

City & Guilds Level 2 Certificate in Engineering – Maintenance Technology

Congratulations on choosing the City & Guilds Maintenance Technology course.

This Level 2 (Technical) Certificate in Engineering provides you with knowledge and practical skills for the broad engineering sector and is ideal if you're a school leaver with some engineering knowledge and experience or have a passion to advance your career. It aims to focus on developing your knowledge and practical skills in the maintenance, manufacturing and technology industry.

You will develop your understanding and practical experience of specific engineering technologies.

Typical progression in a wide range of engineering roles include:

- Engineering operative
- Engineering maintenance technician
- Mechanical engineering technician
- Sheet metal worker
- Toolmaker/Machine setter operator

Equipment List and Reading Materials:

- Scientific calculator such as Casio FX-85GT
- Mechanical Engineering: Level 2
- ISBN: 075065406
- PPE:
 - Steel toe cap boots
 - Fire retardant overalls
 - Safety glasses

Summer Project Work Task

Using Word, answer these questions after watching the video below:

[How to Build a Supercar "MP4-12C" - YouTube](#)

1. What is the name of the car McLaren are building?
2. How long did the car take to develop?
3. What temperature is the building held at?
4. What part of the building is the car built from start to finish?
5. How much did McLaren invest in the car?
6. What material is used in the initial design modelling phase?
7. What lightweight material is used in the car's construction?
8. How long does it take to produce the "tub"?
9. What is the jig used for?
10. How many points of measurements does the robot arm take?
11. What does an anti-static gun do?
12. What do the electrics come in?
13. How long is the electric cable that goes into the car?
14. How long does it take for the car to come to a complete stop?

15. What material are the pistons made from?
16. How long are the pistons “cooked” for?
17. What is the material used for the wedges in the sound testing?
18. What are the approximate exhaust temperatures?
19. How many miles per month can the car accumulate during testing?
20. How many months did it take to build the new facility?
21. How many jobs will the company create when increasing production?
22. How much does the car industry account for in UK exports?

Deadline Date: 30/8/24	How do I submit my completed work: via email oliver.jeffries@easterneducationgroup.ac.uk
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Useful Websites:

[What is Engineering? \(Definition and Types\) - TWI \(twi-global.com\)](#)

[How to Use a Metal Lathe – A Beginner’s Guide - Lathe Matters](#)

[How to: A Beginner's Guide To Welding \(industrialmetalsupply.com\)](#)

[Engineering in maths \(stem.org.uk\)](#)

[What Is Maintenance Engineering? – The Maintenance Engineer](#)