



Sixth Form Preparation for Success

Welcome to D&T (Product Design)

AQA Product Design 7552



Introduction

Every product we use from a pen to an airliner has been through the design process. The product designer is number one in this process and has total control over the appearance and performance of the end product. Creativity is key in this subject and this preparation process will help you gain the necessary skills and understanding needed to succeed in Product Design.

Part I – Y11 into 12 Product Design Bridging Work

Remember that prizes will be awarded for 'exceptional' work that demonstrates effort above expected !

a) Investigate places of interest

You can obtain a considerable amount of information and guidance by visiting places of interest linked to the subject you intend to study. To get a feel for Product Design a museum is an obvious place to start and always makes for a great day out.

Places of interest that Product Design Students may wish to visit include:

- Doncaster Museum and Art Gallery, Chequer Road, Doncaster, DN1 2AE
- Cusworth Hall museum, Doncaster, DN5 7TU
- National Coal Mining Museum for England, Caphouse Colliery, New Road, Overton, Wakefield, WF4 4RH
- The Design Museum, 224-238 Kensington High Street, London, W8 6AG
- Victoria and Albert Museum, Cromwell Rd, Knightsbridge, London SW7 2RL

Apart from the obvious attractions, each of the above museums provide a valuable record of how products and manufacturing has changed over the years. Cusworth hall in particular is the most important place to visit. Upstairs in the main house you will find a fine

display of vintage household equipment including vacuum cleaners, washing machines, TV and video equipment etc. The changes in design over the years are fascinating and blatantly obvious. When visiting you should make note of the materials, processes and construction methods used in years gone by. How and why has the design of the Kettle or clothes iron changed over the past 100 years and why don't we make them this way anymore? Apply these thoughts to the exhibits as you explore and bring any questions with you in September. Take many photographs as these can be included in your Design folder in September.

b) Wider reading

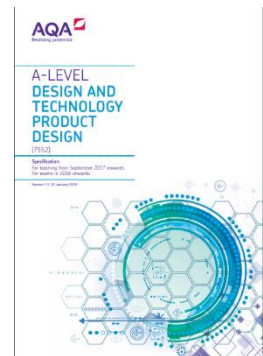
The first port of call for students studying any subject must be the exam board specification. Here you will find all details of the course and what topics you need to cover. You can put together a list of topics and tick them off as your tutor covers them.

- [AQA A Level specification 7552 free download from AQA .](#)

Pay particular attention to the materials section from page 10 to 20.

The Hodder revision guide is very useful.

- My Revision Notes: AQA A Level Design and Technology: Product Design Paperback – 29 Jun. 2018.



There is a wealth of excellent information online but in particular you should look at the following websites:

- Who are the 10 most influential Product Designers of all time?
<https://designwanted.com/design/10-most-influential-product-designers/>
- 10 British Product Designers You Should Know - Culture Trip
<https://theculturetrip.com/europe/united-kingdom/england/articles/10-british-product-designers-you-should-know/>
- 25 inspiring examples of industrial design | Creative Bloq
<https://www.creativebloq.com/product-design/examples-industrial-design-12121488>

c) Compulsory tasks

Task: 1) The chair has been the classic product to be studied by designers for thousands of years. Investigate the chair and produce a pictorial timeline with as many different examples of chairs (challenge yourself by finding at least 30) from the three legged stool to the all plastic school chair.

Task: 2) The clothes iron has developed rapidly in the past 30 years. Investigate the iron and produce a list of key features of: The smoothing iron, The charcoal iron, The gas iron, The electric iron, The steam iron, The steam generator iron.

Task: 3) Access BBC I player and listen to the three radio 4 programs from the Fantastic Plastic series: What's the solution, Things start to go stale, First flush of love.

Task: 4) Visit and explore the Plastipedia web site.

Task: 5) For each of the products shown below identify the products name, designer and the manufacturer.



d) Stretch!

Make notes on the following YouTube videos:

1. How the Alessi Bird Kettle is made
2. Prime Studio Product Design
3. Science, Engineering, and Design! Videos 1 to 6 (By the Massachusetts Institute of Technology)
4. Design classics The Barcelona Chair.
5. Design classics The Sony Walkman:

Start putting together a range of useful information you have gained in your investigations above. Collate this into a PowerPoint document so you may use it as a drop-in point to access information when completing your coursework design folder

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Part II - Year 12 Head Start! for completion June – September

Part a) The Specification

In order for you to gain a head start in D&T Product Design before the course begins in September you will need to familiarise yourself with the content of the specification. Use the following link to download the free exam board document:

<https://www.aqa.org.uk/subjects/design-and-technology/as-and-a-level/design-and-technology-product-design-7552>

Page 7 & 8 shows how you will be assessed and the basic details of the three independent assessments.

