

Core Content Overview:

This unit is designed to prepare students for the controlled assessment at GCSE level and will primarily cover the design process and comprises two distinct strands of designing and working with a client.

The Design Brief

Tablets and Smart phones are becoming increasingly popular and the range of apps means that they are being used around the home and car. You have been approached by a company who manufacture tablet and phone accessories to design a stand to support the device while the user is viewing the screen.

Essential parameters, The device

- Must support either a Tablet or Smart Phone.
- Should hold the device securely and prevent it falling over.
- Should be manufactured from one A5 sheet of 3mm Acrylic.
- It is not necessary that the device is being charged while being supported.

Key Skills:

Learning outcomes include the following

- Following the Design Process
- Working from a Design Brief
- Carrying out independent research
- Sketching ideas using a variety of techniques, isometric, orthographic and any other chosen by the student
- Completing a design exercise emulating the requirements of the AQA GCSE coursework students will encounter in Year 11. The final portfolio will be marked with reference to Parts A & C of the AQA marking scheme.
- Working to a timescale

GRADE	DESCRIPTOR
Yr 9 Grade 7	<ul style="list-style-type: none"> • Produced a detailed analysis explaining the client's requirements and justifying the key features. • Generated and evaluated a range of alternative design ideas. There is detailed evidence of testing and modifications to produce a final design solution. • Used a range of detailed engineering drawings/ diagrams that comply with sector specific standards and conventions. The ideas are workable and the drawings/ diagrams are annotated appropriately. • Information is clearly and logically presented and organised using an appropriate form and style throughout. The text is legible, easily understood and shows a good grasp of grammar, punctuation and spelling in the work. • When testing, demonstrated testing against the design brief and specification, using appropriate scientific principles and modelling, to select their final design. Explained in detail the reasons for their choice using correct engineering and technical language. The final design solution matches the design criteria. Candidates have responded to client feedback and proposed modifications to the specification as required. • When manufacturing, undertaken detailed and objective testing to compare their product to the specification. The finished product complies consistently with the standards required. • Described the impact of a wide range of new technologies including critically investigating several engineering products. • In the end of module exam a mark equal to, or in excess of 84% is attained.
Yr 9 Grade 4	<ul style="list-style-type: none"> • Produced a more detailed analysis, identifying most of the key features and client requirements. • Generated and evaluated alternative design ideas with evidence of testing and modifications to produce a final design solution. • Used a range of engineering drawings/diagrams. There is some evidence that they have used sector-specific standards and conventions. It is unclear from the drawings that the ideas are workable. • Most of the information is presented in an appropriate form and style. Most of the work is organised clearly and coherently. There are a small number of errors in grammar, punctuation and spelling evident in the work. • Demonstrated testing against the design brief and specification, with evidence of some use of scientific principles and/or modelling being applied and some link to the final design being evident. • When testing, explained the reasons for their choice using appropriate technical language. The final design solution matches the main design criteria. Candidates have responded to client feedback and modified their proposed solution if necessary. • When manufacturing, undertaken a range of basic testing on the product and compared it to the product specification. The finished product complies with the main requirements of the specification. • Described several aspects of new technology including investigated an engineering product in some detail. • In the end of module exam a mark equal to, or in excess of 56% is attained.

GRADE	DESCRIPTOR
Yr 9 Grade 1	<ul style="list-style-type: none">• Produced a brief analysis, identifying some features of the design brief, to produce a design• Generated and evaluated a basic design idea and developed a simple design solution. There is some sign of modification.• Used a limited range of engineering drawings/ diagrams. They may not be drawn to sector-specific standards and conventions. Some of the information is presented in an appropriate form and/or style.• Much of the work is not organised clearly or coherently. Numerous errors in grammar, punctuation and spelling are evident in the work.• When testing, demonstrated limited evidence of testing against the design brief and specification. Shown some reasoning and have used basic or inappropriate terminology. They did not respond to feedback or modify their proposed solution• When manufacturing, undertaken some testing of the product and compared it to the product specification.• Described a single aspect of a new technology including superficially investigated engineering products.• In the end of module exam a mark equal to, or in excess of 29% is attained.