



National 4  
Course  
Specification



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# National 4 Automotive Skills: Skills for Work Course Specification

**Valid from August 2013**

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Please refer to the note of changes at the end of this Course Specification for details of changes from previous version (where applicable).

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## History of changes to Course Specification

Version	Description	Date
02	2013 - Course re-coded as part of CfE development programme but no change to Course and Unit content.	August 2013



## National Course Specification

### National 4 Automotive Skills

**COURSE CODE** C271 74

#### COURSE STRUCTURE

This Course has four mandatory Units.

The mandatory Units are:

F8MW 10	<i>Automotive Skills: The Garage</i>	1 credit	(40 hours)
F8MY 10	<i>Automotive Skills: The Technician</i>	1 credit	(40 hours)
F8MX 10	<i>Automotive Skills: The Car</i>	1 credit	(40 hours)
F8N0 10	<i>Automotive Skills: The Vehicle Modification Project</i>	1 credit	(40 hours)

To achieve the Course award the candidate must successfully achieve all the Units which make up the Course.

#### RECOMMENDED ENTRY

Entry is at the discretion of the centre.

#### PROGRESSION

This Course or its Units may provide progression to:

- ◆ Scottish Vocational Qualifications (SVQs) and Modern Apprenticeships in Automotive areas
- ◆ further education
- ◆ training/employment

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#### Administrative Information

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## **National Course Specification: (cont)**

**COURSE** National 4 Automotive Skills

### **CREDIT VALUE**

The National 4 Course in Automotive Skills is allocated 24 SCQF credit points at SCQF level 4\*.

*\*SCQF points are used to allocate credit to qualifications in the Scottish Credit and Qualifications Framework (SCQF). Each qualification is allocated a number of SCQF credit points at an SCQF level. There are 12 SCQF levels, ranging from Access 1 to Doctorates.*

### **CORE SKILLS**

Opportunities to develop aspects of Core Skills are highlighted in the Support Notes of the Unit Specifications.

There is no automatic certification of Core Skills or Core Skill components in the Units.

### **LINKS TO NATIONAL OCCUPATIONAL STANDARDS**

National Occupational Standards (NOS) are developed by the key employment sectors of the United Kingdom. These standards set the competences required for job roles within a particular employment sector.

The National 4 Course Automotive Skills has been designed to link broadly to National Occupational Standards. The standards required of first-year apprentices in the Automotive Industry are however significantly more onerous than those in this Course.

Aspects of the NOS are reflected in areas such as:

- ◆ contributing to good workplace housekeeping
- ◆ awareness of Health and Safety procedures
- ◆ developing basic practical skills
- ◆ removal and replacement of vehicle components
- ◆ understanding how components work

## **National Course Specification: Course details (cont)**

**COURSE**      National 4 Automotive Skills

### **RATIONALE FOR SKILLS FOR WORK COURSES**

Skills for Work Courses are designed to help candidates to develop:

- ◆ skills and knowledge in a broad vocational area
- ◆ Core Skills
- ◆ an understanding of the workplace
- ◆ positive attitudes to learning
- ◆ skills and attitudes for employability

A key feature of these Courses is the emphasis on *experiential learning*. This means learning through practical experience and learning by reflecting on experience.

#### **Learning through practical experience**

- ◆ Teaching/learning programmes should include some or all of the following:
  - learning in real or simulated workplace settings
  - learning through role play activities in vocational contexts
  - carrying out case study work
  - planning and carrying out practical tasks and assignments

#### **Learning through reflecting at all stages of the experience**

- ◆ Teaching/learning programmes should include some or all of the following:
  - preparing and planning for the experience
  - taking stock throughout the experience — reviewing and adapting as necessary
  - reflecting after the activity has been completed — evaluating and identifying learning points

## National Course Specification: Course details (cont)

### COURSE National 4 Automotive Skills

The Skills for Work Courses are also designed to provide candidates with opportunities for developing *Core Skills* and enhancing skills and attitudes for *employability*.

