Kimberley School

Design & Technology

Sixth Form

AS/A Level

2017-2019

3D Product Design

What is 3D Product Design?

Product Design seeks to develop students knowledge, understanding, skills and application for 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 C or above at GCSE in the following Design and Technology subjects:

- Resistant Materials
- Graphic Products

What will I study?

At AS:- Unit 1 – Materials, Components and Application

How it's assessed
• Written exam: 2 hours
• 100 marks
• 25% of A-level

At A2:- Unit 2 – Specialist knowledge, technical and designing and making principles.

How it's assessed
• Written exam: 2 hours
• 25% of A-level

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

How it's assessed
• Substantial design and make task
• 45 hours
• 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.

At AS level you will develop an understanding of materials, components used in manufacture and there different applications. You will develop your knowledge of physical and mechanical properties of a broad range of materials and components and understand why these are used in specific applications with particular emphasis on the life-cycle of products including manufacture, use and disposal.

Year 2

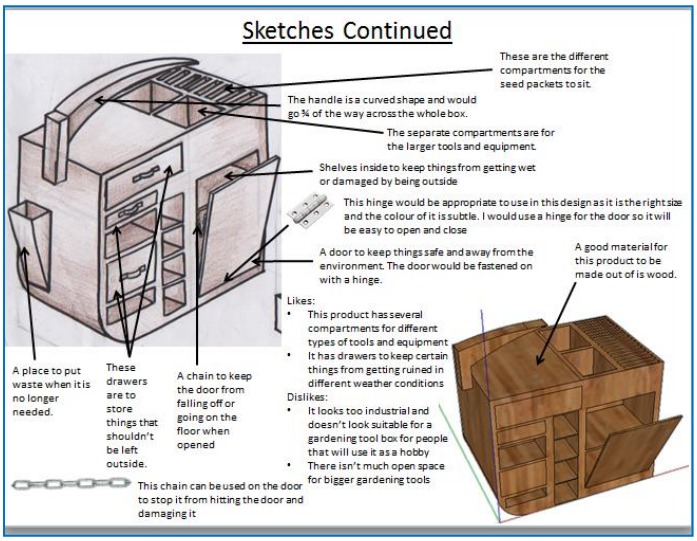
Unit 2: Specialist knowledge, technical and designing and making principles.

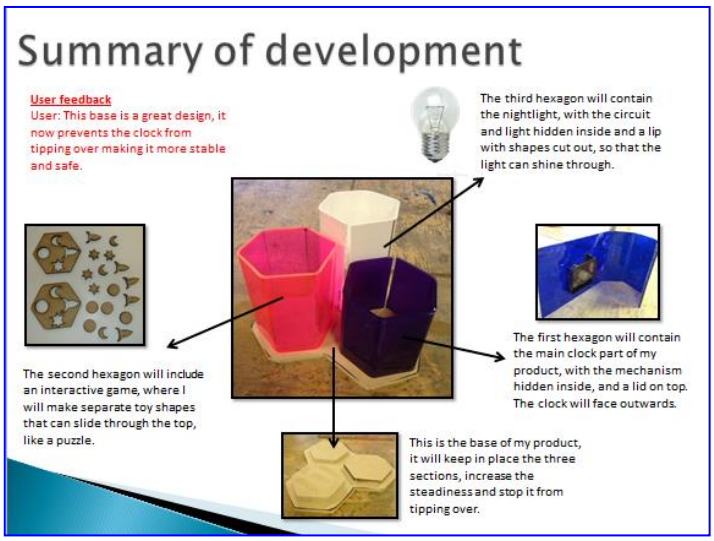
In this unit students will develop specialist knowledge and understanding of a range of materials and processes. They will investigate modern/contemporary designs, Market Influences, Processes and Manufacture processes. These consist of Industrial and Commercial Practices; Systems and Control; Design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

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

Students in this unit will Design and Make a product of their choice. This will be done through either Conceptual Design or the Built Environment. The students will produce substantial design portfolio with a final 3D final product.

Example Work





See Mr Yates for further details.