

Technology & Design

Product Development Assessment: Unit AS 2

Coursework Timetable

The emphasis in this unit is on the analysis and development of an **existing** product, with a view to re-designing either the product or an aspect of it. **It is important that you have access to the product** to allow detailed investigation and that the product has scope for further development. (ie. an I-pod leaves a candidate little room for improvement.) Ideal products are compact; include simple moving parts and are easy to manufacture.

It is important that the choice of product allows sufficient scope for development and challenge at AS Level. Students will **produce a 3-dimensional model or prototype** which represents the practical outcome of the product analysis and development.

A portfolio should accompany the practical component with written and graphical information produced on approximately **10-12 A3 sheets**. Students can present the portfolio in electronic format, however it is important to have a hard copy back-up.

This unit draws on the knowledge and skills covered in Unit 1 and should represent approximately 45 hours of work. It is important that you use the information in such a way that does not just involve defining technical words or explaining how a machine works, but instead use the information to explain why that material was used or why the product is a particular shape etc.

Section	Content	% of unit/ No. pages	Dates
Investigation & Analysis of Product.	Present a wide range of existing similar products in detail. Give a detailed description of function, purpose and features . Consider in detail relevant materials and industrial production methods . Present a detailed evaluation of fitness for purpose . Present high level analysis of ergonomics, sustainability and aesthetic suitability.	10% 1-2 pgs	Completed by <i>Fri 14th Oct</i>
Redesign Solutions and Development	Write a detailed redesign specification . Generate a wide range of innovative/sustainable design modifications. Evaluate in detail the viability of each modification . Present a detailed plan for manufacture. Produce detailed sequence of redesign development drawings. Produce high level working drawings for manufacture .	40% 5-6 pgs	First 2 pages completed by <i>Fri 18th Nov</i> Section completed <i>Thu 15th Dec.</i>
Manufacture	Produce a high quality outcome in a wide range of materials. Demonstrate clear competence in a range of production skills and processes. Record in detail any changes in design developments brought about during manufacture .	40% 0.5-1pg + make	8 wks workshop. All manufacturing including the folder page should be completed by <i>Thu 16th Mar.</i>
Testing and Evaluation	Produce a high level critical and objective evaluation of the outcome. Carry out and present an extensive range of detailed testing , showing meaningful conclusions . Make high level proposals for further development as an outcome of testing.	10% 1-2 pgs	Completed by <i>Fri 24th Mar</i> Completed folder final hand in date <i>Wed 29th March.</i>