



Year 11 Curriculum intent

Provide students with the opportunity to develop a broad knowledge and understanding of Design and Technology. Students will be able to develop their problem-solving abilities through critical thinking and a variety of approaches to design and making scenarios. They will build resilience when things go wrong and be able to analyse their own work to understand how to develop and improve. Students develop their understanding through the complete study of core theory and a specialism both timbers and polymers. Using their detailed knowledge, students then complete their Non-exam assessment in which they respond to a contextual challenge via research, design, making and evaluating.

Year 10 Curriculum Overview

Term 1	Term 2	Term 3	Term 4		
NEA	NEA	NEA	Revision		

Key Question

How do designs produce their ideas?	What is the best way to make my product?	Why do I have to test and evaluate my design?	How do I apply my knowledge into answering an exam question?		
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Key Vocabulary

Investigation Aesthetics Ergonomics Commercial Specification Mood board	Development Jig Template Model Test Manufacturing plan Cutting list Quality control	Test Specification Modify Evaluate	State Identify Define Describe Explain Discuss Evaluate		
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	The knowledge you will need to recall:	How you will apply this knowledge:	This links to:
1	- The principles of investigation and analysing a brief. - How to look and primary and secondary research to help you solve a problem - How to analysis the research and create a specification from it. - How to use the specification and research to create a range of ideas that solve the problem.	- Pupils will answer short questions that covers the information they have learnt. - Pupils will do some testing of materials and grade them. - Pupils will do a practical task to test the strength of materials and structures. - Pupils will complete an expert and powerful knowledge quiz.	This unit builds on foundational skills acquired in year 7 regarding working with timbers and in year 9 regarding the work on polymers. This feeds into both design and making ability and links directly to GCSE.
2	- The principles of where timber comes from. - The different categories of timber and what they are used for. - The principles of working safely in a woodwork room. - The principles of using tools and equipment safely. - The different types of wood joints that they can use and why they would use them. - Industrial processes that can be used to produce parts.	- Pupils will apply their knowledge to short recall extended writing questions. - Pupils will use their knowledge of Timbers to create a wooden box with different wood joints. - Pupils will use their knowledge of the refine and test process to review their product against the original specifications. - Pupils will use their knowledge to explain how industrial techniques could be used to create the joints.	This unit builds on foundational skills acquired in year 7 regarding working with timbers, year 8 clocks and in year 9 regarding the work on polymers and mechanisms. This feeds into both design and making ability and links directly to GCSE.
3	- The principles of where polymers come from and how they are made. - The different categories of polymers. - Industrial processes used to create plastic products. - The principles of working safely in a woodwork room. - The principles of using tools and equipment safely. - The principles of using CAD CAM to help produce a product and why they would use it.	- Pupils will apply their knowledge to short recall extended writing questions. - Pupils will use their knowledge of polymers and create a mobile phone holder. - Pupils will use their knowledge of the refine and test process to review their product against the original specifications. - Pupils will use their knowledge to create parts by CAD CAM. - Pupils will complete an expert and powerful knowledge quiz.	This unit provides the foundational knowledge and skills learnt in Year 7 CAD CAM unit and year 8 mood light, design movements unit and in year 9 looking at polymers. It also prepares the students for GCSE Design and Technology.
4	- Why and how Industrial processes are used to create products. - The different types of industrial processes that can be used for different materials. - The principles of using Jigs and Templates to help speed up and improve the quality of a product.	- Pupils will apply their knowledge to short recall extended writing questions. - Pupils will investigate and complete work sheets on industrial processes. - Pupils will use their knowledge to produce a jig and template to make a coat hook. - Pupils will use their knowledge to create parts by CAM. - Pupils will complete an expert and powerful knowledge quiz.	This unit provides the foundational knowledge and skills learnt in Year 7 CAD CAM unit and year 8 mood light, design movements unit and in year 9 looking at polymers. It also prepares the students for GCSE Design and Technology.