



# Carleton Community High School

*A Specialist Science with Mathematics School*



## AQA GCSE Design & Technology Product Design

Design and technology is everywhere and engrained in everything we do. It is a practical subject area which requires the application of knowledge and understanding when developing ideas, planning, manufacturing products and evaluating them. The distinction between Designing and Making is a convenient one to make, but in practice the two often merge. For example, research can involve not only investigating printed matter and people's opinions, but also investigating proportions, adhesives, colour, structures and materials through practical experimentation.



### Year 10 and 11

Throughout year 10 candidates undertake a series of design and make assignments. These assignments will help build knowledge, skills and understanding in order to prepare for an extended assignment (Controlled Assessment) and a final examination in year 11.

### Assessment, Controlled Assessment and Grading

- One GCSE graded A\* - G
- Controlled Assessment = 60% of final grade
- 2 hour Summer Examination = 40% of final grade
- Up to 20 A3 quality sheets will achieve grades A\*-C
- Time management is key, candidates must be organised and not leave work till the last minute
- Preparation for examination is rigorous not only in lessons but also after school and in plus one sessions leading up to the examination

### Designing

Be creative and innovative when designing;

Design products to meet the needs of clients and consumers;

Understand the design principles of form, function and fitness for purpose;

Understand the role that designers and product developers have, and the impact and responsibility they have on and to society;

Analyse and evaluate existing products, including those from professional designers;

To develop and use design briefs and specifications for product development;

Consider the conflicting demands that moral, cultural, economic, social values and needs can make in the planning and in the designing of products;

Consider health and safety in all its aspects;

Generate design proposals against stated design criteria, and to modify their proposals in the light of on-going analysis, evaluation and product development;

Reflect critically when evaluating and modifying their design ideas and proposals in order to improve the products throughout inception and manufacture;

Test and evaluate the final design proposal against the design specification;

Evaluate the work of other designers to inform their own practice;

### Making

Select and use tools/equipment and processes to produce quality products;

Consider the solution to technical problems in the design and manufacture process;

Use tools and equipment safely with regard to themselves and others;

Work accurately and efficiently in terms of time, materials/ingredients and components;

Manufacture products applying quality control procedures;

Have knowledge of Computer-Aided Manufacture (CAM) and to use as appropriate;

Ensure, through testing, modification and evaluation, that the quality of their products is suitable for intended users and devise modifications where necessary that would improve the outcome(s);