

Design & Technology

A-Level

Health and safety laws, regulations and impacts on the designing and making process

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
- Use a cross in the box to mark you 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. What does this warning symbol mean?



- A** Hazardous product
- B** Corrosive
- C** Dangerous for the environment

☐☐☐

Q2. What does this warning symbol mean?



- A** Corrosive
- B** Flammable
- C** Toxic

☐☐☐

Q3. Which symbol indicates a chemical that should be used in a fume cupboard?

A

☐

B

☐

C

☐

Q4. Which of these is NOT an example of personal protective equipment (PPE)?

A Goggles

☐

B Clamps

☐

C Chainmail gloves

☐

Q5. Which of these is required by law to ensure safe use of tools, equipment and materials?

- A** Risk assessment ☐
- B** COSHH report ☐
- C** PAT testing ☐

Q6. Which one of the following statements is true?

- A** Safety guards on workshop machinery are not needed when an adult is present. ☐
- B** Quality Control only occurs when the production process is complete. ☐
- C** COSHH regulations control the level of exposure of workers to softwood dust. ☐

Q7. Which one of the following statements is false?

- A** Manufacturers must follow COSHH regulations ☐
- B** COSHH stands for Control of substances Harmful to health ☐
- C** Safety sign regulations require employees to display an appropriate safety sign wherever a significant risk cannot be avoided or reduced ☐

Q8. Quality Control only occurs when the production process is complete.



8a. State the meaning of this symbol. **(1 mark)**

8b. State 1 safety precaution to be taken when spraying the varnish **(1 mark)**

Q8. What does the health and safety work act do (1974)? **(3 marks)**

Q10. Before any manufacturing processes are carried out a risk assessment must be completed.

Outline the five steps involved in a risk assessment. **(5 marks)**

1.

2.

3.





4.

5.

Q11. Fill in the missing boxes one has been done for you.

(4 marks)

Geometric shape	Meaning	Example of use
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 Square	Fire equipment	Fire extinguisher
 Square	Safe condition	<hr/> <hr/>
	Prohibition	No smoking
 Circle	Mandatory action	<hr/> <hr/>
 Equilateral triangle with radiused outer corners		Electricity

Answers

Q1. A

Q2. C

Q3. A

Q4. B

Q5. A

Q6. C

Q7. B

Q8a.

Flammable / Inflammable

Do not accept fire hazard

8b.

Wear face mask/respirator/dust mask; use extraction; spray in ventilated area; do not spray near naked flame; spray away from body/eyes

Q9.

- Under this Act of parliament, employers are legally required to do all that is reasonably practicable to ensure the health, safety and welfare at work of employees
- This also applies to the health and safety of non-employees such as students and visitors to the school
- The following regulations are procedures to safeguard the risk of injury to people

Q10.

Any five of the following points:






1. Identify the hazards / risks (1)
2. Identify the people at risk / who might be harmed. (1)
3. Evaluate the risks / assess the seriousness of it / likelihood of it happening. (1)
4. Decide / implement / check appropriate control measures / an example of a control measure Eg. guards, PPE, signage, training maintenance, etc. (1)
5. Record /store the risk assessment (1)
6. Set a review date / regularly review the risk assessment. (1)

Note that the order of the points should not be considered.

(1 x 5)

Q11.

Geometric shape	Meaning	Example of use
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 <p>Square</p>	Fire equipment	Fire extinguisher
 <p>Square</p>	Safe condition	Emergency exit
 <p>Circle with diagonal bar</p>	Prohibition	No smoking
 <p>Circle</p>	Mandatory action	Wear eye protection
 <p>Equilateral triangle with radiused outer corners</p>	Warning	Electricity