



# GCE Design and Technology: Product Design ([OCR](#))

## Preparation for Induction Day

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	26.7%
Exam 2: Problem solving in Product Design	23.3%

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 / to store and carry all your equipment
- A3 portfolio case
- [course book](#):

My Revision Notes

OCR AS/A Level Design and Technology Product Design

ISBN-10: 1510458964

ISBN-13: 978-1510458963

If eligible for the post 16 bursary, resources and materials for the course can be ordered by the school on your behalf via bursary funding. Please ask in the sixth form office for further details.

## 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

You will then need to fill in detailed information about each heading that relates to the product.

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 your product from task 1 and task 2, or another product that you have, 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
- 3<sup>rd</sup> 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.

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Bring all completed tasks with you on the induction day in July. 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](mailto:t_mitchell@taverhamhigh.org)