Heathcote School and Science College

Design & Technology: Product Design

Transition Guide 2018 - 2019

A-level Design and Technology Product Design [7552]

This creative and thought-provoking qualification gives students the practical skills, theoretical knowledge and confidence to succeed in a number of careers; especially those in the creative industries. You will investigate historical, social, cultural, environmental and economic influences on design and technology, whilst enjoying opportunities to put your learning in to practice by producing prototypes of their choice. Students will gain a real understanding of what it means to be a designer, alongside the knowledge and skills sought by higher education and employers.

A-level Design and Technology: Product Design requires students to engage in both practical and theoretical study. This specification requires students to cover design and technology skills and knowledge as set out below. These have been separated into:

• Technical principles
• Designing and making principles.

Students should develop the ability to draw on and apply a range of skills and knowledge from other subject areas to inform your decisions in design and the application or development of technology. There are clear links between aspects of the subject content and other subject areas such as Computer Science, Business Studies and History. This is not an exhaustive list, and there are other opportunities within the subject for students to integrate and apply your wider learning and understanding from other subject areas studied during Key Stage 4, as well as those subjects that you are studying alongside A-level Design and Technology. Students must also demonstrate maths and science skills.

This is a linear qualification. In order to achieve the award, students must complete all assessments at the end of the course and in the same series.
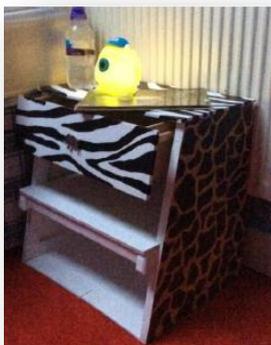
In year 12 pupils will be taught in two strands with the aim of developing key skills and subject knowledge to develop creativity and problem-solving skills. In the first four weeks pupils will be set two challenges that will expose you to designing and making at the very beginning of the course resulting in two tangible product outcomes that will be assessed. From this point pupils will then tackle a large-scale product by designing a dual-function lighting product in strand one whilst tackling two smaller projects in strand two with the outcome result being a designer scaled model chair and designer quintessential London mirror product.

Moving onto year 13 pupils will develop their own project brief with the ley aim of designing a product that meets the needs of a target client group. Pupils will be encouraged to look at issues from a range of different groups and produce a project proposal. Once the project has been agreed pupils will then work independently with guidance from teachers and technicians on a quality outcome that meets the requirements of their target client group and meets the points of the assessment criteria.
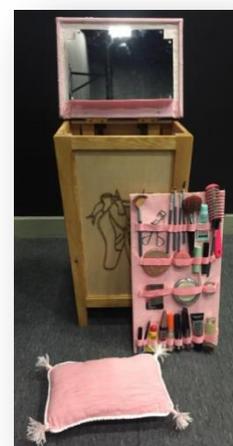
Examination

The exams and non-exam assessment will measure how students have achieved the following assessment objectives.

- AO1: Identify, investigate and outline design possibilities to address needs and wants.
- AO2: Design and make prototypes that are fit for purpose.
- AO3: Analyse and evaluate:
    - Design decisions and outcomes, including prototypes made by students and others
    - Wider issues in design and technology.
- AO4: Demonstrate and apply knowledge and understanding of:
    - Technical principles
    - Designing and making principles.

Assessment objectives (AOs)	Component weightings			Overall weighting
	Paper 1	Paper 2	NEA	
AO1			15	15
AO2			25	25
AO3	7.5	7.5	10	25
AO4	22.5	12.5		35
Overall weighting of components	30	20	50	100

Non Exam Assessment [NEA]

Students must undertake a small-scale design and make task and produce a final prototype based on a context and design brief developed by the student. With reference to the context, students will develop a specific brief that meets the needs of a user, client or market. The brief must be of an appropriate level of complexity and contain a degree of uncertainty of the outcome so that students can engage in an iterative process of designing, making, testing and evaluating.

	Section	Criteria	Maximun marks
AO1 (30 marks) **Identify, investigate & outline design possibilities**	A	Identifying and investigating design possibilities	20
	B	Producing a design brief and specification	10
A02 (50 marks) **Design & make prototypes that are fit for purpose**	C	Development of design proposal(s)	25
	D	Development of design prototype(s)	25
A03 (20 marks) **Analyse & evaluate**	E	Analysing and evaluating	20

Students must produce a final prototype based on the design brief they have developed, along with a written or digital design folder or portfolio. Students must produce a written or digital design folder clearly evidencing how the assessment criteria have been met together with photographic evidence of the final manufactured prototype outcome.