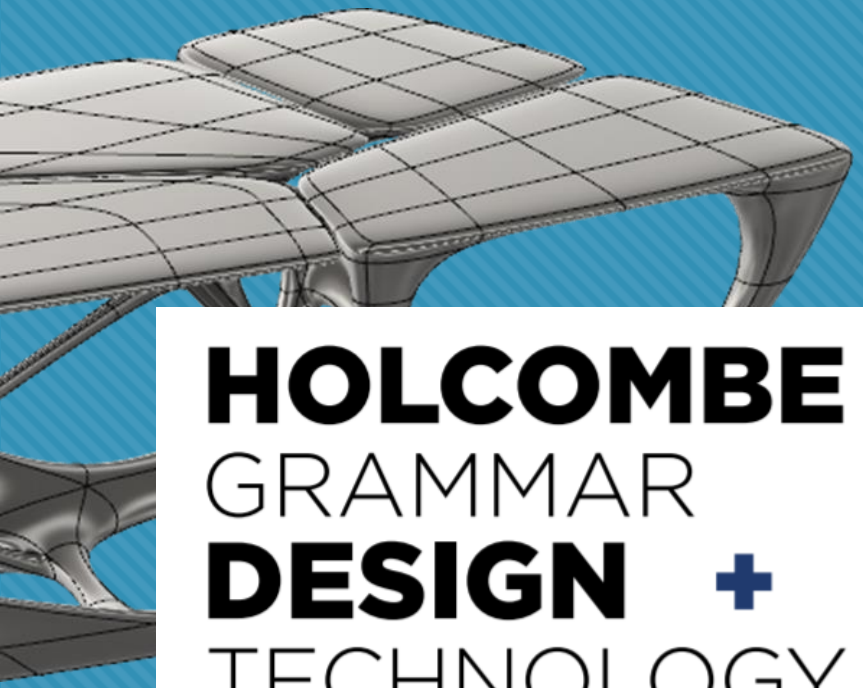

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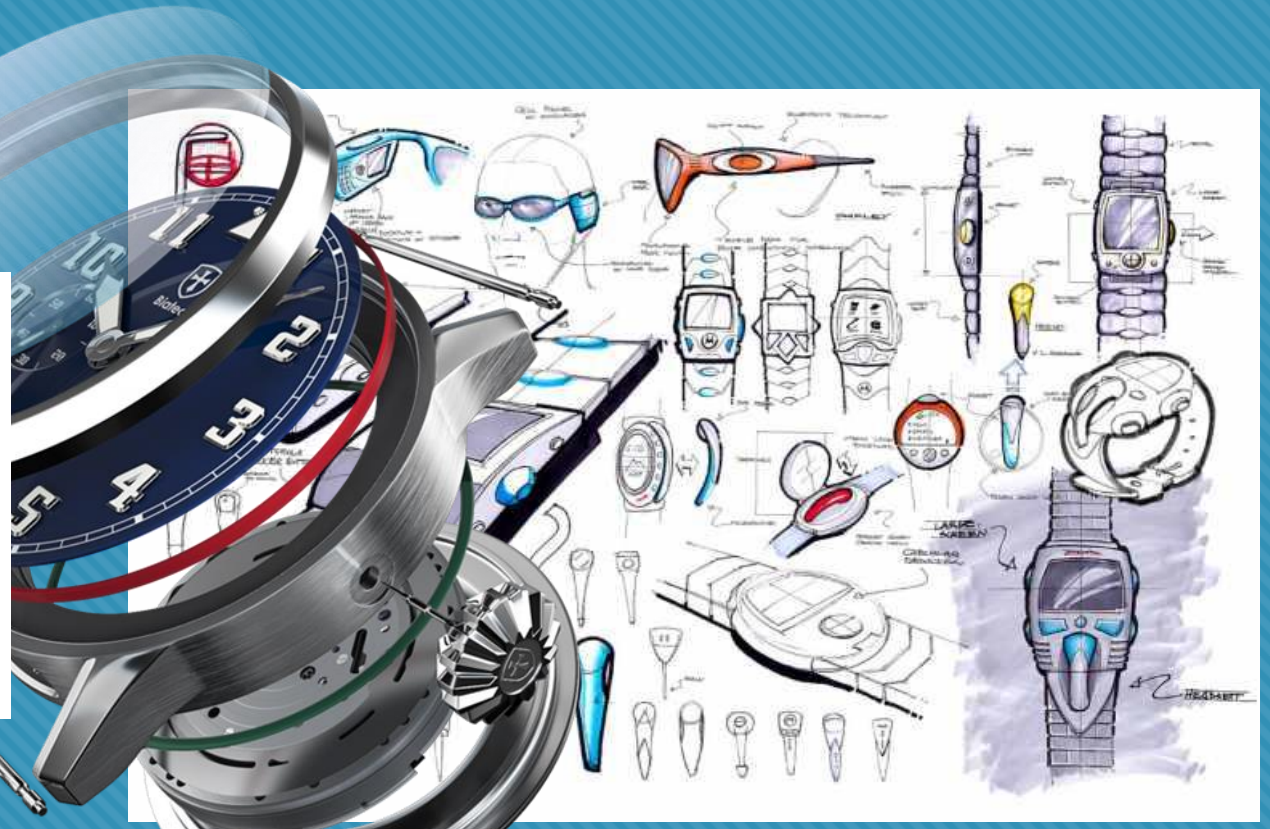
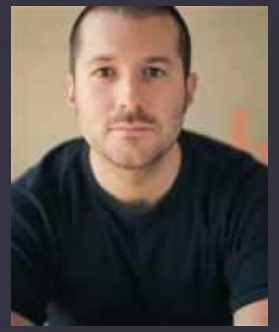


