

Curriculum Overview

Subject: Design & Technology,
Year Group:11



Students are working in line with the AQA GCSE Design Technology specification. Developing core technical principles to demonstrate a breadth of technical knowledge and understanding. Specialist technical principles to assess a more in depth knowledge of technical principles. Designing and making principles. Students will be working towards developing their practical skills in all areas, extending on prior knowledge in polymers, timbers, textiles, papers and boards and metals.

Students will work on their NEA using the given topics. 50% of their final grade, alongside theory and revision work.

| TERM 1 | TERM 2 | TERM 3 |
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| <p>KNOWLEDGE/SKILLS</p> <p>Using the NEA to complete all sections of the project up to making. Design ideas, modelling and development, developing and testing, planning and manufacturing specification, manufacturing.</p> <p>Learn how to independently form ideas.</p> <ul style="list-style-type: none"> ➤ Learn how to develop ideas as part of the iterative design process. ➤ Develop knowledge of CAD Modelling. ➤ Learn how to work with a client. ➤ Know how to manufacture a product in the workshop. ➤ Practice exam skills. <p>Use of Exam style questions homework booklet.</p> <p>Use of exam style question starters.</p> | <p>KNOWLEDGE/SKILLS</p> <p>Complete all making skills, testing and evaluation ready for handing in and assessment. manufacturing, testing and evaluation.</p> <p>Revision through the revision guide and workbook.</p> <p>Learn how to independently form ideas.</p> <ul style="list-style-type: none"> ➤ Know how to manufacture a product in the workshop. ➤ Learn how to test and critically evaluate own design work. ➤ Practice exam skills. <p>Use of Exam style questions homework booklet.</p> <p>Use of exam style question starters. production techniques and systems, informing design decisions, batch</p> | <p>KNOWLEDGE/SKILLS</p> <p>Revision through the revision guide.</p> <p>Personalised learning through assessment on all units needed.</p> <p>Use of Exam style questions homework booklet.</p> <p>Use of exam style question starters. forces and stresses on materials and objects, improving functionality, ecological and social footprint. Industry and enterprise, sustainability and the environment, people culture and society. smart materials, composite materials and technical textiles, systems approach to designing. the 6 Rs, scales of production, selection of materials and components, tolerances and allowances, material management and marking out, specialist</p> |

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| Papers and boards, natural and manufactured timbers, metals and alloys, polymers, textiles, casting a keyring. | production project. Energy storage, energy generation, modern materials, smart materials | tools and, equipment, techniques and processes, surface treatments and finishes. |
| KEY ASSESSMENTS Half term 1: PPE | KEY ASSESSMENTS Half term 1: PPE NEA Complete for assessment | KEY ASSESSMENTS Half term 2: GCSE Exams |
| <p>Extended reading suggestions and external resources:</p> <p>Revision guide.</p> <p>www.technologystudent.com</p> <p>Current technological advances and newspaper articles as they arise</p> <p>BBC bitesize</p> <p>https://www.theguardian.com/environment/2016/jun/25/illegal-logging-amazon-timber-tougher-laws-british-products</p> <p>https://www.theguardian.com/world/2015/sep/17/illegal-timber-myanmar-china-forests</p> <p>https://www.youtube.com/watch?v=luygMuoFnXs</p> <p>https://www.youtube.com/watch?v=NvbgwdTGoyo</p> <p>https://www.youtube.com/watch?v=7pNWl1dcbg4</p> <p>https://www.youtube.com/watch?v=SLUcVh_4wlM</p> <p>https://www.youtube.com/watch?v=UGnDzE9mfUc</p> <p>https://www.youtube.com/watch?v=eF5LVBW1vl8</p> <p>https://www.youtube.com/watch?v=P9KPJlA5yds</p> <p>https://www.youtube.com/watch?v=3RUE367Sb9A</p> <p>https://www.youtube.com/watch?v=CBmsOvbGh-Y</p> | | |

<https://www.youtube.com/watch?v=fcBXtwGexNc>

<https://www.bbc.co.uk/news/science-environment-39217985>

https://www.youtube.com/watch?v=I8nMKH3y_1I

<https://www.youtube.com/watch?v=ALWwK7Vz4gY>

<https://www.bbc.co.uk/news/business-38472652>

<https://www.theguardian.com/world/2016/sep/19/waste-not-want-not-sweden-tax-breaks-repairs>

<https://www.bbc.co.uk/news/science-environment-37902773>

<https://www.bbc.co.uk/news/business-38263177>

<https://www.youtube.com/watch?v=ftj23FRS2LI>

<https://www.youtube.com/watch?v=BOo8gxp3K3w>

<https://www.youtube.com/watch?v=BqkekY5t7KY>