

**Subject: Design and Technology GCSE – Mock Exam December 2021**

**Exam Board: AQA**

**Mock paper: 2 hours 50% of overall grade**

**Content:**

What's assessed

- Core technical principles
- Specialist technical principles
- Designing and making principles

In addition:

- at least 15% of the exam will assess maths

How it's assessed

- Written exam: 2 hours • 100 marks • 50% of GCSE Questions

Section A – Core technical principles (20 marks) A mixture of multiple choice and short answer questions assessing a breadth of technical knowledge and understanding.

Section B – Specialist technical principles (30 marks) Several short answer questions (2–5 marks) and one extended response to assess a more in-depth knowledge of technical principles.

Section C – Designing and making principles (50 marks) A mixture of short answer and extended response questions

Outline content:

Section A

Renewable energy

Planned obsolescence

Electrical components

Smart materials

Textile fabrics

Technology push

Robotics

Kinetic pump storage

Cams, gears, pulleys and levers

Properties of materials

Metals and alloys

Composite materials

Components of a System

Section B

Manufacturing processes

Bulk buying and ethical factors

Materials and their stock forms

Finishes for materials

Responsible design

Pollution and the environmental impact

Mass and batch production

Section C

Design features of companies

Product evolution

Ergonomics and anthropometrics

Primary and Secondary research

Bar charts  
Product Specifications  
Two-point perspective  
Nesting and cutting techniques  
Prototypes

Maths questions – you must know how to calculate the;  
Area of a rectangle  
Multiplication to find out total costs of products  
Percentages  
Calculating Angles  
Volume

**Useful revision resources:**

List websites, links to past papers, books etc here  
GCSE pod  
[www.technologystudent.com](http://www.technologystudent.com)

Homework tasks including multiple choice questions practice.

**Revision guides**

CGP GCSE AQA Design and Technology -The Revision Guide (all students have one of these books at home).

**Revision Tips**

**Section A**

Please make sure you read the multiple-choice questions fully before answering.  
Answer by shading in the lozenge.

**Section B**

Please make sure you answer your questions in full no one word answers lots of detail.

**Section C**

Practice your drawing techniques.  
Use the Maths revision guide questions to help with the Maths questions.