

AQA Design and Technology

Year 11 into A Level - Bridging information and requirements over the summer.

Before you arrive to A level D&T in September, you need to complete the following tasks...

- 1) Print off the specification (7552) and familiarise yourself with the topics and content you will need to know by the end of this course. (Pages 9-46) You will find the spec on the link below.
- 2) Highlight the key points that you have already covered on your GCSE course.

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

- 3) Buy a folder and some dividers (pack of ten), put the specification as the first section in your folder.

Present the work below on paper with your name clearly on each page, ready to hand in the first lesson in year 12. The quality and depth of work you hand in on the first lesson will indicate if you will be staying on the course.

Below you will find tasks to work on each week, keep all this work and bring it to your first D&T A Level lesson.

Task 1

After reading the specification write on lined what your thoughts are about the course,

What are you expectations of the course?

How is it different to your GCSE course?

Are there any surprises?

What might be a challenge? How might you overcome these challenges?

How might your studying habits need to evolve to be successful in passing this course?

What are your thoughts on the Maths and Science content of this specification?

What skills will you build on?

What do you understand about the NEA? How is it different from your GCSE course?

Task 2

To build your knowledge of production processes you need to research the following and give advantages and disadvantages of each:

1. Injection moulding
2. Die casting aluminium
3. Just in time manufacturing
4. Lean manufacturing

You might want to present this work as a table, or as 4 separate sheets of research. Include example products and where each type of manufacturing might be used in industry.

Task 3

Research and produce a write up, with a step by step of processes for each of the following different forming methods, name specific products and scales of production (one off, batch, mass etc)

- vacuum forming
- thermoforming
- calendaring
- line bending
- laminating (layup)
- injection moulding
- blow moulding
- rotational moulding
- extrusion

Task 4

Steel is a widely used metal for many things, ranging from tin cans to making huge cargo ships.

Research how we get it from a raw material to the product we see today and what is done with it once it has fulfilled its intended job. Present your research in a creative way including the key words - mining, ore, smelting, annealing, tempering.

Task 5

Wider Research

Below is a list of links to relevant websites, articles, videos and shows.

These are here purely to extend your knowledge of current trends in design and how it is currently being used in the world today.

Evidence any wider reading you do by summarising what you have learned. (potentially through bullet points, a review, a small paragraph, a reflective piece of writing or any other media you find appropriate such as trying out some of the drawing techniques)

1. <https://99percentinvisible.org/?fbclid=IwAR3-foomjkomcOnvRDw79upF5BnrVkY9W5cuU2ix82ntkjuYOL6qEsJ4L84> – A long series of podcasts about products and other ways in which design has impacted the world
2. <https://www.bbc.co.uk/programmes/b08k9pv0?fbclid=IwAR1O-REp7H72oZnoEemZZ6Bby7mXouo019xlfZR1wuENSAAoFKI--NPhqXo> – Podcast about ideas and inventions that created the modern world.
3. <https://www.dezeen.com/design/> - podcasts, articles, design newsletters and magazine.
4. <https://www.bbc.co.uk/programmes/m000gwzg> How to Make series starts beginning of April on BBC Four
5. <https://www.bbc.co.uk/iplayer/episode/m0007trf/bauhaus-100> Bauhaus 100
6. <https://www.bbc.co.uk/programmes/b05ttnd7> Handmade craft
7. <https://www.bbc.co.uk/programmes/b09rfb1v> Inside story of IKEA