



SIXTHFORM D&



What is 3D Product Design?

Product Design seeks to develop student's knowledge, understanding, skills when designing products. It encompasses a wide range of design disciplines but is firmly rooted in the skills required to design and make high quality products.

Who is it for?

The course is aimed at pupils who have gained a 5 or above at GCSE in the following Design and Technology subjects:

- Resistant Materials
- Graphic Products
- Textiles

What will I study?

Paper 1

What's assessed

Technical principles

How it's assessed

- Written exam: 2 hours and 30 minutes
- 120 marks 30% of A-level

Questions

Mixture of short answer and extended response.

Paper 2

What's assessed

Designing and making principles

How it's assessed

- W itten exam: 1 hour and 30 minutes
- 80 marks 20% of A-level

Questions

Mixture of short answer and extended response questions.

Section A:

roduct Analysis: 30 marks

Section B:

• ommercial manufacture: 50 marks

NEA - Non examined assessment

What's assessed

Practical application of technical principles, designing and making principles.

How it's assessed

- Substantial design and make project
- 100 marks 50% of A-level

Evidence

Written or digital design portfolio and photographic evidence of final prototype.



The course is made up of:

Year 1

Unit 1: Core technical principles and core designing and making principles.

During the A level you will develop an understanding of materials and components that are used in the manufacture of products and investigate their different applications. You will develop your knowledge and skills by working in a variety of different materials and gain experience with the related processes. You will learn how to take a design problem, investigate the user needs, create early design concepts and then develop these ideas into a fully working prototype. This will be taught through a series of hands on practical session and mini projects.

Year 1

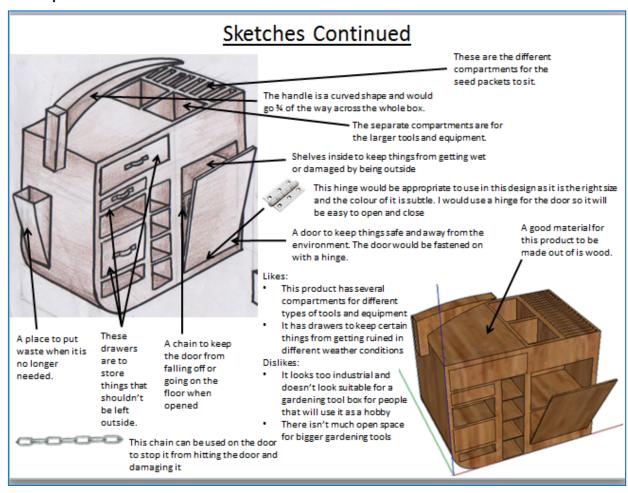
Unit 2: Specialist knowledge, technical and designing and making principles.

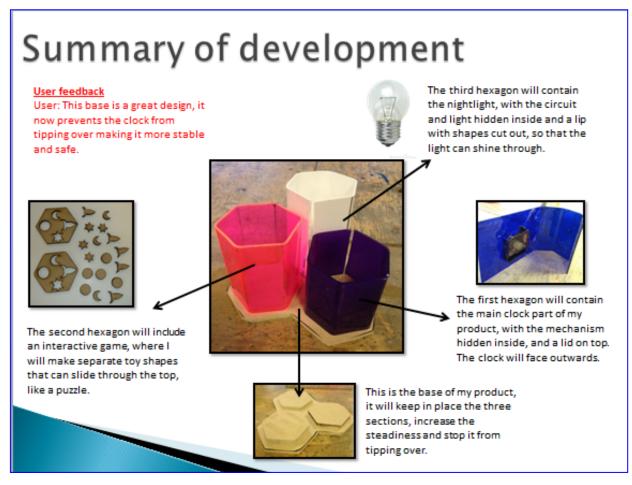
During Year 2 students will develop specialist knowledge and understanding of a range of materials and processes. They will investigate modern/contemporary designs, Market Influences, Processes and Manufacture processes. These consist of Industrial and Commercial Practices; Systems and Control; Design in Context; Influences of Design History on the Development of Product and sustainability.

Unit 3: – Practical application of technical principles, designing and making principles and specialist knowledge.

Students in this unit will chose a design problem and investigate possible solutions to it. This will lead them to research the idea, offer a range of creative solutions and eventually produce a design solution. This will be presented in a portfolio and a final working porotype will be produced.

Examples of Work:





See Mr Bull, Mr Hostord or Mrs Marshall for further details.