



THE ARNEWOOD SCHOOL

KEY STAGE 5 Product Design



Implementation:

This is a creative and thought-provoking qualification that provides the students with the practical skills, theoretical knowledge and confidence to succeed in a variety of different careers. Especially those in the creative industries.

A Level Design and Technology Product Design

Year 12

Half term	Curriculum focus	Landmark assessment
Autumn 1	Students will study and undergo 6 small design tasks relating to designers, their work, key features and their famous pieces. They will investigate the properties of wood, metal and plastics and their performance characteristics. Students will also look and composites, smart and modern materials.	Students will produce study sheets and there will be an end of topic assessment.
Autumn 2	Students will have a design and modelling project based on the 10 principles of good design by Dieter Rams. Students will study forming, redistribution and addition processes alongside adhesives and finishes.	Students will produce a small folder evidencing designing and development of a project and a small model of their final product.
Spring 1	Students will be studying the work of company Alessi and the unusual kitchenware designs they produce. Students will be modelling their own designs based on Alessi, exploring different materials and techniques. Students will develop their knowledge of modern industrial and commercial practices and digital design and manufacture.	A completed designer study, design and development portfolio and a finished model.
Spring 2	Students will study the four different design movements. The styles and key pieces of the era. They will design four different styles of arm chair, each in the style of a different design era, creating mini prototypes exploring different techniques and materials.	A finished model and a designer study page.





	Students will study scales of production, the use of computer systems and sub assembly.	
Summer 1	Students will develop, model and create mini prototypes of four different styles of arm chair, each in the style of a different design era, exploring different techniques and materials. Students will investigate virtual modelling, rapid prototyping and inclusive design.	Students will present an A3 design movement study sheet and chair model for each era and a page of designs.
Summer 2	Students will begin their NEA. They will decide the path their project will follow and find an appropriate client, creating an appropriate brief and specification for their project and a planning timeline. Students will examine health and safety working practices, intellectual property, repair and maintenance and design communication.	Course work portfolio Section A - Identifying and investigating design possibilities. Theory assessment

Year 13

Half term	Curriculum focus	Landmark assessment
Autumn 1	Students will continue their NEA. They will begin researching products and producing initial designs for their client. Design movements will be examined alongside the social and economic impact on design.	Course work portfolio Section A - Identifying and investigating design possibilities. Section B - Producing a design brief and specification.
Autumn 2	Students will continue their NEA. They will begin developing initial ideas, trialling different techniques and building on previously learnt skills. Major development in technology will be considered and moral and ethical issues in relation to design.	Course work portfolio Section C - Development of design proposals.
Spring 1	Students will continue their NEA. They will continue to develop ideas, working with different materials and techniques. Continuously developing and evaluating. Students will investigate product life cycle, prototypes, critical analysis and evaluation.	Course work portfolio Section D - Development of design proposals. Mock examination.
Spring 2	Students will continue their NEA. They will continue to develop ideas and begin building prototypes and working closely with their client to develop their project.	Course work portfolio Section D - Development of design proposals.
Summer 1	Students will continue their NEA. They will create a final design and a manufacturing	Course work portfolio Section E - Development





	specification. Students will begin making their final project. Environmental issues, quality assurance and standards in product design will be considered and students will revise previously taught topics.	of design prototypes and analysing and evaluating.
Summer 2	Students will complete their NEA. They will produce their final product and evaluate it against the specification. Students will revise previously taught topics in preparation for their examination.	Students will present a finished portfolio showing completed sections A, B, C, D and E of their product. As well as a final finished made product.

Co-Curricular:

Students will look into the history of designers and how times effected the different design eras. Students will have to apply mathematics to solve practical problems. They will develop literacy skills through the need to communicate effectively for different purposes and audiences and scientific principles will be applied to the study of materials and their properties.

