

Design & Technology
AQA GCSE

Social issues in the design and manufacture of products

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. How can industries reduce oceanic pollution?

- A** Dumping waste directly into rivers
- B** Treating wastewater before discharge
- C** Increasing plastic packaging use

Q2. What is a detrimental (negative) impact of uncontrolled industrial emissions?

- A** Improved air quality
- B** Respiratory diseases in nearby communities
- C** Increased biodiversity

Q3. What is a social responsibility of corporations?

- A** Maximizing profit while ignoring community health
- B** Ensuring operations don't harm local residents
- C** Avoiding all environmental laws

Q4. What is a key element of safe working conditions?

- A** Allowing unlimited overtime without breaks
- B** Ignoring hazardous material exposure
- C** Providing protective gear and training

[illegible]

Answers

Q1. B

Q2. B

Q3. B

Q4. C

Q5.

Oceanic pollution

- Pesticides and fertilisers being washed from the land by rain and carried by rivers into the sea.
- Chemicals and toxic materials like mercury and lead find their way into oceans. These then can enter to food chain and poison water supplies.
- Plastic which does not degrade is carried by rivers into the sea creating large pools of rubbish in the deep oceans where sea currents converge.
- Pollution of the seas from oil spills during extraction and tanker accidents.
- Oil and sewage pollution whilst better than in previous years, can still contaminate and pollute ecosystems and marine life eg coastlines.
- Micro beads – no longer legal to use in cosmetics as from January 2018 in the UK (also banned in Europe and North America). Big problem due to size of less than 1 mm diameter is that they cannot be removed by water treatment making it all the way into the oceans to the detriment of sea life and ecosystems.

Atmospheric pollution

- Acid rain – the combination of nitrogen oxide and sulphur dioxide combine and fall as acid rain which when carried by prevailing winds fall raising acidity levels in lakes killing fish and marine life and also raising acidity in the soil destroying plant based life.
- Carbon monoxide contributes extensively to greenhouse gasses and raising the global temperature.
- Carbon dioxide emissions from vehicles using fossil fuels is known to lower air quality affecting the health of the young, elderly and those with chronic breathing issues.
- Particulates – when released into the atmosphere they can cause 'global dimming' restricting light to the surface of the earth.
- Lower air quality – impact on human health particularly the young, old, people with asthma, heart and lung problems. Net impact on increase health care costs and mortality rates. Affected groups are told to stay indoors on days identified as ones with poor air quality.

