



Year 7 Curriculum Intent

Students will be able to combine graphical and practical skills with an understanding of aesthetic, social and environmental issues, as well as functions and industry. We want them to be able to reflect on and evaluate past and present technology, its uses and impacts and, wherever possible, to link their work to other disciplines such as mathematics, science, engineering, computing and art.

Year 7 Curriculum Overview

Topic 1	Topic 2	Topic 3	Topic 4	Topic 5
CAD CAM	Food	Electronics	Timbers	Graphics
Key Question				
What is the advantage to industry using CAD CAM instead of handmade items? ??	How do I create a safe working environment in the food room?	How do electronic product work? How are electronic products manufactured?	How is timber created from the primary source to the stock forms?	What is an Architect?
Key Vocabulary				
1. Computer Aided Design 2. Computer Aided Manufacture 3. Repeat process 4. Automated 5. Refine 6. Test	1. A Risk 2. A Hazard 3. Control Measure 4. Radiation 5. Conduction 6. Convection	1. Input 2. Output 3. Parallel Circuit 4. Series Circuit 5. Repeat process. 6. Solder	1. Softwood 2. Hardwood 3. Man made board 4. Permanent joint 5. Lap Joint 6. Pine	1. 2-point perspective 2. Architect 3. Specification 4. Iterative 5. Modelling 6. Prototype

	The knowledge you will need to recall:	How you will apply this knowledge:	This links to:
1	- The basic principles of CAD and CAM - The advantages and disadvantages of using CAD and CAM - Examples of how and why CAD and CAM are used by industry. - The process of refining and testing products	- Pupils will apply their knowledge to short recall extended writing questions. - Pupils will use their knowledge of CAD to create a ruler using product specifications. - Pupils will use their knowledge of the refine and test process to review their product against the original specifications.	This unit provides the foundational knowledge and skills to be further developed in our 'moodlight' unit in year 8. This is then returned to in our year 9 CAD topic and prepares the students for GCSE Design and Technology.
2	- The basic principles of Health and safety in the food room. - The basic principles of using a Knife safety. - The basic principles of using the different parts of the oven. - The basic principles of weighing and measuring. - The basic principles of evaluating food and techniques	- Pupils will apply their knowledge to short recall and extended writing questions. - Pupils will use their knowledge of knife skills to create different dishes each week - Pupils will use their knowledge of the cooking equipment to make different dishes each week - Pupils will evaluate each week the food they make and how they could improve it	This unit provides the foundational knowledge and skills to be further developed in our food unit across KS3 and prepares the students for GCSE Food and Nutrition.
3	- The basic principles of electronics, parallel circuits and series circuits - The basic skills required to manufacture a PCB - The basic skills required to manufacture with polymer and metal - The basic skills requires assemble an electronic product - The process of testing, repairing and evaluating electronic products.	- Pupils will apply their knowledge to short recall and extended writing question. - Pupils will use their knowledge and skills to manufacture an electronic circuit - Pupils will use their knowledge and skills to manufacture a HIPs base, metal track and metal hook - Pupils will use their knowledge and skills to assemble all parts to create a steady hand game - Pupils will use their knowledge of the refine and test process to review the parts of their steady hand game and final steady hand game product.	This unit provides the foundational knowledge and skills to be further developed in our 'moodlight' unit in year 8. This prepares the students for GCSE Design and Technology.
4	- The basic principles of where timber comes from. - The different categories of timber. - The basic principles of working safely in a woodwork room. - The basic principles of using tools and equipment safely.	- Pupils will apply their knowledge to short recall extended writing questions. - Pupils will use their knowledge of Timbers to create a wooden box. - 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	This unit provides the foundational knowledge and skills to be further developed in our 'Design Movements' unit in year 8 and 'mechanisms' unit in year 9. it also prepares the students for GCSE Design and Technology.
5	- The basic principles of 2-point perspective. - Who Norman Foster is and the buildings he has made. - Examples of Norman Fosters buildings. - The style and materials that are mainly used.	- Pupils will use their knowledge of 2-point perspective to draw some different designs. - Pupils will apply their knowledge to short recall extended writing questions. - Pupils will use their knowledge of Norman Fosters designs to create a bus stop using product specifications. - Pupils will use their knowledge of the refine and test process to review their product against the original specifications.	This unit provides the foundational knowledge and skills covered in the graphics unit in year 8. This is then returned to in our year 9 Graphics topic and prepares the students for GCSE Design and Technology.