# **Design & Technology**

# 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
- 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. What does this warning symbol mean?



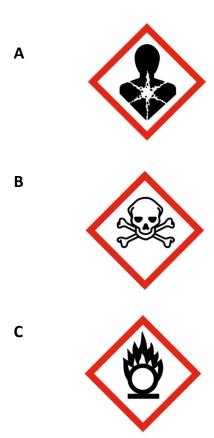
- A Hazardous product
- **B** Corrosive
- **C** Dangerous for the environment

# 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?



**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

<b>8</b> . What d	does the health and safety work act do (1974)? <b>(3 m</b> a	arks)
nust be co	any manufacturing processes are carried out a risk a empleted. E five steps involved in a risk assessment. (5 marks)	ssessment
2.		
3.		
).		
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10. If two control measures, other than personal protective equipment (PPE sed during the pouring of a pewter sand casting in the school workshop (2 arks)
11. Explain the safe work practices necessary to protect workers when using olvent adhesives (6 marks)

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## **Answers**

- Q1. A
- Q2. C
- Q3. A
- Q4. B
- Q5. A
- Q6. C
- Q7. B

# Q8.

- 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

# Q9.

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

# Q10.

- Use of localised ventilation extract/hood. (1)
- Use of screens to separate user from molten metal. (1)
- Sand floor to stop rapid spread of pewter if aluminium spilled. (1)
- Specialist tools to lift crucible and pour pewter. (1)

# Q11.

- Users should be aware of COSHH guidance that governs their use, storage and disposal. (1)
- Users must store the adhesive in a COSHH cupboard when not in use. (1)
- The adhesive may be irritant to skin so correct PPE should be worn e.g. gloves
- The adhesive may be a liquid so correct PPE such as goggles should be worn. (1)
- Vapours that can be released can be highly flammable so no naked flames should be present when using the adhesive. (1)
- Users must ensure that instructions have been read and guidance is followed. (1)
- Vapours can be released therefore the adhesive should be used in well-ventilated areas. (1)
- Users must identify and understand the COSHH symbol present which will both govern its use and disposal. (1)