



A Level **Design & Technology** 7552/2

Report on the examination

Version: 1.0
June 2025

Further copies of this report are available from aqa.org.uk

AQA retains the copyright on all its publications. However, registered centres for AQA are permitted to copy material from this booklet for their own internal use, with the following important exception: AQA cannot give permission to centres to photocopy any material that is acknowledged to a third party even for internal use within the centre.

Question 1

Students were asked to compare two pens using photos and table of information.

- Students were familiar with the question style and responses showed insight and detail.
- Low level responses often simply quoted given information without expansion and didn't give specific manufacturing processes for the pens.
- There was little focus on the assembly of each pen for large scale production.
- There were generic statements on recycling without any explanation or context of how this fitted in with the consumption of raw materials for large scale production.

Question 2

Students were asked to explain how testing would be used by manufacturers to meet quality control requirements.

- There was an over reliance on the term "visual inspection" without any explanation of what measurement or dimension were getting inspected.
- Responses rarely referred to the use of metrology equipment or testing instruments for quality control.
- Acceptable measuring methods were often given; they were however often not specific to the pens and their dimensions or features.

Question 3

Students were asked to state two sustainability issues with oil-based inks.

- This question was well answered and showed awareness of sustainability issues in the use of manufactured goods.
- Where students used unspecific or general statements, unrelated to oil-based ink, they scored lower.

Question 4

This is the first of three mathematical questions and students were asked to calculate the diameter of a hole that holds a sphere.

- The common mistake was not showing working out and therefore making errors in the rearrangement of equations.

- Rounding throughout and the final answer, also caused students missing out of full marks.

Question 5

Students were asked to explain how the concept of a circular economy applied to disposable pens.

- High level answers included detail on the difference between technological and biological nutrients within a circular economy and related this well to the disposable pens.
- Low level answers relied heavily on basic waste management and recycling methods within the given answers.
- Overall, there was less emphasis on energy expenditure, reduction and CO₂ production.

Question 6

Students were asked to identify two health and safety hazards and appropriate control measures within a school workshop.

- Students were very familiar with the context of this question and answers were varied and detailed across the level bands.
- Common mistakes were using the same control method for both hazards, for example the wearing of an apron (any named PPE).

Question 7

Students were asked to outline how two lights conformed to the design principles of the modernist design movement.

- Students were clearly able to identify key features of modernism such as colour, shape, form and materials. With the majority of answers focusing on form, shape, colour and the concept of function over form.
- High level answers were able to identify Marianne Brandt as a Bauhaus designer that headed up the metal work division.
- “Everyday objects for everyday people” featured positively in responses.
- Low level answers simply described the pictures of the two given examples.

Question 8

Students were asked to explain how designers use specific labelling to encourage recycling.

- High level answers gave specific labelling, such as the Mobius loop and Polymer (SPI) codes, along with naming polymers that match the codes.
- As seen in previous questions, there was a reliance on generic recycling descriptions, with little to no detail about packaging.

Question 9

Students were asked to analyse and evaluate how a live dashboard has been designed for ease of use.

- This topic was very familiar and accessible for many students and as such provided many different answers across the full mark range.
- High level answers gave detailed analysis and recognised the positive and negative impacts on the user, while driving.
- Low level answers described the image and did not include detail about the positioning of different symbols, gauges or information presented to the driver.

Question 10

Students were asked to describe the purpose of six sigma.

- Lots of students did not answer this question and left the space provided blank.
- Low level answers mainly gave half a definition of six sigma and were not able to recognise that it is used in manufacturing. Many of these answers gave responses relating to sustainability only.
- High Level answers gave full and complete definitions, including 3.4 errors per million, recognised it is used in manufacturing and is about reducing error rates and waste.

Question 11

The second mathematical question where students were asked to calculate the time to fill a mould cavity.

- This question on the whole was well answered and many more students attempted it when compared to previous series.
- There were errors in rounding to the correct decimal place.
- Students sometimes forgot to use the information that was provided.

Question 12

Students were asked to outline how designers redevelop electronic products.

- High Level answers recognised concepts, such as rethinking or reimagining designs, in conjunction with the product life cycle graph.
- Top mark answers related these concepts to the impact on the economy and sales for retailers. These answers had a real depth of knowledge and understanding.
- There was less focus overall on the use of celebrity endorsements, promotional deals and packaging/style updates to match with consumer trends.

Question 13

Students were asked to discuss the developments that have enabled product development between two room fans. Two pictures were provided along with a table of information.

- Overall, this question was well answered with most students attempting the question.
- High level answers really connected the miniaturisation of electronics and connection to the internet with the Internet of Things (IoT) with the improved functionality of the newest fan.
- There was good recognition of how injection moulding can make more complicated shapes/forms. However, this was rarely linked to the mounting of the electronic components and circuit boards, how the case could be assembled during manufacturing or consideration of the air flow inside the fan.
- Few responses gave any link between Computer Aided Design (CAD) and testing, such as Computational Fluid Dynamics (CFD), Finite Element Analysis (FEA) or Mould Flow Analysis (MFD).
- Low level answers rewrote the table of information and described the differences between the material and aesthetic of each fan.

Question 14

The students were asked to calculate the co-ordinates of the centre hole C, given the Pitch Circle Diameter (PCD) and location of 6 evenly positioned holes.

- This question saw a mix of responses, most mistakes involved incorrect rounding early on in the calculation.
- Selection of the correct trigonometrical function or correct application of Pythagorean theorem caused confusion for many students.
- Many answers were not written in the form of a co-ordinate (x, y) and/or were not in decimals.
- As with all three of the mathematical questions on this paper, lots of students did not show working. This then limited the mark they could get, when written down incorrectly directly from their calculator.

Question 15

Students were asked to outline how Fairtrade has improved the ethical extraction of gold.

- Generally, there was a good understanding of Fairtrade and its principles.
- High level answers really brought together the different aspects of this question and related the goals of Fairtrade to the extraction of gold.
- Low level answers didn't recognise the specifics of the question and gave general Fairtrade principles that could apply to other products produced under the Fairtrade brand.
- There was very little focus on gold prices and their volatility due to many different factors and how Fairtrade negotiate and smooth this out for the miners.
- Few answers were about the longer-term stability of the Fairtrade mines with regards to communities, education, healthcare, maintenance of the environment, toxic waste management or sustainability of production on the mining sites.
- Very few answers related to a reduction in exploitation, child labour or modern-day slavery.

Mark Ranges and Award of Grades

Grade boundaries and cumulative percentage grades are available on the [Results Statistics](#) page of the AQA Website.