

# KS4 Design Technology Topic List

## Section 1 New & Emerging Technologies

- Industry & Enterprise
- Sustainability & the Environment
- People, Culture & Society
- Productions Techniques & Systems
- Informing Design Decisions

## Section 2 – Energy, Materials, Systems & Devices

- Energy Generation
- Energy Storage
- Modern Materials
- Smart Materials
- Composite Materials & Technical Textiles
- Systems Approach to Designing
- Electronic Systems Processing
- Mechanical Devices

## Section 3 – Materials & their working properties

- Paper & Boards
- Natural & Manufactured Timbers
- Metals & Alloys
- Polymers
- Textiles

## Section 4 – Common Specialist Technical Principles

- Forces and stresses on materials and objects
- Improving functionality
- Ecological and social footprint
- The 6 R's
- Scales of production

## Section 5B – Timber Based Materials

- Sources, Origins & Properties
- Working with Timber Based Materials
- Commercial Manufacturing, Surface Treatments & Finishes