

Design & Technology

AQA GCSE

Technical textiles

Materials required for questions

- Pencil
- Rubber
- Calculator

Instructions

- Use black ink or ball-point pen
- Try answer all questions
- Use the space provided to answer questions
- Calculators can be used if necessary
- For the multiple choice questions, circle your answer

Advice

- Marks for each question are in brackets
- Read each question fully
- Try to answer every question
- Don't spend too much time on one question

Good luck!

Q1. Conductive textiles could be used to?

- A** Burn at high temperatures
- B** Change colour
- C** Illuminate Light Emitting Diodes

Q2. Micro encapsulation is used to make fabric?

- A** Anti-bacterial
- B** Conductive
- C** Stronger

Q3. Which one of the following is a technical textile?

- A** Brass
- B** Polyester
- C** Kevlar

Q4. What is the primary property of Kevlar that makes it useful in bulletproof vests and protective gear?

- A** High electrical conductivity
- B** High tensile strength-to-weight ratio
- C** High flexibility and elasticity

Q5. Give two reasons why blended and mixed fibres are used in clothing **(2 marks)**

Answers

Q1. C

Q2. A

Q3. C

Q4. B

Q5.

Typical basic responses:

- to produce different fibres with more desirable/enhanced properties
- improve durability in the fibre
- make fabric easier to care for
- make clothing less likely to shrink or crease.

You may see more detailed responses:

- to produce different fibres with more desirable/enhanced properties, eg polyester can mitigate against shrinkage, creasing and slower drying speed
- make a yarn (blend of two or more fibres) to make a better product
- improve durability in the fibre, eg poly-cotton (polyester and cotton mix)
- produce clothing more cheaply, eg poly-cotton is a cheaper material than pure cotton
- use of cotton with a synthetic material makes it more breathable hence comfortable to wear
- fabrics can be heat-set, eg trousers with a crease, anti-crease fabrics
- similar appearance to natural materials, eg cotton, and can accept a print or dye easily.