

Y9 Summer Exam 2023

Revision Topics

There will be one exam:

- A 1 hour written exam
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1-Timbers and boards

- Hardwoods, softwoods and manufactured boards
 - ❑ Identification
 - ❑ Differences
 - ❑ Sustainability issues
- Properties of timbers
 - ❑ Faults and structure
- Joining methods
 - ❑ Mechanical, permanent and non-permanent fixings
 - ❑ Standardised components

2-Scales of manufacture

- Batch production
 - ❑ Methods
 - ❑ Economies of scale
 - ❑ Tolerance fit

3-Wider Issues in design

- The 6 R's in Sustainability
- Reducing waste
- Designing for disassembly
- Circular Economy
- Concepts of Trademarks, Licence and Copyright
- Consumerism in the global Economy

4-Drawing conventions

- Isometric/Orthographic

5-Mathematical calculations

- board sizes, lay planning, calculating area

6-Mechatronics

- Prototyping electronic systems
- Mechanical devices (Levers, Cams, Pulleys, Gears)

7 - CAD/CAM

- CAD/CAM V's traditional manufacturing
- Open Source - advantages and disadvantages