

North Halifax Grammar School – A Level Transition Work

## A level Design Technology: Product Design

### **Specification**

AQA GCE DT: Product Design

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

#### The course is divided into the following 3 assessments

Paper 1:Technical Principles 30% A Level

Paper 2: Design and Make Principles 20% A Level

**NEA Task:** Practical application of technical and design and make principles 50% A Level

### **Course Overview**

Year 1 Subject Content	Year 2 Subject Content
<ul> <li>Technical Principles 3.1</li> <li>Design and Make Principles 3.2 (practice skills-based projects)</li> <li>DMP 3.2 start actual NEA Task</li> </ul>	<ul> <li>Technical Principles 3.1</li> <li>Design and Make Principles 3.2 (actual NEA Task)</li> </ul>

## **Essential Reading / Revision**

AS and A-level Design and Technology: Product Design



Authors: Will Potts, Julia Morrison, Ian Granger, Dave Sumpner Publisher: Hodder

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# Transition work for Design Technology A level students

- 1. List the different types under the 5 main material categories below:
  - a. Timber
  - b. Metals
  - c. Plastics/Polymers d. Paper & Board

  - e. New Materials
- 2. Define what is meant by thermoplastic material.
- 3. Define what is meant by thermosetting material.
- 4. Define what is meant by an elastomer material.
- 5. Research a common set of thermosets by listing their:
  - a. Name
  - b. Characteristics
  - c. Common Names
- 6. Research a common set of thermoplastics by listing their:
  - a) Name
  - b) Characteristics
  - c) Common Names
- 7. Define the difference between softwoods, hardwoods and manufactured woods.
- 8. List the different types of timber under the following headings:
  - a) Softwood
  - b) Hardwood
  - c) Manufactured wood



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9.



#### Task 1:

- Conduct a product analysis of this chair, or a similar timber chair using ACCESSFMM. (aesthetics, cost, consumer, environment, safety, size, function, materials and manufacture)
- Present your findings with an image in the middle of the page.
- Pay special attention to the manufacturing & materials.

#### Task 2

 Write a paragraph explaining how this product would be 'batch manufactured' (making between 1 & 10,000 of the product in batches')

### **Relevant questions**

- What paints and finishes have been used on the timber?
- How are the legs attached to the seat base?
- 10. Define the difference between a ferrous and non-ferrous metal.
- 11. Define an alloy metal.
- 12. Research a common set of non-ferrous metals by listing their:
  - a) Name
  - b) Characteristics
  - c) Uses
- 13. Research a common set of ferrous metals by listing their:
  - a) Name
  - b) Characteristics
  - c) Uses