Design Technology Intent "Every great design begins with an even better story." – Lorinda Mamo

At Great Bradfords Junior School, Design and Technology (D&T) serves as a nurturing ground that equips children with life-long skills and empowers them to evolve into the innovators of the world.
With technical knowledge and hands-on learning being taught collaboratively, a range of skills are fostered at GBJS: independence, creativity, critical thinking, adaptability, and collaborative skills.
With design, make and evaluate being the core elements of our learning journey and our school's upholding of working towards excellence through the redrafting and critique steps, we aim to reinforce a growth mindset where testing, challenges, mistakes, and evaluations are seen as further opportunities for improving our children's learning outcomes. Through this, children develop broader understanding of their implications of decision making and designing.
Children at Great Bradfords Junior School discuss the subject with passion and excitement! Through enriching projects, children get the chance to showcase real-life, meaningful history, design engaging products, develop cooking skills through innovative recipe creations and engage in experiential learning by performing in competitions and show casing their skills and accomplishment to an audience of learners and experts, who are simply left in awe!

Procedural Knowledge: **Skills** the children develop when learning about Design and Technology

- 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.

Disciplinary Knowledge: **knowledge** the children will learn to develop excellence in Design and Technology

	Year 3/4	Year 5/6
Design		
	Use research to develop designs Develop innovative, functional and appealing products that are designed for a particular purpose	Use research and develop criteria to inform design Develop innovative, functional and appealing products that are aimed at particular individuals or groups

	Generate, develop and communicate ideas through discussion with others Use annotated sketches, prototypes, pattern pieces and technology to generate, develop and communicate ideas.		Generate, develop, and communicate ideas through discussion, actively seeking the views of others. Use annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and technology to generate, develop, model and communicate ideas.	
Make	Select a wider range of tools and techniques for making their own product. Explain their choice of tools and equipment in relation to the skills and techniques they will be using. Start to work safely with a range of simple tools. Measure, mark out, cut, score and assemble component with more accuracy.	Select a wider range of tools and techniques for making their product safely. Know how to measure, mark out, cut and shape a range of materials using appropriate tools, equipment and techniques.	Select appropriate materials, tools and techniques (eg cutting, shaping, joining and finishing) accurately. Begin to measure and mark out more accurately With growing confidence apply a range of finishing techniques, including those from art and design	Accurately apply a range of finishing techniques, including those from art and design Plan the order of their work, choosing appropriate materials, tools and techniques Confidently select appropriate tools, materials, components and techniques and use them
Technical knowledge	Apply understanding of how to strengthen, stiffen and reinforce more complex structures Understand and use mechanical systems in	Understand and use electrical systems in their products (incorporating switches, bulbs, buzzers and motors)	Understand and use mechanical systems in their products (gears, pulleys, cams)	Apply their understanding of computing to program, monitor and control their products Sewing – using running stitch, blanket stitch, include seam allowance, use pattern pieces

	their products (levers, linkages, pneumatics)	Sewing – using running stitch, become aware of seam allowance, use pattern pieces		
Cooking and nutrition	Understand and apply the principles of a healthy and varied diet (Science link) Prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques		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	
Evaluate (critique)	Investigate and evaluate a range of existing products Evaluate their ideas and products against design criteria and seek the views of others to improve their work Understand how key events and individuals in design technology have helped to shape the world		Investigate and analyse a range of existing products based on functional and aesthetic qualities Evaluate their ideas and products against their own design criteria Actively seek and consider the views of others to improve their work Analyse how key events and individuals in design technology have helped to shape the world.	

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