

# **Goldwyn 6<sup>th</sup> Form – Motor Vehicle Subject Statement and Long Term Plan**



## **Motor Vehicle - Statement of Intent**

Vocational courses can be a highly motivating way of engaging students who have a preference for 'hands on' learning, enabling them to develop work-ready, practical skills and improving their confidence and interest. Goldwyn Motor Vehicle Department offers qualifications accredited by the Institute for the Motor Vehicle Industry (IMI), which give students the opportunity to begin to learn a trade, preparing them for further training and employment, as well as developing their life skills.

IMI qualifications are developed with input from employers, professional bodies and training providers to make sure that the range of subjects and topics covered are current and suitable for the automotive maintenance and accident repair industry. There are no formal entry requirements but students would benefit from having prior knowledge or experience and an interest in working in areas of the automotive trade such as Accident Repair, Light and Heavy Vehicle, Motorcycle, Land-based Engineering including agricultural, construction and plant-based machinery or Leisure Craft.

### **Implementation**

The Entry Level 3 and Level 1 qualifications are available as an Award, Certificate or Diploma. Through a mixture of practical and theory sessions, students are taught the basic technical knowledge, understanding and practical skills required by an automotive maintenance and repair technician.

Each qualification has Mandatory Units covering Health & Safety and Tools, Equipment & Consumables in the motor vehicle work place. Further units cover topics including engine and cooling components and operation, spark ignition, exhausts, steering, suspension, wheels and tyres, braking systems, electrics and transmission. The Entry Level 3 qualification also includes units specific to body repair.

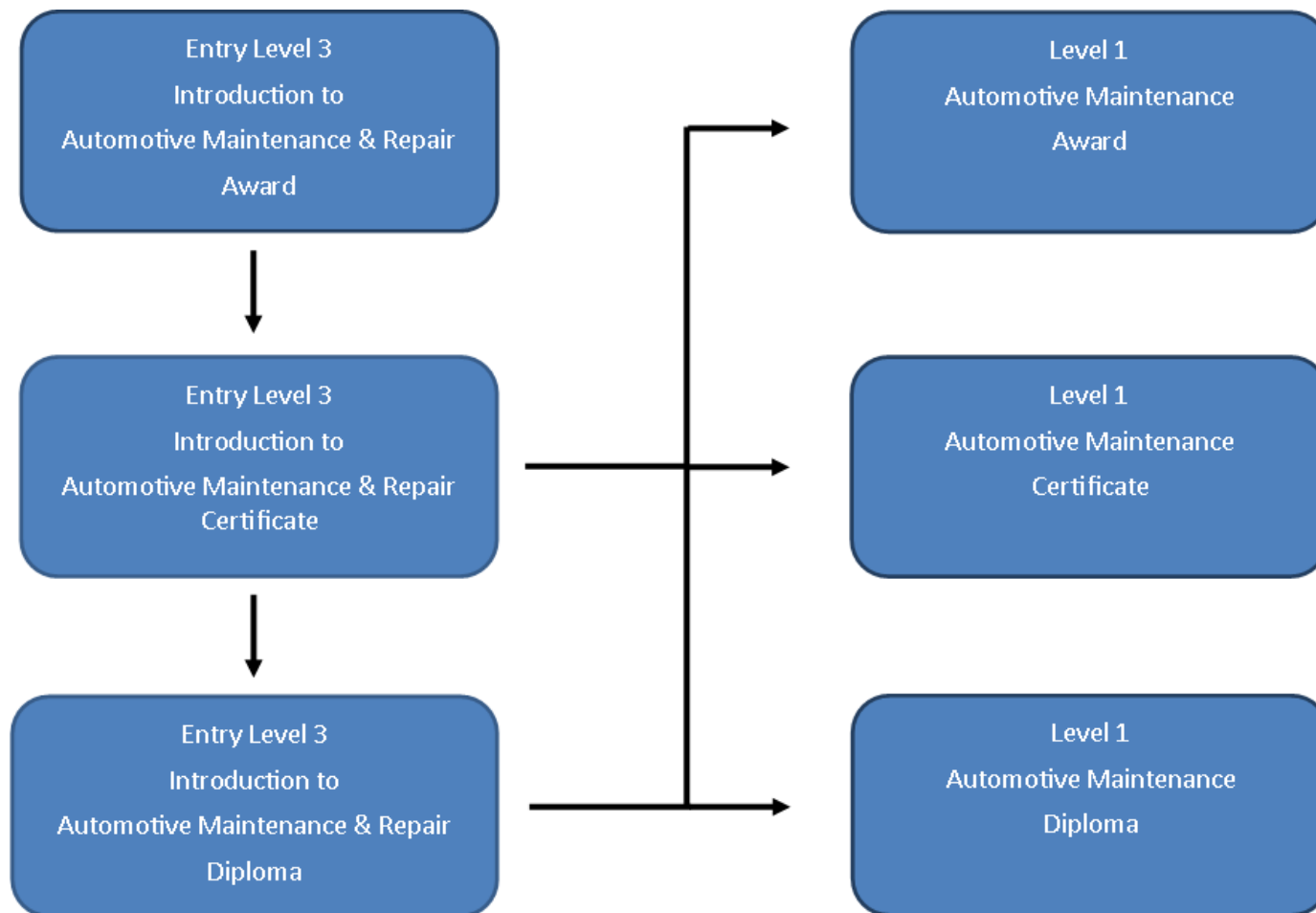
Both qualifications are assessed through a portfolio of evidence, practical assessments and an online test, with the number of units depending on which qualification the student is studying.