Pages 10 to 47 details the extensive content covered in this course. The details of coursework are dealt with from page 48 onward.



Part b) Scheme Of Work

The Scheme of Work can be downloaded from the teaching resources section via the link below:

<https://www.aqa.org.uk/subjects/design-and-technology/as-and-a-level/design-and-technology-product-design-7552/teaching-resources>

The timing and order of teaching may vary to account for staffing and timetable changes.

Part c) Resources

By far the best online resource for Design & Technology is Technology Student.COM. The index page for resistant materials has links to hundreds of pages of useful information.

Follow the link to the index page below:

<http://www.technologystudent.com/joints/joindex.htm>

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Part d) Books

It is not a course requirement for you to buy your own books but if you may wish to buy, new or used, if you like to keep for your own reference and be able to write in your own notes. There is a dedicated text book for this course published by Hodder. Amazon link below and Kindle version available too:

https://www.amazon.co.uk/AQA-AS-Level-Design-Technology/dp/1510414088/ref=sr_1_1?crid=2QRU9CSLX2C3N&dchild=1&keywords=aqa+product+design+a+level&qid=1591305971&srefix=aqa+product+design%2Caps%2C169&sr=8-1

There is also a more readable and very useful book of revision notes. Amazon link below:

[https://www.amazon.co.uk/My-Revision-Notes-Technology-](https://www.amazon.co.uk/My-Revision-Notes-Technology-Product/dp/1510432299/ref=sr_1_2?crid=2QRU9CSLX2C3N&dchild=1&keywords=aqa+product+design+a+level&qid=1591305971&srefix=aqa+product+design%2Caps%2C169&sr=8-2)



[Product/dp/1510432299/ref=sr_1_2?crid=2QRU9CSLX2C3N&dchild=1&keywords=aqa+product+design+a+level&qid=1591305971&srefix=aqa+product+design%2Caps%2C169&sr=8-2](https://www.amazon.co.uk/My-Revision-Notes-Technology-Product/dp/1510432299/ref=sr_1_2?crid=2QRU9CSLX2C3N&dchild=1&keywords=aqa+product+design+a+level&qid=1591305971&srefix=aqa+product+design%2Caps%2C169&sr=8-2)

Both of the publications above are written specifically for the AQA A-level course.

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Part e) Tasks

Because of the large number of materials you need to be familiar with we suggest you start by making notes on the materials listed in the table below. For each material state the advantages, disadvantages, properties and examples of where they are used. The majority of information is available on Technology Student.com. Follow the resistant materials index page to the information

WOOD	METAL	POLYMERS	PAPER & BOARD
<p>softwoods:</p> <ul style="list-style-type: none"> • pine • spruce • Douglas fir • redwood • cedar • larch <p>hardwoods:</p> <ul style="list-style-type: none"> • oak • ash • mahogany • teak • birch • beech <p>manufactured boards:</p> <ul style="list-style-type: none"> • plywood • marine plywood • aeroply • flexible plywood • chipboard • medium density fibreboard (MDF) • veneers • melamine • formaldehyde • laminates. 	<p>ferrous:</p> <ul style="list-style-type: none"> • low carbon steel • stainless steel • high speed steel (HSS) • medium carbon steel • cast iron <p>non-ferrous:</p> <ul style="list-style-type: none"> • aluminium • copper • zinc • silver • gold • titanium • tin <p>ferrous alloys:</p> <ul style="list-style-type: none"> • stainless steel • die steel (tool steel) <p>non-ferrous alloys:</p> <ul style="list-style-type: none"> • bronze • brass • duralumin • pewter. 	<p>thermoplastics:</p> <ul style="list-style-type: none"> • low density polyethylene (LDPE) • high density polyethylene (HDPE) • polypropylene (PP) • high impact polystyrene (HIPS) • acrylonitrile butadiene styrene (ABS) • polymethylmethacrylate (PMMA) • nylon • rigid and flexible polyvinyl chloride (PVC) • Polyethylene terephthalate (PET) <p>thermosets, with specific reference to their use:</p> <ul style="list-style-type: none"> • urea formaldehyde (UF) • melamine formaldehyde (MF) • polyester resin • epoxy resin. 	<p>papers</p> <ul style="list-style-type: none"> • layout paper: sketch pads • cartridge paper: printing • tracing paper: copying images • bleed proof paper: marker rendering • treated paper: photographic printing • watercolour paper: painting <p>cards and high quality packaging</p> <ul style="list-style-type: none"> • corrugated card: packaging • bleached card: greeting • mount board: modelling • duplex card: food packaging • foil backed and laminated card: drinks packaging • metal effect card: gift box packaging • moulded paper pulp: eco-Friendly packaging.

We look forward to working with you in Year 12!