

Unit 1 AQA Exam Question Tips

Key questions from exemplar exams – variations of the questions below have featured in previous exams.

It is important to consider the following:

- What the key words mean in each question?
- What they are asking you to do?
- How many marks they are worth?

Use the Collins Revision Book provided, and revision post cards as specified on GO4 Schools GCSE Revision Homework.

Section A – Core Technical Principles

<https://www.aqa.org.uk/subjects/design-and-technology/gcse/design-and-technology-8552/subject-content/core-technical-principles>

The first 10 questions are multiple choice

(1 mark for each question) **10 marks**

The next 5 questions carry 2 marks each and will involve short written responses and calculations based on Maths/Science principles. **10 marks**

They should be based on a sound knowledge of the following topics

- new and emerging technologies
- energy generation and storage
- developments in new materials
- systems approach to designing
- mechanical devices
- materials and their working properties.

(1 mark for each question) **10 marks**

Total of 20 marks

Link to exam style questions below;

<https://filestore.aqa.org.uk/resources/design-and-technology/AQA-85521-SQP.PDF>

Section B – Specialist Technical Principles

<https://www.aqa.org.uk/subjects/design-and-technology/gcse/design-and-technology-8552/subject-content/specialist-technical-principles>

In addition to the core technical principles, all students should develop an in-depth knowledge and understanding of the following specialist technical principles:

- selection of materials or components
- forces and stresses
- ecological and social footprint
- sources and origins
- using and working with materials
- stock forms, types and sizes
- scales of production
- specialist techniques and processes
- surface treatments and finishes.

The categories through which the principles have been delivered are in bold;

- **papers and boards**
- **timber based materials**
- metal based materials
- polymers
- textile based materials
- **electronic and mechanical systems.**

Link to exam style questions below;

<https://filestore.aqa.org.uk/resources/design-and-technology/AQA-85521-SQP.PDF>

Total of 30 marks

Section C – Designing and Making Principles

<https://www.aqa.org.uk/subjects/design-and-technology/gcse/design-and-technology-8552/subject-content/designing-and-making-principles>

Students should know and understand that all design and technology activities take place within a wide range of contexts.

They should also understand how the prototypes they develop must satisfy wants or needs and be fit for their intended use. For example, the home, school, work or leisure.

They will need to demonstrate and apply knowledge and understanding of designing and making principles in relation to the following areas:

- investigation, primary and secondary data
- environmental, social and economic challenge
- the work of others
- design strategies
- communication of design ideas
- prototype development
- selection of materials and components
- tolerances
- material management
- specialist tools and equipment
- specialist techniques and processes

(50 marks)

50 marks – This question is worth the biggest amount of marks and so should consist of several long paragraphs. The use of specialist language is also important to achieve a higher mark and so is giving really clear reasons why you chose your responses.

Link to exam style questions below;

<https://filestore.aqa.org.uk/resources/design-and-technology/AQA-85521-SQP.PDF>