### **Impact**

Students will have:

- achieved relevant qualifications and developed the knowledge and skills they need for further training, an apprenticeship or employment.
- developed their confidence in learning and their motivation to achieve.
- a better understanding of the value of literacy and numeracy in the work place and be more able to apply skills to in vocational related activities.
- developed their self-regulation, communication and social skills so that they are better prepared for working life.

Progression



### IMI Entry Level 3 Diploma in Automotive Maintenance & Repair: Long Term Plan

Term	1	2	3	4	5	6
Entry Level 3	<p><b>Unit E3AMR01 - Introduction to Health &amp; Safety in the Workplace</b></p> <p>Safety signs, Personal Protective Equipment (PPE), emergency evacuation procedures, name risks and hazards in the workshop, safe working practice.</p> <p><b>Unit E3AMR02 - Introduction to Common Tools &amp; Equipment for Vehicle Maintenance &amp; Repair</b></p> <p>Names and uses of hand tools and equipment; routine safety checks of tools and identify faults.</p> <p><b>Unit E3AMR12 - Introduction to Braking System Components &amp; Maintenance</b></p> <p>Name brake parts and how they work, routine checks; remove and replace brake pads, identify faults.</p>	<p><b>Unit E3AMR10 - Introduction to Steering System Components &amp; Maintenance</b></p> <p>Name parts of a steering system; how the steering of a car works; routine checks for alignment.</p> <p><b>Unit E3AMR11 - Introduction to Suspension System Components &amp; Maintenance</b></p> <p>Name parts and how they work; inspecting and identifying fault; checking for rust and leaks damage.</p> <p><b>Unit E3AMR13 - Introduction to Wheel &amp; Tyre Construction &amp; Maintenance</b></p> <p>Different types of wheels and tyres and how they are made; checking tread and pressure; identifying faults.</p>	<p><b>Unit E3AMR03 - Introduction to Engine Components &amp; Operation</b></p> <p>Name parts (starter motor, alternator, fly wheel, sump, rocker cover) and what they do; inspect faults; remove and refit; how a combustion engine works (4 stroke cycle).</p> <p><b>Unit E3AMR04 - Introduction to Lubrication System Components &amp; Maintenance</b></p> <p>Name parts and what they do; inspect and identify faults; lubrication checks including topping up oil and leaks.</p> <p><b>Unit E3AMR17 - Introduction to Minor Dent Removal</b></p> <p>Tools and technology for repair of minor dents; raise and reshape dents in panels.</p>	<p><b>Unit E3AMR03 - Introduction to Engine Components &amp; Operation</b></p> <p>(Continuation from Term 3).</p> <p><b>Unit E3AMR04 - Introduction to Lubrication System Components &amp; Maintenance</b></p> <p>(Continuation from Term 3).</p> <p><b>Unit E3AMR16 - Introduction to Body Fitting (MET)</b></p> <p>Remove and replace door trim, name parts, tools and technology.</p> <p><b>Unit E3AMR18 - Introduction to Joining Motor Vehicle Materials</b></p> <p>Tools, materials and techniques for joining metal together e.g. welding, riveting, self-adhesive and screws.</p>	<p><b>Unit E3AMR06 - Introduction to Spark Ignition System Components &amp; Maintenance</b></p> <p>Name parts of a spark ignition system; check, remove and replace spark plugs and coil.</p> <p><b>Unit E3AMR09 - Introduction to Exhaust System Components &amp; Maintenance</b></p> <p>Name parts of an exhaust system; check for leaks; remove and replace back box.</p>	<p><b>Unit E3AMR05 - Introduction to Engine Cooling System Components &amp; Maintenance</b></p> <p>Name parts of cooling system; check coolant levels and top up; check anti-freeze and adjust; check for leaks.</p>

