

**SUBJECT:** Design & Technology (GCSE)

**YEAR:** 10 & 11

**HEAD OF DEPARTMENT:** Mrs Nelmes

**GROUPING POLICY:** Mixed ability in option blocks

**EXAM BOARD:** AQA

**ASSESSMENT:** 50% Non-Exam Assessment; 50% External Examination

**Link to Specification:**

<https://www.aqa.org.uk/subjects/design-and-technology/gcse/design-and-technology-8552>

### **COURSE CONTENT**

#### **What will my child learn?**

##### **Core technical principles**

- new and emerging technologies
- energy generation and storage
- developments in new materials
- systems approach to designing
- mechanical devices
- materials and their working properties.

##### **Specialist technical principles**

In relation to plastics, wood and metals:

- selection of materials or components
- forces and stresses
- ecological and social footprint
- sources and origins
- using and working with materials
- stock forms, types and sizes
- scales of production
- specialist techniques and processes
- surface treatments and finishes

#### **What will homework look like?**

Various tasks set totalling approximately two hours per fortnight. These will include exam style questions, consolidation of work from class, the review of marked work.

#### **What enrichment opportunities are available?**

- Renishaw Teardown trip
- Deep Learning Day activities
- Independent research

### **ASSESSMENT**

#### **How will my child's work be assessed?**

Students' classwork and homework will be systematically assessed throughout the course. This will include termly tests over two years (internally assessed). These will be used to monitor and support progress and identify areas for students to develop.

At the end of Year 11, students will sit one external examination which is worth 50% of the qualification.

### **External Examination:**

- 2 hour exam totalling 100 marks.
- A mixture of multiple choice, short answer questions and extended response questions are used to assess a breadth of technical knowledge and understanding across the 3 key areas:
  - Core technical principles
  - Specialist technical principles
  - Designing and making principles

### **Non-Exam Assessment:**

This is a substantial 'making' task which requires the application of the principles in the examination. It is worth 50% of this qualification. This unit is completed over approximately 35 hours. Students will be required to submit a practical piece and a portfolio of evidence.

### **ADDITIONAL INFORMATION**

#### **How can I support my child in this subject?**

- Discussion of topics being covered
- Trips to relevant museums
- Access to ICT for independent research
- Check that homework is being completed – Homework that has been set can be seen on Show My Homework from the school website

#### **How can I support my child with exams?**

- Revision techniques and timetabling
- Encourage attendance at catch up and revision sessions after school
- Encourage use of the electronic resources offered such as GCSEpod