



Topic Lists for Revision

Subject: Design & Technology 2023

Topic or component: Written exam

Core Principles

New and Emerging Technologies

- Industry and Enterprise
- Sustainability and the environment
- People, culture, and society
- Production techniques and systems
- Informing design decisions

Energy, materials, systems, and devices

- Energy generation
- Energy storage
- Modern materials
- Smart materials
- Composite and technical textiles
- Systems approach to designing.
- Electronic systems processing
- Mechanical devices

Materials and their working properties

- Papers and boards
- Natural and manufactured timbers
- Metals and alloys
- Polymers
- Textiles

Specialist technical principles

Common principles

- Forces and stresses on materials and objects
- Improving functionality
- Ecological and social footprint
- The six R's
- Scales of production

Paper and boards

- Sources, origins, and properties
- Working with papers and boards
- Stock forms, types & sizes
- Commercial manufacturing, surface treatments and finishes

Timber based materials

- Sources, origins, and properties

- Working with timber based materials
- Stock forms, types & sizes
- Commercial manufacturing, surface treatments and finishes

Designing and making principles

Designing principles

- Investigation, primary and secondary data
- Interpreting & displaying data
- Mathematics
- Ergonomics & Anthropometrics
- Product analysis
- The work of others
- Design strategies
- Communication of design ideas and prototype development
- Social, moral & environmental impacts

Making principles

- Selection of materials and components
- Tolerances and allowances
- Material management and marking out
- Specialist tools, equipment, techniques and processes
- Surface treatment and finishes

Strategies and Resources for Revision:

Bitesize

<https://www.bbc.co.uk/bitesize/examspecs/zby2bdm>

Revision guides

<https://www.amazon.co.uk/GCSE-Design-Technology-Pocket-Posters/dp/B07J5LLGXQ>

<https://www.amazon.co.uk/Grade-Design-Technology-Revision-Guide/dp/1782947523>

youtube

<https://www.youtube.com/playlist?list=PLFrGcy2dv8TuxsqQJezvJjEla9GxSLK6K>

revision site

<https://studyrocket.co.uk/revision/gcse-design-and-technology-aqa>

past papers

<https://revisionworld.com/gcse-revision/design-technology/gcse-design-and-technology-past-papers-0/aqa-gcse-design-and-technology-past-papers>