#### Core Skills

The **five** Core Skills are:

- ◆ *Communication*
- ◆ *Numeracy*
- ◆ *Information and Communication Technology*
- ◆ *Problem Solving*
- ◆ *Working with Others*

#### Employability

The skills and attitudes for employability, including self-employment, are outlined below:

- ◆ *generic skills/attitudes valued by employers*
  - understanding of the workplace and the employee's responsibilities,
  - for example time-keeping, appearance, customer care
  - self-evaluation skills
  - positive attitude to learning
  - flexible approaches to solving problems
  - adaptability and positive attitude to change
  - confidence to set goals, reflect and learn from experience
- ◆ *specific vocational skills/knowledge*
  - Course Specifications highlight the links to National Occupational Standards in the vocational area and identify progression opportunities

Opportunities for developing these skills and attitudes are highlighted in each of the Course and Unit Specifications. These opportunities include giving young people direct access to workplace experiences or, through partnership arrangements, providing different learning environments and experiences which simulate aspects of the workplace. These experiences might include visits, visiting speakers, role play and other practical activities.

*A Curriculum for Excellence* (Scottish Executive 2004) identifies aspirations for every young person. These are that they should become:

- ◆ successful learners
- ◆ confident individuals
- ◆ responsible citizens
- ◆ effective contributors

The learning environments, the focus on experiential learning and the opportunities to develop employability and Core Skills in these Courses contribute to meeting these aspirations.

## National Course Specification: Course details (cont)

### COURSE National 4 Automotive Skills

#### RATIONALE FOR NATIONAL 4 AUTOMOTIVE SKILLS COURSE

The National 4 Automotive Skills Course has been designed to provide an introduction to the automotive industry and a progression route into further education or for moving directly into training or employment within the automotive industry. The overall purpose of the Course is to ensure that candidates develop practical skills, knowledge and understanding and employability skills needed within the automotive industry as well as developing generic transferable employability skills.

The automotive industry includes the following:

- ◆ Light vehicle maintenance and repair
- ◆ Heavy vehicle maintenance and repair
- ◆ Heavy vehicle trailer maintenance and repair
- ◆ Bus and coach maintenance and repair
- ◆ Motorcycle maintenance and repair
- ◆ Lift truck maintenance and repair
- ◆ Vehicle fitting
- ◆ Auto electrical
- ◆ Accident Repair — Body
- ◆ Accident Repair — Paint Operations
- ◆ Body Building
- ◆ Parts Distribution
- ◆ Roadside Assistance

The primary target group for this Course is school candidates in S3 and above. It is anticipated that, for this group of candidates, the Course will rely on and build on existing partnerships between schools, further education colleges, training providers and employers. This may be particularly pertinent in the case of the Automotive Skills Course due to the specialist expertise and facilities available in further education colleges and with training providers. Nevertheless, the Automotive Skills Course is designed at a level and scope such that it can be delivered in schools, if the school has suitable facilities and teaching expertise. A partnership approach however will enable the Course to be delivered in a variety of appropriate learning environments enhancing the learning experience.

The Course is also suitable for adult candidates who are seeking to enhance their employability skills profile and develop introductory vocational skills relevant to the automotive industry.

The general aims of the National 4 Automotive Skills Course are to:

- ◆ widen participation in vocationally-related learning for school candidates from S3 upwards
- ◆ enable candidates to experience vocationally-related learning
- ◆ provide candidates with a broad introduction to the automotive industry
- ◆ encourage candidates to develop a good work ethic, including time-keeping, a positive attitude and other relevant employability skills
- ◆ provide opportunities to develop a range of Core Skills in a vocational context
- ◆ encourage candidates to take responsibility for their own learning and development
- ◆ provide a range of learning, teaching and assessment styles to motivate candidates to achieve their full potential
- ◆ facilitate progression to further education and/or training

## National Course Specification: Course details (cont)

### COURSE National 4 Automotive Skills

- ◆ encourage candidates to plan their work and review their progress
- ◆ encourage candidates to develop a positive attitude to environmental issues

In particular, the aims of the National 4 Automotive Skills Course are to:

