

Purpose statement

The following purpose is for the **Level 2 Technical Award in Vehicle Technology (603/0310/4)**. This qualification is suitable for you if aged 14 – 16.

Area	Description
OVERVIEW	
Who is this qualification for?	<p>This Level 2 Technical Award in Vehicle Technology allows you to explore the whole automotive industry giving you an introduction not just to the automotive manufacturing sector but the retail motor industry as well.</p> <p>With a practical hands on approach and the application of other GCSEs subjects such as Maths, Physics, Science or Art you will learn how vehicles are designed and how their systems and components work, whether they are cars, vans, motorcycles, trucks or all-terrain vehicles (ATVs).</p>
What will the student study as part of this qualification?	<p>You will explore what are the main factors to consider when designing and manufacturing a vehicle and how to choose the right materials, as well as their properties.</p> <p>Main principles of Maths, Science and Physics will be applied to understand how the main systems and components of different vehicles operate.</p> <p>There is also a practical section during which you will learn how to use the basic measurement and fabrication tools available in any type of engineering/manufacturing workshop.</p> <p>This qualification has two mandatory areas:</p> <ul style="list-style-type: none"> • Underpinning Principles in Vehicle Technology • Vehicle Technology Systems
What knowledge and skills will the student develop as part of this qualification and how might these be of use and value in further studies?	<p>This qualification develops the following knowledge, understanding and skills:</p> <ul style="list-style-type: none"> • Vehicle design factors, which will be useful if you decide to continue learning into an engineering and manufacturing discipline in automotive or aerospace • what materials are used in vehicle manufacturing, providing an understanding of how their properties have an impact on the manufacturing of any type of components and the scientific principles behind them

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- different power units, chassis, transmissions and drive train layout aimed at giving you the technology and engineering basics of different vehicle systems
 - operating principles of electric motors, four stroke cycle, rotary phases and two stroke cycle aimed at initiating you on asking yourself what makes vehicles and systems work and the importance of scientific and technological principles
 - how to use measurement and workshop tools for fabrication and repair, providing you the key hand skills required to work in any engineering workshop
 - understanding of mathematical and scientific principles of vehicle power, braking, suspension and steering systems, which will enable you to progress smoothly into further maths and science learning
 - vehicle electrical principles and components and the physics behind their operation that are also transferable to other engineering areas.

Your understanding and skills can be developed further through progression to a range of qualifications, such as A Levels or Technical Qualifications in engineering and automotive.

For example:

- City & Guilds Level 2 Technical Certificate in Automotive.
- City & Guilds Level 3 Advanced Technical Certificate in the Automotive Industry
- City & Guilds Level 3 Advanced Technical Extended Diploma in the Automotive Industry

You would also find the understanding and skills useful to progress into an Apprenticeship in a variety of occupations in the automotive engineering, retail motor industry or engineering sectors.

For example, you could undertake an Apprenticeship to become a motor vehicle service and maintenance technician.

Which subjects will complement this course?

GCSEs in Maths, Physics, Science, Art and Design will complement this qualification.

FURTHER INFORMATION

Please refer to the Qualification Handbook, available on the City & Guilds website, for more information.
