

LONG TERM PLANS

Year Overview (GCSE Resistant Materials Year 10/11)



ADT Faculty

Design and Technology – GCSE Resistant Materials YEAR 10/11

Aims: RM Design and Technology is a practical subject area which requires the application of knowledge and understanding when developing ideas, planning, producing products and evaluating them. Pupils will gain an understanding of designing and making in the context of resistant materials (wood, metal, plastics and smart materials) through a series of design and make projects and focused practical tasks. They will discuss Design and Marketing influences and consider sustainability of design, along with Industrial Practices and manufacturing processes.

Pupils will develop their Personal Learning and Thinking Skills, e.g. - by carrying out Independent Research for PLT tasks and by working both as individuals and in teams in the classroom when carrying out practical activities.

The delivery focuses on **Design and Communication, Materials and Processes** - This section focuses on the processes used to manufacture products. It includes the technical background, but it is largely based around a series of practical skills development tasks.

The Pupils will be asked to reflect on their skills as part of their assessment activity and to complete mock tests to confirm understanding in preparation for exam.

Cross curricular links: (English) Spelling and correct use of language and terminology is vital for accurate work and transmission of ideas.

(Maths) Accurate marking out and use of materials -dimensions / measuring needed to work within tolerances for assembly of various products.

Year 10 focusses on introducing pupils to a range of different tools and production processes through a range of practical tasks using different materials, machines and techniques.

Year 11 focusses on controlled assessment, portfolio development and exam preparation.

Key Assessment Activity: *practical making of a mixed material product, an A3 design portfolio and an end of course external examination.*