GCSE Design and Technology
Frequently Asked Questions

Q: What will I learn on this course?

A: The **theoretical side** of the course is spilt into two sections; core principles and in-depth knowledge.

Core Principles:

- Chapter 1 – Identifying requirements when designing
- Chapter 2 – Learning from existing products and practice
- Chapter 3 – Implications of wider use (e.g circular economy, sustainability, social and economic influences)
- Chapter 4 – Design Thinking and Communication
- Chapter 5 – Material Considerations
- Chapter 6 – Mechanical devices and electronic systems
- Chapter 7 – New and emerging technologies

In-depth:

- Study of one material 'in-depth', e.g. polymers, paper and boards, metals, timbers...

Coursework – pupils will learn how to respond to real life problems and come up with creative solutions to these problems. They will work through an iterative process to find their solutions, working with real-life stakeholders.

Q: How is the course assessed?

A: Your GCSE grade is made up of the following:

- 50% of your GCSE grade = final exam. This will take place at the very end of the course
- 50% of your GCSE grade = NEA (Non-Exam Assessment) (coursework)

<u>Final Exam - 'The Principles of Design and Technology':</u>

- 2-hour exam
- 100 marks
- The exam tests your knowledge on the theoretical content covered in the course.
- You will cover a whole variety of materials, processes and concepts.

<u>NEA – Non-Exam Assessment – Iterative Design Challenge:</u>

- 40-hour project
- 100 marks
- Three design contexts are released from the exam board (OCR) on 1st June 2020
- You will work through an iterative design process responding to one of these design contexts and creating a design solution to the context.
- You can use any materials, processes and concepts that are appropriate to your idea.

- You will produce an E-Portfolio that records your progress as your go through the project. This should include lots of iterations which could be showcased in drawings, prototypes, models, prototype testing and material testing
- You will need to work with a stakeholder and be in constant touch with them and record your contact through interviews, video recordings, emails, texts etc.

The OCR GCSE Design and Technology specification and assessment materials can be found here; https://www.ocr.org.uk/qualifications/gcse/design-and-technology-j310-from-2017/

Q: What kind of workbook would be suitable for GCSE Design and Technology?

A: All pupils are given a class workbook to record their theoretical notes in. Pupils record their coursework and all other design units in an e-portfolio format.

Q: Will we get to learn how to make electronic things, make circuits, solder?

A: At the moment pupils are taught the theoretical aspect of electronic systems. The exact theoretical content can be found in the course specification.

Q: What is the main difference between GCSE Design and Technology and Engineering?

A: In the GCSE Design and Technology course, pupils learn a range of theoretical content which is tested in the end of course exam. Pupils also complete a coursework unit were pupils design and make a product responding to a real-life problem in a creative way. In Engineering, pupils learn a range of theoretical content like that in GCSE Design and Technology, which again is tested in an exam. However, the rest of the course is made up of a range of units where pupils are taught skills. There is no aspect of creativity in the Engineering course.

Q: What equipment and tools can be used on the course?

A: Pupils have full access to all the workshop tools and equipment. Alongside this, pupils will use CAD software and have access to a laser cutter and 3D printers.