GCE Design and Technology: Product Design (OCR)

Transition Work

The Product Design course consists of two units:

Exam board: OCR Product Design H406 Coursework: (NEA) Non-exam assessment interpretation Iterative design project	50%
Exam 1: Principles of Product Design	23.7%%
Exam 2: Problem solving in Product Design	

It would be a good idea to start collecting your own personal equipment:
- A3 portfolio for storing work
- digital camera or phone camera
- selection of sketching pencils
- selection of black fine line pens
- selection of coloured pencils (water soluble)
- magic marker set (if possible)
- magic marker bleed proof paper (A3)
- good quality set of felt tip pens
- A3 layout pad
- tool box / carry case / portfolio case to store and carry all your equipment
- course book: My Revision Notes: OCR AS/A Level Design and Technology: Product Design
ISBN-10: 1510458964 / ISBN-13: 978-1510458963

NEA
The iterative design project requires learners to undertake a substantial design, make and evaluate project centred on the iterative processes of explore, create and evaluate. Learners identify a design opportunity or problem from a context of their own choice, and create a portfolio of evidence in real time through the project to demonstrate their competence.

Exam 1: Principles of Product Design
This paper is set out through four sets of questions that predominantly cover technical principles within product design. Learners will be required to:

- analyse existing products
- demonstrate applied mathematical skills
- demonstrate their technical knowledge of:
  - materials
  - product functionality
  - manufacturing processes and techniques
- demonstrate their understanding of wider social, moral and environmental issues that impact on the design and manufacturing industries

Exam 2: Problem solving in Product Design

This component has a series of longer answer questions that require learners to demonstrate their problem solving and critical evaluation skills. Learners will be required to:

- apply their knowledge, understanding and skills of designing and manufacturing prototypes and products
- demonstrate their higher thinking skills to solve problems and evaluate situations and suitability of design solutions

Task 1: preparation work

1. Choose a handheld product that you have access to at home but **not a phone**

2. Collect images showing the product in use and all of the different views

3. All of these images must be placed onto a PowerPoint set up as A3

Task 2: investigation of the context and feasibility study of the product

Look at the product and create a table style layout page with the following headings:

1. Product name and description of product

2. What are the main problems associated with this product?

3. Opportunities for further development

4. Market potential

Notes to help you:

1. *Product name and description of product*

   Use ACCESSFM to help describe in detail about the product and what it is.

2. *What are the main problems associated with this product?*

   By using the product and looking at your photographs you must explain what the main problems are. Maybe use bullet points.

3. *Opportunities for further development*

   You should think about all the problems you have identified and explain what could be developed and improved.

4. *Market potential*

   You will need to explain how well the product sells or doesn't sell by conducting some research specifically about that product. You will then also need to discuss how well it might or might not possibly sell if you carried out the further developments that you have identified.

Task 3: Product Analysis

You must conduct a product analysis on one of your product that you have chosen using all of the headings from ACCESS FM. You must also include a selection of 3D pictorial drawings to include:

- Isometric
- 1 pt perspective
- 2 pt perspective
- 3rd angle orthographic drawings (front, plan and side views)

This can be completed on A3 paper but can also be done on the PowerPoint. You could scan in/ photograph your sketches but you must also keep them in your portfolio as evidence. You could also use Google Sketchup to help show parts or developments.

Choose one thing on the product that you would make better and show how it could be developed further through a series of sketches/ CAD drawings and models made from materials.

Bring all completed tasks with you ready for your first lesson in September. You will need to have your PowerPoint on a USB or your OneDrive.

If you have any questions please contact Mr Mitchell: t_mitchell@taverhamhigh.org