- ◆ encourage candidates to consider a career in the automotive industry
- ◆ develop an awareness of the range of career opportunities within the automotive industry
- ◆ develop an understanding of good working practices
- ◆ develop an awareness of relevant health and safety issues
- ◆ develop a positive and responsible attitude to work
- ◆ encourage candidates to apply their knowledge and understanding of automotive by using the skills of evaluation and problem-solving in a vocational context
- ◆ develop awareness of candidates' individual strengths and weaknesses in relation to the requirements of automotive, and to reflect on how this affects their employability
- ◆ build candidates' confidence
- ◆ prepare candidates for further learning opportunities, study and training for employment in the automotive and related industries

The National 4 Automotive Skills Course has been designed with National Occupational Standards in mind. There is a link, though not directly, to these Standards. The standards required of first-year apprentices in the automotive industry are, and should remain, significantly more onerous than those for this Course, which is at an introductory level.

This Course fills an identified need in the automotive sector for an introductory Course for school candidates which supports progression into appropriate further education or work based learning. The Course provides the basis for candidates to gain an insight into the automotive industry, the occupations within it and the skills and knowledge required. Candidates studying this Course may be aiming to progress into an apprenticeship in the automotive industry or undertake vocational courses at further education colleges.

The National 4 Course should provide a variety of progression routes.

- ◆ Scottish Vocational Qualifications (SVQs) and Modern Apprenticeships in automotive areas
- ◆ further education
- ◆ training/employment



## National Course Specification: Course details (cont)

**COURSE** National 4 Automotive Skills

### COURSE CONTENT

#### Summary of Course content

The Course provides a broad introduction to the automotive industry and facilitates the development of basic vocational skills, knowledge and understanding. Practical experiences of carrying out basic vehicle checks are included as well as the specific skills involved in removal and replacement of components and mechanisms.

Central to the content are the generic employability skills valued by employers in the automotive sector. These skills are developed in each of the four Units and will help prepare candidates for the workplace.

#### Summary of Unit content

**Automotive Skills: The Garage (SCQF level 4) (1 credit)**

This Unit introduces candidates to the structure and organisation of the retail automotive industry and the range of job roles and responsibilities within it. Candidates will use a range of research sources and activities to help develop their knowledge and understanding of the automotive industry, the businesses within it, and the diversity of job roles it offers. The Unit also provides a basic introduction to some of the health and safety legislation applicable to vehicle service and repair workshops.

**Automotive Skills: The Technician (SCQF level 4) (1 credit)**

This Unit has a practical focus and introduces candidates to some of the tools and techniques used by technicians in the automotive industry.

Candidates will use a range of common hand tools as well as more specialised tools and equipment such as the torque wrench and trolley jack. Candidates will also learn the names, functions and serviceability of automotive components while engaging in practical activities and gain basic knowledge of working safely in an automotive engineering environment.

**Automotive Skills: The Car (SCQF level 4) (1 credit)**

This Unit introduces candidates to basic safety checks, wheel changing and valeting as carried out by technicians in the automotive industry. The candidate will use a range of common hand tools, as well as more specialised tools and equipment. To enrich the candidate/s understanding and range of associated skills they will carry out engineering processes such as removing and refitting vehicle service items.

**Automotive Skills: The Vehicle Modification Project (SCQF level 4) (1 credit)**

This Unit comprises a practical project and is designed to be completed after the Units *Automotive Skills: The Technician* and *Automotive Skills: The Car*, consolidating the previous practical skills developed. Candidates select a modification project to carry out on a vehicle enabling them to put into practice and further develop some of the basic handskills and problem solving abilities that an Automotive Technician requires.

## National Course Specification: Course details (cont)

### **COURSE** National 4 Automotive Skills

### **ASSESSMENT**

To achieve the Course award the candidate must successfully achieve all the Units which make up the Course.