Term	1	2	3	4	5	6
Entry Level 3			<p data-bbox="913 260 1176 384"><b>Unit E3AMR19 - Introduction to Mixing, Applying &amp; Shaping Body Filler</b></p> <p data-bbox="913 400 1151 525">Tools and equipment for body filling; filling and shaping dents ready for primer.</p>			

## IMI Level 1 Diploma in Automotive Maintenance: Long Term Plan

Term	1	2	3	4	5	6
Level 1	<p><b>Unit L1AM01 - Health &amp; Safety in the Workplace</b> Health and safety information, equipment and notices, learn about safe manual handling, fire prevention, evacuation and types of extinguisher.</p> <p><b>Unit L1AM02 - Tools, Equipment &amp; Consumable Materials for Vehicle Maintenance</b> Names and uses for tools, equipment and consumables; correct selection, use and checking of tools and equipment.</p>	<p><b>Unit L1AM11 - Suspension System Components &amp; Maintenance</b> Name parts, their purpose and how they work; remove, inspect, test and replace components; use of correct technical data, tools and equipment.</p> <p><b>Unit L1AM10 - Steering System Components &amp; Maintenance</b> Name parts, their purpose and how they work; remove, inspect, test and replace components; use of correct technical data, tools and equipment; adjusting wheel alignment.</p>	<p><b>Unit L1AM04 - Lubrication System Components &amp; Maintenance</b> Name parts, their purpose and how they work; use of correct technical data, tools and equipment; changing engine oil and filter, replacing gasket or oil seal, checking engine for oil leaks.</p> <p><b>Unit L1AM05 - Engine Cooling System Components &amp; Maintenance</b> Name parts of liquid and air-cooling systems, their purpose and how they work; use of correct technical data, tools and equipment; removing and refitting a radiator, checking coolant pump drive belts, pressure testing cooling systems.</p>	<p><b>Unit L1AM03 - Engine Operation &amp; Components</b> Name parts of 2 and 4 stroke engines, their purpose and how they work; remove, inspect, test and replace an engine cylinder head; use of correct technical data, tools and equipment.</p> <p><b>Unit L1AM14 - Vehicle Transmission System Components &amp; Maintenance</b> Name parts used in gearbox and driveline systems, their purpose and how they work; check remove and replace components; use of correct technical data, tools and equipment; removing and re-fitting clutch assembly.</p>	<p><b>Unit L1AM09 - Exhaust System Components &amp; Maintenance</b> Name parts, their purpose and how they work; check remove and replace an exhaust system and components; use of correct technical data, tools and equipment; checking an engine's exhaust emissions.</p> <p><b>Unit L1AM13 - Wheel &amp; Tyre Construction &amp; Maintenance</b> Name types of wheels and tyres and their construction, markings and terminology; how to remove, inspect and replace; use of correct technical data, tools and equipment; balancing a wheel and tyre.</p>	<p><b>Unit L1AM15 - Vehicle Electrical Circuits &amp; Components</b> Name parts used, their purpose and how they work; construct and test a simple lighting circuit; use of correct technical data, tools and equipment.</p>

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Level 1	<p><b>Unit L1AM12 - Braking System Components &amp; Maintenance</b></p> <p>Name parts, their purpose and how they work; remove, inspect, test and replace brake pads and brake shoes; remove air from hydraulic braking system; use of correct technical data, tools and equipment.</p>	<p><b>Unit L1AM06 - Spark Ignition System Components &amp; Maintenance</b></p> <p>Name parts, their purpose and how they work; use of correct technical data, tools and equipment; removing and replacing spark plugs, check compression pressure, and checking resistance of an ignition coil.</p>				