Design, Create and Solve the problems of tomorrow.

eduqas
Part of WJEC

Why do Design Technology? Because we are good at it! *Here are two examples*



Jonathan Ive - Is the British Designer that saved Apple his designs for the Desk top computer stopped the company from going bust. He is now the Chief designer for Apple. Ive is the designer of many of Apple's products, including the MacBook Pro, iMac, MacBook Air, iPod, iPhone, iPad, Apple Watch

James Dyson - Is the British product designer that took on the whole industry with his own innovative designs. He now runs one of the biggest design company's in great Britain and through his innovation has totally revolutionised both the hoover sector but also hand dryers, floor fans etc

The Course Aims, Information

Design Technology GCSE Course Aims

Year 10
The course teaches students how to solve real world problems and be an all-round designer through them learning a tool kit of practical processes, machinery, materials, CAD software and CAM processes. This allows the students to tailor their creative journey by being able to identify the correct processes and materials to solve the problems they set out in their own design briefs. Students will learn about emerging technologies, modern and smart materials, composite materials and technical textiles, electronic systems and mechanical devices. The specification encourages learners to use creativity and to be confident to explore their own imagination. The course enables learners to identify market needs and opportunities for new products, initiate and develop design solutions and make and test prototypes.

Year 11
Students are offered a range of design contexts to explore before leading to a personalised design brief. The design brief allows students to take their own creative journey to solve identified problems. It promotes a truly creative path of CAD modelling, rapid prototyping and iterative mix media designing. This leads to a unique outcome that is project managed to a fully operational prototype stage and is supported by precise technical drawings and a progressive evaluation leading to suitable improvement possibilities. They will develop an awareness of practices from the creative, engineering and manufacturing industries.

How will you be assessed?

