

AQA Design and Technology

Exam Board: AQA

Exam: *2 hours long*

Skills:

Core Technical Principles

Specialist Technical Principles

Designing and Making Principles

The paper has 3 sections:

Section A: Core Technical Principles-multiple choice questions

Section B: Specialist Technical Principles – extended writing

Section C: Designing and Making Principles – extended writing and designing questions.

Unit 1 – The Exam

- This is the first year of the exam using this specification. Students have practised example exams in Year 10 and in Year 11. The AQA website has example exam question papers which can be used for revision.
- Students will have revision lessons after the Easter break to explore and develop their responses to exemplar questions set by AQA and PG online.

Unit 1 AQA Exam Question Tips

- Key questions from AQA and PG online– 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

Please Note, the maximum mark for this paper is 100. • There are 20 marks for Section A. 30 marks for Section B and 50 marks for Section C.

SECTION A - Core Technical Principles

'Questions 1-10 are multiple choice questions. For multiple choice questions you should shade in one lozenge. If you make a mistake, cross through the incorrect answer and shade the correct response. '

In order to make effective design choices students will need a breadth of core technical knowledge and understanding that consists of:

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

Multiple choice questions carry 1 mark each

The next 5 questions carry 2 marks for each correct response

Questions in this section will include Maths and Science based challenges which will require the use of basic kit like protractors and compasses.

SECTION B - Specialist Technical Principles

Encourage your child to make full use of the notes they have made on their revision post cards as specified in the homework provided on GO4 Schools in Spring Term 1 and 2 and Summer term 1. The Revision guide provided clearly defines areas of study for the exam.

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.

SECTION C – 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

Planning

Help them to organise their ideas and plan a response. Encourage them to do the following:

1. Read the question and highlight the key words to establish what you are being asked to do
2. Consider what the question is asking you and how many marks it is worth – this will determine how long the response should be
3. Note down what you want to include in your answer and use numbers to divide these into paragraphs – check these off as you are writing to ensure you have included everything you planned to

You can find past papers and mark schemes here:

<https://www.aqa.org.uk/subjects/design-and-technology/gcse/design-and-technology-8552>

<https://www.aqa.org.uk/subjects/design-and-technology/gcse/design-and-technology-8552/specification-at-a-glance>

Other related documents can be found here:

www.technologystudent.com