

Year 12 Induction-Design and Technology, Product Design

Course outline

Edexcel exam board www.edexcel.com.

This is a linear A level course with 2 modules, one non examined assessment (NEA) and one exam. This course is 50% Non-Examined Assessment (NEA) and 50% exam.

NEA

Consists of a student selected problem with an advanced level of demand which is client or user group focussed. This will be started in the summer term of Year 12. Each section of the NEA will have interim deadlines and a separate final deadline.

Before each deadline you will be able to hand in work for feedback at any time.

Exam

This unit will be examined at the end of Year 13. It is two and a half hours long and consists of a range of short and extended response questions and maths calculations. The exam has a range of explain and evaluate questions where you are expected to use your knowledge and understanding. A list of command words and definitions can be found in the A level specification. Many of these materials and processes will be similar to those studied at GCSE, but in much more depth.

You will be given a textbook to use throughout the course which has comprehensive information presented in an easy to follow and visual format. You are expected to bring this to each lesson for reference.

In year 12 we will be completing a range of projects to build your skills, subject knowledge and confidence to tackle the NEA effectively and to introduce in sections 1-7 of the specification: Materials, Processes tools and techniques, Digital technologies, Factors influencing the development of products, Effects of technological developments, Safe working practices.

Equipment you will need

- A4 notebook.
- A 20 pocket A3 flip file, for NEA.
- Basic drawing equipment, nothing special unless you want to purchase it.

Holiday preparation

As designers we need to be aware of products, structures and interiors that could be made more effectively or improved for their target market or the future of our planet. We need to think broadly about products that are used by others and not just ourselves. We need to gather inspiration from a wide range of sources in all things and try to be open-minded.

Your tasks

1) Find an example of an electronic or mechanical product that you think could be improved/ updated either **aesthetically, functionally or both**. It could be that it needs improving for a particular user group or for all users.

Do not try to choose products that have clearly been updated or improved already!

- Write a brief definition for the following words so you know what they mean- Aesthetics and Function.
- Analyse the product so you know how they have been **constructed** externally and what types of **materials** might have been used to make them.
 - Look at the **details**.
 - Why are those materials suitable?
 - Why have parts been made in sections?
 - Why are components made in different materials?
- You could take photographs and label the details, rather than writing copious notes.
- Think about **why** the product would benefit from redesigning.
 - Which parts could be redesigned?
 - What's wrong with them currently?
 - Do you have any suggestions?

2) Choose a product from one of the designers below and evaluate how you think the designers have addressed **form and function** in relation to the product you have found.

- Start by writing what 'form' and 'function' mean
- Include a picture of the product
 - Annotate it with the key characteristics that represent that style
 - Maybe include other examples of that style to show the similarities

a) Arts and Crafts – William Morris

b) Art Nouveau – Charles Rennie Mackintosh

c) Bauhaus Modernist – Marianne Brandt

d) Art Deco – Eileen Gray

e) Post Modernism – Philippe Starck

f) Streamlining – Raymond Lowey

g) Memphis – Ettore Sottsass.