Caldew School

Design & Technology
A-level Product Design 3D

2 year course (AS/A2)
4 units of work—2 projects, 2 exams
Each unit is worth 25% of the A-Level

Unit 1 - PROD1 Materials, Components and Application
50% of AS, 25% of A Level—2 hour written paper-80 marks

Unit 2—PROD2 Learning Through Designing and making
50% of AS, 25% of A Level—Coursework - approx 50 hours—80 marks
Written (or electronic) design portfolio & manufactured outcome(s)

Unit 3 - PROD3 Design and Manufacture
25% of A Level – 2 hour written paper – 84 marks
Based primarily on Design and Manufacture and consisting of two sections

Unit 4 - PROD4 Design and Making Practice
25% of A Level –Coursework - approx 60 hours – 85 marks
Written (or electronic) design folder & manufactured outcome

How the course is set up at Caldew School:

- Projects run from September to April and include a design folder and a final product. Projects are completed both in school and at home. Deadlines will be set for individual pieces of work to help you maintain a consistent level of progress.
- Exams are taken at the end of Year 12 and Year 13
- Throughout both academic years you will study the theory of product design in preparation for the exams, this will take place in lessons and for homework

Name: Group:

Unit 1 - PROD1 Materials, Components and Application

In your first project you will be required to research, design and manufacture an item of furniture for a chosen client. Your furniture should be creative, innovative and fulfil a purpose. You will be required to determine who the client is and carry out a number of investigations in order to produce research that will inform your design work.

You will begin Unit 1 during the induction period. Follow the tasks outlined in this pack.

Task 1: Mood board – The Theme

- Select a theme for your furniture and produce an **A3 mood board** based on your chosen theme.
- Your mood board needs to have a vast amount of inspiring imagery. The A3 sheet should be full (this doesn't mean just making the images bigger!).
- Make sure you look for images with interesting shapes and patterns to help you explore a range of ideas when you begin to design your furniture.

Ideas for themes - List several possible ideas for theme below:

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Task 2: Design Development

Get creative:

- Using tracing paper, draw over the top of the items of furniture, amending them to make them more interesting and imaginative.
- Make sure your new ideas consider the themes given.

Initial Design Ideas:

- Produce a wide range of **initial design ideas** using your mood board for inspiration.
- These should be really **creative** at this point – don't get fussy with the drawings! Think outside of the box, forget how you will manufacture them at this stage.
- Use rendering to enhance your sketches.
- Annotate your designs. Consider: materials, function, client, size, safety etc.

Task 3: Aesthetic Modelling

- Select your best design and using suitable materials model your idea.
- Photograph your model and upload this to the computer – onto an A3 sheet
- Leave plenty of white space around your images to allow you to sketch and annotate (you may want the same image more than once to allow you to produce more than one sketch).

Homework task:

Design Situation/Brief:

- Think of a situation to design for – a problem that you would like to solve.
- Do you or your family have any requirements for a new item of furniture?
- What could you design and make?
- Explain the **situation** (the 'problem') and then write a **design brief**.
- Analyse your design brief using the headings below.
    - This can be presented as a table or in another format of your choice.
    - It must be in-depth. Remember this is a step up from GCSE!

Start thinking about...

- Who do you want your client to be?
- Write a client profile, presented using ICT:
    - Who is the client? Age, gender, interests.
    - What do they want from the product?
    - Where will they use the item of furniture?
        - **Begin a site survey** – photograph the area where the product will be used. Get these images onto the computer.
        - **Write about the area in which the product will be used**.
        - Are there any significant factors? Is there anything you need to take into consideration?
    - Write a set of questions (yes, it's just like your GCSE!) to ask your client.

**** BRING THIS WORK WITH YOU IN SEPTEMBER ****