



# St Joseph's College Subject Curriculum Map: DT

## Curriculum Intent

At St Joseph's College we believe a robust Technology curriculum equips our young people to develop and grow into well-rounded global citizens. Our KS3 curriculum is coherently planned and adapted to ensure we meet the individual needs of all our students whilst offering a breadth of study that is sequential in leading to both KS4 and 5 study. We aim to develop our students' digital skills that aids removal of barriers to learning and helps promote their independence through a curriculum that is designed sequentially from KS3 to KS5.

Cross curricular links are evident with other subjects such as English, Maths and Science, so students can develop effective literacy and numeracy skills through digital technology. This leads to our young learners to become confident and competent readers, writers, and speakers, whilst developing important analytical skills required for an ever-changing and competitive world. Students are challenged and stretched by developing their leadership, organisation, resilience, initiative, and communication skills to provide foundations for every aspect of school life and beyond. We encompass the whole school core values throughout our curriculum to maximise its impact.

At KS3 we offer Product Design, where we ensure our students are exposed to a wide range of materials, processes, and techniques, for example: wood joints, CAD programs, laser cutting, shaping of plastics and woods to allow students to gain a varied experience. We guide students to research different design movements, read relevant texts, develop descriptive writing, and articulate ideas and solutions whilst developing listening skills to enhance our students' ability to communicate effectively in the real world. The curriculum provides students with the skills to work and respond independently and build resilience through designing and making. A range of projects are taught over the three years, that will offer students the opportunity and experience to explore and use various materials and techniques and progress to KS4 GCSE DT and KS5, BTEC Engineering. This in turn helps to ensure our students have an educational experience that is rich and varied. We consistently use prior knowledge and understanding to help students to follow the design cycle of researching, designing, making, evaluating which helps to embed the knowledge in each stage of every project. Students are challenged and stretched by developing their leadership, organisation, resilience, initiative, and communication skills to provide foundations for every aspect of school life.

	Year Group	Autumn Term		Spring Term		Summer Term	
		Half Term 1	Half Term 2	Half Term 3	Half Term 4	Half Term 5	Half Term 6
Key Stage 3	7	<b>Tropical Birds Project</b> Pupils will learn about the importance of Tropical/Birds on our environment/Eco-System. Workshop Health & Safety. Learn how to research, design, and make to a Set Design Brief. Learn about Woods as a resistant material and explore its properties and characteristics.	<b>Tropical Birds Project</b> Pupils will learn about 4 Simple types of Motion. Correct use of Tools and processes when working with wood. Produce a Moodboard, researching the main theme for the Project.	<b>Tropical Birds Project</b> Students will produce a range of Designs for the Project (souvenir), make a prototype of the final design and carry out an evaluation of their work reflecting on their achievements and efforts throughout the Project. (Classes are Rotated at the Mid - Spring HT Break.)	<b>Tropical Birds Project</b> Pupils will learn about the importance of Tropical/Birds on our environment/Eco-System. Workshop Health & Safety. Learn how to research, design, and make to a Set Design Brief. Learn about Woods as a resistant material and explore its properties and characteristics.	<b>Tropical Birds Project</b> Pupils will learn about 4 Simple types of Motion. Correct use of Tools and processes when working with wood. Produce a Moodboard, researching the main theme for the Project.	<b>Tropical Birds Project</b> Students will produce a range of Designs for the Project (souvenir), make a prototype of the final design and carry out an evaluation of their work reflecting on their achievements and efforts throughout the Project. (Classes are Rotated at the Mid - Spring HT Break.)
	8	<b>Lantern Project</b> Pupils will explore nature and how to design with nature as inspiration, using natural forms and a corresponding range of materials, techniques and processes that help develop their skill, knowledge and understanding in DT	<b>Lantern Project</b> Pupils will explore workshop Skills and Techniques through Sampling Presentation.	<b>Lantern Project</b> Students will produce a range of Designs for the Project (Panel Designs), integrating the use of drawing, written annotation and analysis of the final outcome, make and carry out an evaluation of their work reflecting on	<b>Lantern Project</b> Pupils will explore nature and how to design with nature as inspiration, using natural forms and a corresponding range of materials, techniques and processes that help develop their skill, knowledge and understanding in DT	<b>Lantern Project</b> Pupils will explore workshop Skills and Techniques through Sampling Presentation.	<b>Lantern Project</b> Students will produce a range of Designs for the Project (Panel Designs), integrating the use of drawing, written annotation and analysis of the final outcome, make and carry out an evaluation of their work reflecting on

