

St. Aidan's Catholic Academy

Y10 Design Technology

Term	Curriculum Content	Suggest Reading or Extension Activities
Autumn 1	CAD/CAM Students will learn how to draw in 2D and 3D using computer software. Third angle orthographic drawing will be a key focus, as well as using Google Sketch-up and drawing to scale.	Downloading Google Sketch-up (it's free) on home computer would allow students to practice with the software at home. Regular one to one feedback will provide students with personalised targets to suit each learners needs.
Autumn 2	Specialist techniques Students will investigate specialist techniques used in industry, such as material shaping, QA & QC, production aids, and working to tolerances.	AQA GCSE (9-1) Design & Technology: All Material Categories and Systems. Author: Bryan Williams. ISBN-10: 1510401083
Spring 1	Upcycling Students will use redundant products and parts to design and make an upcycled product they can use at home.	Pinterest. It has a vast range of images of unique products which can be used for inspiration. Collect materials which have interesting shapes, colours and textures, or are destined for the bin which can be used to produce a high quality upcycled product.
Spring 2	Surface Treatments An in-depth and practical investigation into surface treatments on different materials. Students will use various treatments to develop a better understanding of their advantages and disadvantages.	AQA GCSE (9-1) Design & Technology: All Material Categories and Systems. Author: Bryan Williams. ISBN-10: 1510401083
Summer 1	Character phone holder Students will design and make a small, wooden mobile phone holder which incorporates a character, animal or comic image.	Pinterest. It has a vast range of images of unique products which can be used for inspiration.
Summer 2	Design presentation Students will practice a range of drawing techniques in preparation for starting their major project.	Students will require drawing equipment. This includes some good quality drawing and colouring pencils and basic drawing equipment such as a compass, set squares and a protractor. These can then be used at home to practice techniques.

Term	Assessment Tasks
Autumn 1	Submit CAD/CAM drawings for assessment in a powerpoint presentation. A third angle orthographic drawing of a specific object is essential.
Autumn 2	Investigate various specialist techniques found in product design. Assessment will be a mock exam to check understanding.
Spring 1	Design and build a product made from salvaged materials from other products. A folder of design ideas will be also be required.

Spring 2	Submit a written report on which finishes are suitable for which materials. This must include evidence of testing the finishes and photographs of the results.
Summer 1	Design and build a character mobile phone holder in timber. Include a detailed plan of manufacture which shows evidence of quality assurance and quality control checks.
Summer 2	A folder of various styles of drawing done to a high quality. Some will also show good use of colour and shading.

Parents /Carers can help their child by:	Checking what homework has been given, checking it has been done and reading through it when complete. Supplying students with drawing and writing equipment would be beneficial. This includes some good quality drawing and colouring pencils and basic drawing equipment such as a compass, set squares and a protractor.
Useful websites	http://www.technologystudent.com/ http://www.bbc.co.uk/schools/gcsebitesize/design/
Revision Sources	http://www.technologystudent.com/ http://www.bbc.co.uk/schools/gcsebitesize/design/
Extra Curricula Activities	Practice shaping materials if facilities are available at home. Practice drawing techniques covered in lessons.

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