

Design & Technology

AQA GCSE

Environment

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. Which one of the following statements is true?

- A** Batteries can be safely thrown away with household rubbish
- B** Rechargeable batteries can only be used ten times
- C** Zinc carbon batteries leak and corrode

Q2. Which one of the following statements is true?

- A** Continuous improvement is the concept of storing waste
- B** Global warming is due to decreasing levels of carbon dioxide
- C** Pollution is created by the burning of fossil fuels

Q3. Which one of the following has a positive impact on the environment?

- A** Global warming
- B** Pollution
- C** Reducing waste

Q4. Which of these is the **most** effective strategy for manufacturers to reduce environmental impact?

- A** Implementing a continuous improvement system for sustainability
- B** Offsetting pollution by planting trees
- C** Using slightly less packaging than before

Q5. Analyse and evaluate how global warming concerns are affecting product design and manufacturing processes. Use examples where appropriate **(4 marks)**

Answers

Q1. C

Q2. C

Q3. C

Q4. A

Q5.

Award 1 mark for each valid point up to 4:

- **Material changes** - Shift to biodegradable/recycled materials (e.g., Adidas using ocean plastic in shoes)
- **Energy efficiency** - Renewable energy in factories (e.g., Tesla's solar-powered Gigafactories)
- **Waste reduction** - Circular economy principles (e.g., Philips' lighting-as-a-service model)
- **Transport impacts** - Localized production (e.g., 3D printing spare parts on-demand)