

Design and Technology Key Stage 3 Curriculum

Year 7	Project 1	<p>At Key Stage 3, students build on their prior experiences to deepen their understanding of the design process. They are introduced to the safe and correct use of a variety of materials, tools, and techniques, which are essential for developing practical skills in their chosen discipline. Throughout the project, students enhance their ability to research, design, create, and evaluate their work.</p> <p>They explore how to research and how designers and their work can inspire and shape future projects. Additionally, students develop skills in presenting their ideas effectively through sketchbooks, while learning to incorporate multiple sources of research to inform their designs and manufacturing processes. They also practice discussing and presenting their work, which helps build their confidence in communicating design ideas.</p>	Food Students learn to produce a range of increasingly more complex foods and dishes; savoury and sweet. They learn about the core principles of good food hygiene including hazard awareness, cross contamination, and temperature control. Additionally, students learn the fundamentals of making good food choices through the introduction of the 'eat well guide' and how to read and understand food labelling including allergens/nutritional information. Students, research the 'eat well guide' and undertake assessment in making.	Graphics Students are introduced to Graphic Design through a range of activities linked to Typography and the theme of 'Identity'. They learn about the 'Art of Lettering', exploring how type is used to convey messages and enhance meaning, including the main categories of fonts and how to select the most appropriate typefaces. They develop skills in the use of typography through experimenting with timesteps, colour, imagery and a range of graphic media. Students research the theme of 'Identity' and produce a mood board to represent their own individuality, from which they generate design ideas for their final piece (their initial in 3D). They use a variety of tools, materials and processes, including cardboard engineering, laser cutting, and mixed media collage to create a quality graphic product.	Product Design Students design and make a Robot Desk Organiser. They are introduced to Health & Safety in the workshop and PPE. They use hand tools - Tenon Saws and Coping saws. They use machines to help drill and shape their robot - disc sander, belt sander, bobbin sander and a variety of pillar drills. Students use glass paper to smooth their Robot and Acrylic paint to decorate it. They see the CNC laser machine in action creating the robot eyes.
	Project 2	<p>In this next project, students will take on more challenging tasks as they work to embed the skills and understanding developed in previous projects. They will begin by recapping essential health and safety procedures, ensuring they can work confidently and safely with a broader range of materials, tools, and processes.</p> <p>Students will further develop their ability to analyse their own work and that of others, using a range of research sources to inform their designs. This project places a greater emphasis on the importance of research, encouraging students to explore more complex methods and critically evaluate how designers and various influences shape their work. They will learn how research not only influences design but also the construction and manufacturing processes, helping them make more informed decisions.</p> <p>Using the experience gained from project one, students will produce their final designs, applying the knowledge they have accumulated to create work that demonstrates a higher level of precision, creativity, and innovation. This process of critical reflection and refinement will help them build stronger problem-solving abilities and deepen their understanding of the design process.</p>			
	Project 3	<p>In this project, students will be expected to demonstrate greater independence and mastery of the design process, applying previously acquired skills with greater confidence and accuracy. The complexity of tasks will increase, requiring them to work safely and effectively with a range of materials, tools, and techniques to produce high-quality results. Students will advance their research skills, utilising a broader range of up-to-date sources, critically evaluating their relevance to design decisions, and summarising findings concisely. They will learn to create visually engaging, well-referenced research, interpreting how it informs their design process.</p> <p>The ability to analyse and justify their thoughts on the work of others will be refined, with detailed annotations and problem-solving strategies integrated into their design work. This project will solidify their ability to create a high-quality finished product from their own detailed plans, highlighting both creativity and technical skill.</p>			
	Project 4	<p>In this project, students will learn how to generate a wide range of creative ideas and select a final outcome that aligns with a design brief. They will explore how to annotate their designs effectively, using colour to add</p>			
Year 8	Project 4	<p>In this project, students will learn how to generate a wide range of creative ideas and select a final outcome that aligns with a design brief. They will explore how to annotate their designs effectively, using colour to add</p>	Food	Graphics	Product Design

