

A-Level: Product Design - prior reading and activities list:

Course specification: AQA Design and Technology: Product Design (7552) <http://www.aqa.org.uk/subjects/design-and-technology/as-and-a-level/design-and-technology-product-design7552> Subject Textbooks:

These books have been written to aid the learning for this course. An online version will be provided to you at the start of the course, however, if you prefer having a hard copy these are the details: Design & Technology Product Design (published late October 2017) Hodder: Will Potts, Julia Morrison, Ian Granger, Dave Sumpner

A sample is available here: <http://filestore.aqa.org.uk/textbooks/sample/asand-a-level/design-and-technology/AQA-7551-7552-HODDER-SAMPLE.PDF>

Further Reading: (You are not expected to buy these to read, but may be able to access them from a library or online source)

- Design Museum: Contemporary Design
Catherine McDermott
- Process: 50 Product Designs from Concept to Manufacture
Jennifer Hudson
- The Eco-Design Handbook
Alastair Faud –Luke
- Designs of the Times
Lakshmi Bhaskaran
- Arts & Crafts Companion
Pamela Todd
- Bauhaus
Benedict Taschen

Further Reading - continued: (You are not expected to buy these to read, but may be able to access them from a library or online source)

- Memphis
Brigitte Fitoussi
- The Measure of Man and Women: Human Factors in Design
Alvin R Tilley & Henry Dreyfuss Associates

A-Level Product Design Preparation

Designers:

Students should be aware of, and be able to discuss, the work of influential designers and how their work represents the principles of different design movements.

This should include their formal training, their participation in any design movements, their style, the media they work with and any pieces of their work that demonstrate their style.

Design Styles and Movements:

Students should be aware of, and be able to discuss, key design styles and movements and their principles of design.

You will need to focus on the origin of the design style/movement, the main contributors and the key features of design within that style. It would also be good to consider the socio-economic influences of those movements, such as trends and fashion, or major influences such as the war.

Major developments in technology:

Students should be aware of, and be able to discuss, how major developments in technology are shaping product design and manufacture, for example:

- Micro electronics
- New materials
- New methods of manufacture
- Advancements in CAD/CAM

Watching episodes of 'How it's Made' or 'Extreme Engineering' will provide insight to designers overcoming issues related to technological development and constraints in manufacturing and processes.

Brief outline of Product Design A level in year 12:

- We start with research into ‘design eras’ Gothic, Art Deco etc.
- We then look at famous designers and their iconic products – e.g. Juicy Saliffe – Philippe Starck etc.
- We discuss ‘inclusive design’ issues including social housing in low-income areas
- We complete material research focusing on properties and manufacturing processes for different materials exploring wood, metal and plastics and then drill down to specific materials
- We complete wire modelling of the Wassily chair (Marcel Breuer)
- We complete architecture modelling using Fusion 360 (CAD software) – College campus project
- We complete Architectural modelling using Foamcore
- We design a rocket using Fusion 360
- We design and make a toothbrush holder made from a polymer (acrylic)
- For each of these objects the student needs to produce several pages of sketches showing development of the idea – sketches should develop into isometric, orthographic, 1-point and 2-point perspective and then render their sketches to represent material choice
- We also deliver theoretical content and practice several mock exam papers throughout the year

Each topic is led by a member of the team depending on timetabling and delivered over a specified timeframe discussed at the start of each mini project.

Year 13 is spent completing the NEA folder and further exam practice for the two external exams.