		<i>making a connection with the works of artists and Product Designers.</i>		<i>their achievements and efforts throughout the Project. (Classes are Rotated at the Mid - Spring HT Break.)</i>	<i>making a connection with the works of artists and Product Designers.</i>		<i>their achievements and efforts throughout the Project. (Classes are Rotated at the Mid - Spring HT Break.)</i>
	9	<b>What's in the Box Project</b> <i>Pupils will Recap Health and safety in the workshop in preparation for GCSE. Pupils will set themselves targets of achievement for the project based on Customer needs &amp; existing product research showing a clear understanding between a Clients Brief and a Design Brief. Pupil will write their own Design Briefs and specification list. And analyse using ACCESSFM</i>	<b>What's in the Box Project</b> <i>Pupils will understand analyse and compare Different types of Material (Wood/ Plastics) and different types of wood joints (Finger Joints).</i>	<b>What's in the Box Project</b> <i>Pupils will develop and demonstrate their practical skills by making their finger joint samples. Developing their understanding of the correct use of a range of tools and processes to build upon their confidence in manufacture/ production. Finally, students evaluate and test against specification. (Classes are Rotated at the Mid - Spring HT Break.)</i>	<b>What's in the Box Project</b> <i>Pupils will Recap Health and safety in the workshop in preparation for GCSE. Pupils will set themselves targets of achievement for the project based on Customer needs &amp; existing product research showing a clear understanding between a Clients Brief and a Design Brief. Pupil will write their own Design Briefs and specification list. And analyse using ACCESSFM</i>	<b>What's in the Box Project</b> <i>Pupils will understand analyse and compare Different types of Material (Wood/ Plastics) and different types of wood joints (Finger Joints).</i>	<b>What's in the Box Project</b> <i>Pupils will develop and demonstrate their practical skills by making their finger joint samples. Developing their understanding of the correct use of a range of tools and processes to build upon their confidence in manufacture/ production. Finally, students evaluate and test against specification. (Classes are Rotated at the Mid - Spring HT Break.)</i>
		<b>End of Term Rotation</b> <i>Students spend one and a half terms in Food Technology, then they rotate within DT to another subject area.</i>					
Key Stage 4	10	<b>NEA Design Technology</b> <i>Pupils are introduced to NEA Design Technology Format. They are required to identify and investigate design Possibilities (Problem Analysis) for a chosen Design Task/Challenge. Within this, students are required to identify the problem, investigate the work of others, produce Mind Maps of the clients' needs, conduct Technical Research, and evaluate the social and environmental impacts of their chosen Products.</i>	<b>NEA Design Technology</b> <i>Pupils are required to produce a compliant Design Brief and Specification list for their chosen product to manufacture (using ACCESSFMM).</i>	<b>Introduction to Drawing Techniques</b> <i>Isometric, Oblique, Orthographic, Exploded and 1 &amp; 2 Point Perspective drawings</i>	<b>Introduction to Drawing Techniques</b> <i>Isometric, Oblique, Orthographic, Exploded and 1 &amp; 2 Point Perspective drawings. Importance of annotation and presentation emphasised. CadDrawings (2D Techsoft) and CAM highlighted and emphasised.</i>	<b>Theoretical aspects of Design Technology</b> <i>This will be Taught on alternate weeks throughout the remaining terms. This will include working through GCSE AQA 1-9 DT Booklet.</i>	<b>NEA Design Technology</b> <i>Pupils are re- introduced to NEA Design Technology Format. They are required to identify and investigate design possibilities for a chosen Design Task/Challenge. Within this, students are required to identify the problem, investigate the work of others, produce Mind Maps of the clients' needs, conduct Technical Research, and evaluate the social and environmental impacts of their chosen Products.</i>
	11	<b>NEA Design Technology</b> <i>Pupils are re- introduced to NEA Design Technology Format. They are required to identify and investigate design possibilities for a chosen Design</i>	<b>Initial, Developed and Final Design ideas</b> <i>Modelling all Compliant Drawing Styles and presentation techniques to be applied to NEA Portfolio.</i>	<b>NEA Design Technology</b> <i>Pupils are required to have completed their NEA Portfolios and Completed Technical Drawings, Manufacturing Specs. Diary of manufacture, Final</i>	<b>Theoretical aspects of Design Technology</b> <i>This will be Taught on alternate weeks throughout the remaining terms. This will include</i>	<b>Revision and Final Project Completion/ Submission</b>	<b>Exams</b>

	<i>Task/Challenge. Within this, students are required to identify the problem, investigate the work of others, produce Mind Maps of the clients' needs, conduct Technical Research, and evaluate the social and environmental impacts of their chosen Products.</i>		<i>Prototype, Test against specification, Client Testing and Possible modifications and improvements.</i>	<i>working through GCSE AQA 1-9 DT Booklet.</i>		
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