		<p>detail and enhance their work. Students will also be introduced to creating accurate technical lists, including weights, dimensions, materials, or ingredients, to ensure their designs are fully informed by subject-specific details. Additionally, they will develop the ability to write basic manufacturing instructions, helping to understand the practical steps involved in bringing their designs to life. Research will play a key role in guiding their design decisions, with students learning how to integrate this into their work to improve the quality and success of their outcomes. Building on what they learned in Year 7, this project will help deepen their understanding of the design process and the skills required to move from concept to final product.</p>				
	Project 5	<p>In this project, students will build upon their previous skills by generating a wide range of high-quality ideas and selecting a final outcome that aligns with a design brief. They will enhance their ability to annotate designs and use colour to add greater detail and clarity. Additionally, students will create accurate technical lists, including weights, dimensions, materials, or ingredients, while also identifying suitable alternatives to demonstrate flexibility in their design thinking. Students will learn to write complete and detailed manufacturing instructions, further refining their practical understanding of how to bring their designs to life. This project introduces them to the concept of working for a 'client' rather than designing for themselves, requiring them to conduct an interview to understand the client's preferences. This will deepen their ability to design with specific goals in mind, developing their professional design skills and increasing their ability to work to a brief with greater precision and attention to detail. Sketchbooks will evolve into tools for articulating ideas and clearly present ideas</p>				
	Project 6	<p>In this project, students will further refine their design skills by confidently generating a wide range of specific ideas and justifying their final outcome with clarity. They will learn to annotate and render their ideas in detail, displaying their growing skills and creative flair. Additionally, students will create accurate technical lists, including weights, dimensions, materials, or ingredients, and suggest specific alternatives with justifications, demonstrating a deeper understanding of design choices. Students will also focus on writing complete and accurate manufacturing instructions that can be confidently followed by a third party. This project will solidify their ability to work effectively to a design brief, encouraging them to collect information from a variety of resources and present their work in a visually structured and stimulating way. As part of their learning, students will reflect on their process and adapt a recipe, applying their knowledge to real-world design challenges.</p>				
	Project 7	<p>In Year 9, students will focus on enhancing their application of the design process, with a particular emphasis on evaluation and its role in improving the quality of their work and outcomes. They will develop their ability to discuss what went well in their projects and identify areas for improvement, leading them to suggest</p>				
Year 9	Project 7		Food	Graphics	Product Design	Textiles

appropriate ways to enhance their final outcomes. Students will consider the end user of their products, supporting their findings with evidence to implement necessary improvements. They will learn to anticipate potential issues and adapt their designs accordingly. Additionally, students will confidently measure the success of both their final outcomes and the making process. Throughout the project, students will engage with the iterative process more extensively, with evaluation occurring almost every lesson. This ongoing reflection will help them justify and develop their concepts, fostering a deeper understanding of how continuous evaluation can drive better design solutions.



Project 8

In this project, students will learn to explain both the successes and areas confidently and accurately for improvement in their work. They will articulate specific ways to enhance their outcomes, drawing on feedback from users and supporting their findings with evidence and data. Students will learn to suggest improvements based on this evidence and describe precisely how they would implement these changes. As they progress, students will develop the ability to anticipate potential issues in their designs and adapt their approaches with increasing success. They will also summarize what their peers have done well, reflecting on how these insights can be applied to their own projects. Students will confidently measure the success of both their final outcomes and the making process, reinforcing their understanding of evaluation as a critical component of the design process.



Project 9

In this project, students will confidently and accurately evaluate their work, explaining what went well and identifying areas for improvement. They will provide specific examples to support their findings and outline clear ways to enhance their outcomes. Students will also gather and analyse user feedback about their outcomes, backing their explanations with evidence and data. They will suggest specific and appropriate improvements based on this feedback, detailing how these changes could enhance their final products. As they progress, students will summarize the strengths of their peers' work and reflect on how these insights can be applied to their own projects. They will learn to predict potential issues in their designs and adapt as needed, demonstrating increasing adaptability. Finally, students will confidently measure the success of both their final outcomes and the overall making process, reinforcing the importance of evaluation in the design journey.

Key Stage 4 – GCSE's!

Building on the foundations from Year 7 and 8, students use Year 9 to explore food on a wider level. They learn about how food choices impact on health and gain an understanding into energy balance, macro & micro nutrition. Students explore the needs of different groups of people and look at a range of diet related health problems. Finally, students design and make a product for a chosen group of people.

Students are given the opportunity to work with others in small groups, or as individuals, to design a logo for a new band or solo artist. The logo will appear in the design of a vinyl album cover and merchandise. They work independently to select and experiment with appropriate graphic media, tools and processes to realise their intentions and to create a range of products that are consistent across a brand. They will be able to describe familiar products using subject specific language and develop skills that will support their move towards GCSE.

Students work in small teams to design and make a new 'Childs Toy'. Students recap H&S and PPE. All students are designing products to encourage independence before option choices and ultimately GCSE NEA. Students can use any of the tools, equipment, machinery that they have used in yr7/8. Students will be introduced to new equipment where necessary.

Students will design and make an equipment roll. They explore the limitations of their sewing machine and the process of applique to allow the student to challenge themselves whilst making. Students will learn how to use paper patterns and how to organise cutting material out to make best use of the fabric. They gain ironing skills and take on independent working skills.