

Home Study and Independent Learning Parental Support Information

Course information

Subject: Design and Technology - KS4 (Years 10-11)

Subject	Design and Technology	Subject leader contact information	Mr J Poote jpoote@cottesloe.bucks.sch.uk
Examination Board	AQA GCSE	Specification Code	8552

Subject Content:

Several coursework challenges will be undertaken throughout Year 10 where students are able to experiment with materials and processes to design and make products whilst developing skills and confidence. The theory content of the course will be woven into the practical applications where possible to help with a deeper level of understanding.

In Year 11 students are able to take responsibility in choosing from three design contexts provided by the exam board to focus on their final Non-Exam Assessment project. Evidence required for this is a design folder and a practical project, whilst the theory content will help students prepare for 2 mock exams and the final end of year exam in the summer.

Additional Equipment Needed

- A device that can access the internet and be able to research, create and edit documents and presentations. Ideally a Chromebook or laptop/desktop PC or Mac.
- Have a range of coloured pencils for adding colour and texture to designs
- A fine and broad black marker for adding line weight and impact to design work

Assessment Details:

Year 10 is split into 3 to 4 units/projects. Regular assessments are made throughout each unit to help us and students reflect on knowledge and skill and to identify areas of improvement. Students will be given exam-style questions and a series of mock exams will help identify any gaps in knowledge.

Coursework requirement

Up to three coursework challenges will be undertaken in Year 10 and one in Year 11.

Section A | Core technical principles - 20 marks

Section B | Specialist technical principles - 30 marks

Section C | Designing and making principles - 50 marks

Non-exam Assessment

Year 11 the final project needs to be a substantial design and make the challenge of 35 hours duration and will account for 50% of the grade.

Examination Requirement

A 2 hour written examination will be taken at the end of the course in Year 11 which accounts for 50% of the GCSE grade.

To be successful students will need to be able to:

- Work from design briefs (possibly even writing their own)
- Investigate contexts to identify wants needs and values
- Problem solve and

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- Write a design specification, identifying a user or group of users and their needs and wants (user-centred design)
- Be able to demonstrate skills in 3D drawing and representation (isometric projection)
- Know how to show creative thinking skills with mind mapping and idea generation
- Create impact to design ideas using line weight, colour and texture
- Demonstrate knowledge with selecting appropriate tools, materials and processes
- Show good research skills when sourcing relevant information
- Consider the user/consumer when designing/creating products
- Be able to evaluate their own work and the work of others in a local or nation/international context
- Use knowledge and skill from a range of other subjects eg Maths, Science, ICT and Art
- Be able to plan out processes prior to applying practical skills
- Demonstrate independence and resilience when carrying out practical activities

What can I do to support my child at home?

- Encourage reading of design and technology news (<https://www.wired.com>) and new innovations in design, technology and materials.
- Be curious about how things work, take broken products apart to learn more about how they work and what they may be made from (you could even cannibalise them to make something new).
- Watch appropriate 'design and make' or 'how stuff is made' videos on Youtube
- Provide access to the internet and a device to help with homework on Google Classroom

Recommended resources for the course:

Websites:

[GCSEPod Login](#)

<https://app.senecalearning.com/courses>

<https://www.bbc.co.uk/bitesize/subjects/zfr9wmn>

<https://www.technologystudent.com>

www.mr-dt.com

<http://www.madehow.com>

<https://designmuseum.org>

<https://www.cat.org.uk>

<http://www.design-technology.info/home.htm>

Books: CGP Design and Technology Revision Guide ISBN 978 1 78294 752 3

Teaching Staff Contact Details

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Additional Information:

Students will need to provide or fund materials throughout the course for the product they wish to design and make - Approximately £15 -20 per year. Drawing pens and a pack of coloured pencils are essential items for this course.