#### **Assessment objectives**

Assessment across the Units in this Course will primarily test practical skills but will also address the wider knowledge and understanding associated with working in automotive job roles. In particular, assessment will focus on:

- ◆ knowledge and skills required for working in an automotive context
- ◆ practical vocational skills
- ◆ knowledge and understanding of the use of tools and equipment in the automotive sector
- ◆ knowledge and understanding of systems and components as applied to vehicles
- ◆ awareness of health and safety legislation
- ◆ skills for employment in an automotive context
- ◆ generic employability skills

#### **Unit assessment**

##### **All Units**

In all of the Units, which focus on the development of specific automotive skills, assessment follows a similar pattern involving a range of practical activities which will produce evidence for all the Outcomes. The evidence will be confirmed by the use of an assessor checklist, which will cover:

- ◆ interpretation of drawings and/or specifications
- ◆ following appropriate procedures
- ◆ appropriate use of tools, materials and equipment
- ◆ successful involvement in the completion of a task
- ◆ quality checking of own work by the candidate
- ◆ compliance with health and safety aspects of working in a workshop environment

The assessment of employability skills is integrated in all of the Units.

The candidate will undertake four reviews throughout the Course. These will enable the candidate to record the development of their employability skills in the context of the different skill areas contained within each Unit.

Further details about Unit assessment for this Course can be found in the Unit Specifications and the National Assessment Bank (NAB) materials.

## **National Course Specification: Course details (cont)**

**COURSE**      National 4 Automotive Skills

### **QUALITY ASSURANCE**

The Units of all National Courses are subject to internal verification and may also be chosen for external verification by SQA. This is to ensure that national standards are being applied across all subjects.

To assist centres, Senior Verifier reports are published on SQA's website **[www.sqa.org.uk](http://www.sqa.org.uk)**

## National Course Specification: Course details (cont)

**COURSE** National 4 Automotive Skills

### **GUIDANCE ON LEARNING/TEACHING AND ASSESSMENT APPROACHES FOR THIS COURSE**

#### **Suggested sequence of delivery**

The Course has four mandatory Units which offer a broad range of different automotive experiences. While the sequence of delivery is at the discretion of the individual centre it is recommended that Outcome 2 of *Automotive Skills: The Garage* is delivered at the start of the Course as health and safety forms an essential part of all aspects of the automotive industry.

Other Outcomes within *Automotive Skills: The Garage* should be integrated with *Automotive Skills: The Technician* and *Automotive Skills: The Car*. Delivery in this way will enhance the candidate's understanding of the content of this Unit by placing it in a practical context.

The Unit *Automotive Skills: The Vehicle Modification Project* should be the culmination of the Course by which time candidates will have gained sufficient experience to apply the appropriate skills and knowledge required to undertake this Unit.

#### **Learning and Teaching**

Centres should ensure that a well planned induction to the Course is delivered, which will enable candidates to understand fully what is required and the approaches to be adopted. It is important that employability skills, both generic and specific to the automotive industry, are stressed at this time.

Candidates should have the opportunity to develop relevant vocational skills, as well as a variety of employability skills, in an automotive workshop environment. Some of these skills are generic skills required in the wider workplace, while others are specific employability skills required for the automotive industry. It will be important to ensure that candidates are provided with advice and guidance on what is expected of them when they are working in the automotive industry. Candidates must be given clear information, advice and guidance with regards to appearance, attitude, behaviour, customer care and team working.

General vocational skills, such as selecting and maintaining tools and equipment, are integrated with practical automotive service and repair activities within the Units. Brief lessons on workshop protocol and housekeeping should also be included.

Due to the practical nature of the Course, each part of learning/teaching should incorporate both theory and practice, to facilitate learning. Candidates will therefore understand the relevance of the knowledge and understanding more easily as they experience the practical application. The learning and teaching should arise naturally throughout the practical activities.

Short lessons on specific aspects of industrial practice and demonstrations on the correct use of tools and equipment will prove invaluable at intervals throughout the learning experience. Practising the skills demonstrated will help the candidate gain confidence before progressing to the specific work tasks. Given the practical nature of learning/teaching and assessment, centres should ensure that teaching blocks are of sufficient time to allow a meaningful experience for candidates.

## National Course Specification: Course details (cont)

### COURSE National 4 Automotive Skills

Reflecting on practical experiences and learning from them is an approach that is embedded in the Course. Throughout the learning experiences, the emphasis should be on helping candidates to develop an awareness of the employability skills and attitudes needed for the automotive industry, for example, good time-keeping and attendance, taking instructions, and a positive attitude to learning. Opportunities to develop these skills and attitudes arise naturally in the work of the Course. Candidates should be aware that these generic skills are just as important as the practical automotive skills they are developing.

