

Resistant Materials

PLEASE CONSULT: Mrs C Turner or Mrs J Ritchie

TITLE OF SYLLABUS: GCSE Design and Technology: Resistant Materials - J306

QUALIFICATION: GCSE

GRADE RANGE: 1 - 9

WEIGHTING OF ASSESSMENT:

CONTROLLED ASSESSMENT: (60%) Made up of two pieces of coursework (30% each) completed across Years 10 and 11.

EXAMINATION: (40%) 'Sustainability and Technical Aspects of Designing and making' one paper sat at the end of Year 11.

PREVIOUS A*-C EXAMINATION RESULTS : 2015 – 29%

Course Description:

Students will develop their practical skills, along with their knowledge of wood, metal and plastics, through completing a series of mini projects in Year 10. On completing these they will begin their first controlled assessment task that requires students to design and make a prototype product based on a given theme. This project requires research of existing products, a focus on designing for an identified user and an evaluation of performance. It is a 50/50 split of written coursework and practical project work providing 30% of their overall grade.

A second project of similar structure follows in year 11 and leads up to the summer examination revision. This project is also worth 30% of students overall grade and also consists of a 50/50 split of written coursework and practical work.

An exam, sat in the summer of year 11, covers technical knowledge and issues relating to sustainability/the environment. It is a mix of multiple choice, design and written answered questions and worth 40 % of the overall grade.

Topics for Study:

- Various skills based mini-projects, pupils have input as to which projects selected.
- A561 controlled assessment; Design and make a lighting System.
- A563 controlled assessment; Design and make a storage item for a sport or hobby.
- Examination revision.

Homework:

Homework is set in line with the school homework policy. It is expected that if Controlled Assessment deadlines are not met that students complete work at home.

Resources and equipment needed:

In addition to the standard equipment required, students would benefit from owning a memory stick to transfer and save work. There is also an annual contribution of £10 to cover the cost of basic materials.

Careers and Further Educational Opportunities:

A GCSE in Resistant Materials is great grounding for a career in a trade or practical skills/ design based profession, for example: Engineering careers, construction based careers, product design, architecture and CAD/CAM (manufacturing) careers.