other users based on design criteria • Generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology 		<p>DESIGN</p> <ul style="list-style-type: none"> • 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 group • Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design 			
	<p>MAKE</p> <ul style="list-style-type: none"> • Select & use a range of tools & equipment for practical tasks such as cutting, shaping, joining and finishing 		<p>MAKE</p> <ul style="list-style-type: none"> • Select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately • 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>EVALUATE</p> <ul style="list-style-type: none"> • Explore & evaluate a range of EXISTING products • Evaluate their ideas and products against design criteria 		<p>EVALUATE</p> <ul style="list-style-type: none"> • Investigate and analyse a range of existing products • Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work • understand how key events and individuals in design and technology have helped shape the world 			
	<p>TECHNICAL KNOWLEDGE</p> <ul style="list-style-type: none"> • Build structures, exploring how they can be made stronger, stiffer and more stable • Explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products. 		<p>TECHNICAL KNOWLEDGE</p> <ul style="list-style-type: none"> • apply their understanding of how to strengthen, stiffen and reinforce more complex structures • understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages] • understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors] • apply their understanding of computing to program, monitor and control their products. 			
	<p>COOKING & NUTRITION</p> <ul style="list-style-type: none"> • Use the basic principles of a healthy and varied diet to prepare dishes • Understand where food comes from. 		<p>COOKING & NUTRITION</p> <ul style="list-style-type: none"> • Understand and apply the principles of a healthy and varied diet • Prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques • Understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed 			

Early Years	Year One	Year Two	Year Three	Year Four	Year Five	Year Six
Use a range of tools, materials & techniques safely & effectively in play, experimenting with design, form and function.	Create a potato salad using vegetables from the vegetable patch Create fruit kebabs	Taste and select foods to create a healthy breakfast.	Create a greek salad	Melt, cut and shape chocolate to make a model garden (linked to science) Use vegetables grown in the school grounds to make a healthy 'garden' meal on a plate (linked to science)	Make milkshakes and a savoury dish.	Design and make a healthy meal on a budget
Begin to show accuracy and care when drawing.	Design, plan, create and evaluate an anemometer.	Create a fire engine using wheels and axis.	Use electrical systems to create a light up volcano	Create a viking Shaduf using levers and linkages.	Design, plan, create and evaluate an anglo saxon home.	Create a moving light up box to showcase a Famous explorer.
Share their ideas and creations with others, explaining the process they have used.	Create kites, focusing on structure.	Cut and sew a hanging decoration.	Using computer aided design to design Stone age jewellery	Create a Roman Catapult.	Make a mobile phone case.	Design packing for a chocolate bar using computer aided design.