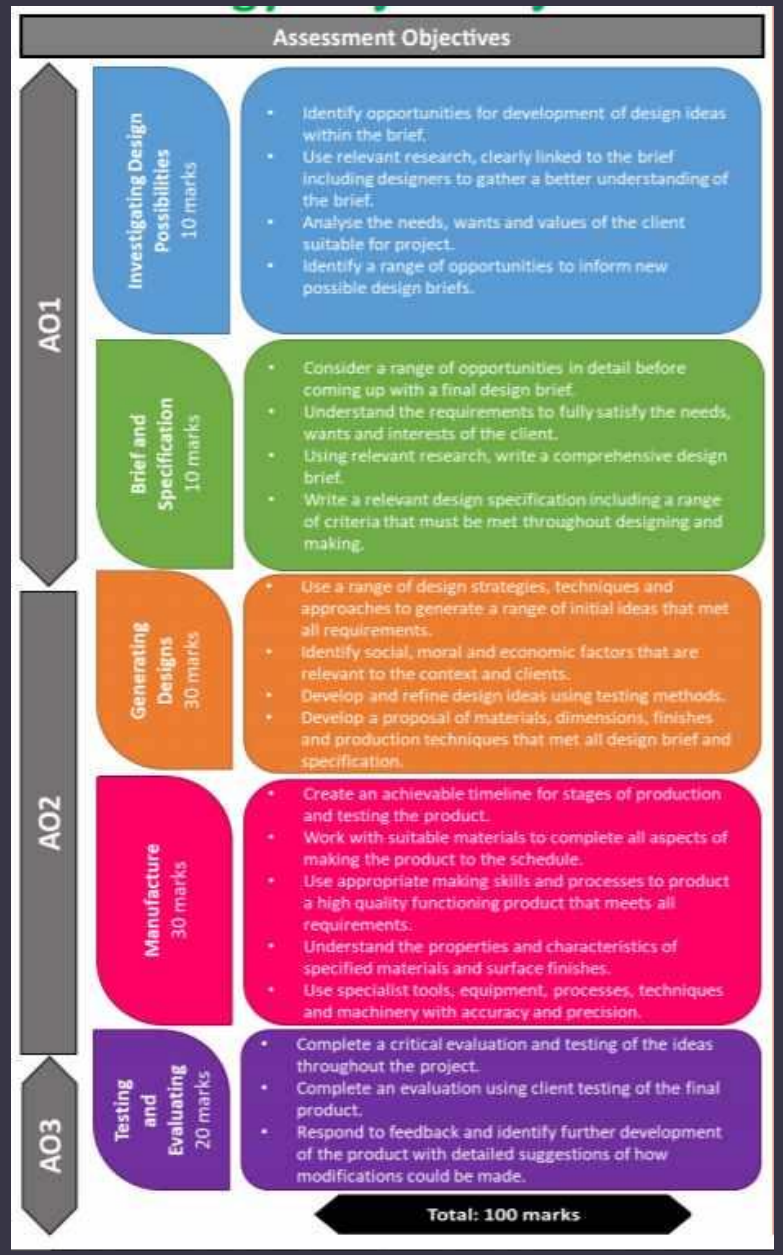
Component 1: Exam, 2 hour examination – 50% of GCSE
Component 2: Design, make and the NEA, 35 Hours – 50% (This is Sketch books and your Practical)

Course Content Design technology GCSE

The course will also be running a range of design trips. This will include the Design Museum and New Designers

Students will also be taught a toolkit of practical processes and machinery. This will include CAD and Cam programs and machines

Coursework content/ Termly Timeline		SB/P
Term 6	• Context Challenges Analysis	SB
	• Moodboard Keywords and analysis post-it notes • Problems/Opportunities	SB
	• Designer Research	SB
	• Potential Users/Client Profile	SB
1	• Existing Products • Mini Brief/ Mini Specification	SB
	• Customer Profile/Customer interview	SB
	• Final Specification (Electronic)	P
	• Final Design Brief (Circle Map)	P
2	• Initial Design/ S.C.A.M.P.E.R Post-it Iteration	SB
	• Developed Designs/ Peer, Client Feedback	SB
	• Model Making x2	SB
	• GANTT Chart/ QC	P
3	• Final Design Presentation Drawing	P
	• CAD/ Finishes	SB
	• Material Testing	SB
	• Technical Drawing	P
4	• Evaluation	P
	• Feedback/ Testing	P
	• Improvements	P
Easter	> Submission & Moderation	
	> Timetable Changes	
	> EXAM WEEK - Revision in depth technical principles	



Career Pathways

Design and technology GCSE and Product Design A level are gateway qualifications into a wide range of creative career paths. The courses provide students with the experiences to start to specialise in the area of the creative world they excel in. The courses also allow the learner to become a holistic designer with a wide range technical skills to allow for a widening of career possibilities.

Engineering/Design Technology :

out of 11 F1 teams 7 are based in the UK

Apprenticeships

- Carpentry/Joinery
- Bricklaying
- Construction
- Electrician
- Plumber

A glimpse at the careers available from the design sector

- Architect
- Engineering
- Product Design
- Furniture Design
- Graphic Designer
- Web Designer
- Interior Designer
- CAD/CAM Technician
- Industrial Designer
- Textiles Designer
- Set Design/Props Modeller
- Project Management
- Model Making
- Chef
- Nutritionist
- Food Scientist
- Fashion Designer
- Automotive, Aerospace Engineering

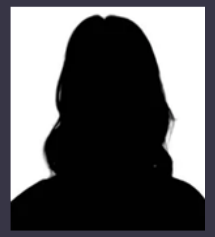
Characteristics of our Design Technology students

- To be open to taking design risks, showing innovation and enterprise whilst considering their role as responsible designers and citizens.
- Develop intellectual curiosity about the design and manufacture of products and systems, and their impact on daily life and the wider world.
- Work collaboratively to develop and refine their ideas, responding to feedback from users, peers and expert practitioners.

Your Team- The department is changing and is expanding

Mrs Simkins
Teacher
Specialism: Product Design and Food technology

Mrs Simkins has an extensive history in the education sector. She has been a technician and deputy head of year. She has now decided to follow her specialism and passion for the subject to qualify as a Design technology teacher. She studied Design technology with the open university.



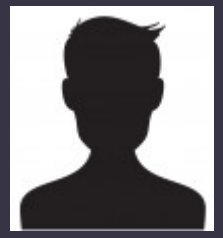
Mr Zygmant
DT technician
Specialism: Product Design/Model maker

Mr Zygmant has been at the centre of the product design A level for six years. His extensive knowledge of materials and processes has aided students to realise their final products. He studied Model making at the University of the creative arts Rochester.

HOLCOMBE GRAMMAR **DESIGN** + TECHNOLOGY

Mr Ackers
Head of Department
Specialism: Product Design and Resistant Materials

Mr Ackers is a SLE Design Technology teacher and lead for Design technology for the trust. He introduced the current Product Design A level to Holcombe six years ago. He studied at Loughborough University in Furniture design.



Mr Wells
Teacher/Teaching and learning drive team
Specialism: Product Design and Resistant Materials

Mr Wells has been a Head of year at his previous school and is a alumni of Holcombe Grammar school. He studied Furniture design at New Bucks University and Brighton. He has extensive industry background in furniture making and joinery .

Useful skills for DT

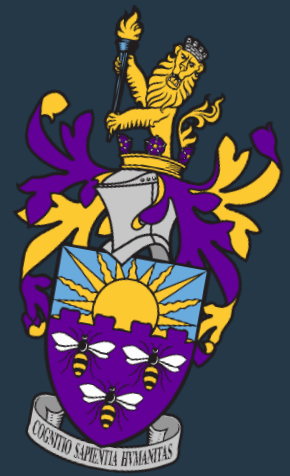
- Creativity
- Planning
- Organisation
- ICT skills for CAD design
- Problem-Solving
- Teamwork
- Communication
- Presentation of Ideas
- Pen skills
- Practical skills and a practical mind

Links to other subjects

- Art & Design
- Computer Science
- Geography
- Maths
- Science

Holcombe habits in DT

- Persistence is developed through applying the iterative design process when designs are failing to succeed.
- Creative thinking is developed through designing with a variety of different techniques and skills.
- Applying past knowledge are developed through using your understanding of materials, processes and manufacturing techniques.

Leading Universities for Design Technology

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University of Aberdeen
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University of York
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