For example, it is important that candidates have an awareness of the value of the vehicles they are working on and their importance to the customer. Workshop activities should be carried out to effective schedules; candidates will have opportunities to demonstrate good time-keeping in the context of these schedules. Candidates will have to co-operate with others regarding shared workspace, tools and equipment. They will have to co-operate and communicate regarding the transfer of tools, equipment and materials safely around and across the workshop. Candidates will be encouraged to develop a positive attitude to waste minimisation and environmental issues regarding the use of materials.

Health and safety is integral to all practical tasks and should be emphasised throughout the delivery of each Unit.

The work of the Course will increase awareness that health and safety issues are important in the world of work generally and in the automotive sector in particular.

In carrying out automotive activities, candidates will learn that there are correct and incorrect ways to use tools and equipment. Teachers/lecturers will have ample opportunity to demonstrate good practice and correct procedures to candidates, who will learn the importance to self and others of following instructions. Such positive experiences will foster a positive attitude to learning.

It is also important that candidates get support and feedback from a teacher/lecturer on their self evaluation and progress throughout. Feedback should highlight aspects where candidates did well and areas that require to be improved. Learning and teaching approaches should impart enthusiasm and help to inform candidates of realistic prospects in the automotive sector or in industry generally. They should become aware of steps to employment or further training. Through their experiences of the various practical skills in the Course, they should become better equipped to make valid personal choices regarding careers and further study.

Opportunities to develop aspects of Core Skills should be used where they arise naturally. For example, in order to carry out automotive activities in a workshop environment, candidates will have to communicate simple automotive terms with their teacher/lecturer and fellow candidates regarding workshop practices, vehicle components, equipment and tools, health and safety and working together in the workplace. Aspects of problem solving will arise through their participation in practical work. The *ICT* Core Skill will be developed in researching materials for their folio evidence.

Teaching and learning approaches should encourage candidates to take responsibility for their own learning and development. In the practical Units of the Course, candidates need to carry out quality checks on their own work. This provides a good opportunity to motivate candidates to take pride in their work. The integration of Employability skills, in particular self-evaluation skills, will enable candidates to take responsibility for seeking feedback and identifying action points for improvement in their own performance. This should help to develop confidence in taking advice and in asking for direction and assistance where necessary.

## National Course Specification: Course details (cont)

### **COURSE** National 4 Automotive Skills

#### **Preparation for practical activities, visiting speakers, visits**

Throughout the Course, the need for correct preparation for practical activities should be stressed. However, such preparation should not take excessive time to complete. Teaching correct skills practice, effective use of tools and equipment and a positive view of health and safety should help to ensure that preparation for practical work is comprehensive.

Candidates will require supervision during practical work — both on a skills level and for health and safety reasons. The learning environment should be designed to minimise risks and provide a safe context for carrying out tasks. For example, when using cleaning materials candidates should be made aware of the risk from fumes and skin contact to themselves and others.

It is recommended that each practical session be preceded by a ‘tool box’ talk on an aspect of health and safety relevant to the work in hand. It is recommended that candidates be given regular but short practice sessions in the correct use of the materials to be used in each session as well as coaching in the correct use of associated tools and equipment.

Centres are encouraged to establish links with industry representatives, who may be willing to offer support in the form of visits from a member of staff to give candidates a realistic view of jobs and conditions in the automotive industry. It may be possible for centres to arrange visits to local dealerships and garages as part of the candidates’ learning experience, to help candidates build knowledge and understanding of the job roles within the automotive industry.

Group fact finding activities could also be arranged so that candidates can share information about the wide range of possible career routes and job roles.

Students on Modern Apprenticeship programmes can also provide a source of information and knowledge to relate to candidate groups.

#### **Legislation**

Risk assessment and compliance with health and safety legislation is of paramount importance in this Course.

Opportunities should be taken within the Course to integrate the required knowledge of current relevant health and safety legislation in a real context. Simulated activities could be set up which clearly demonstrate risks that may be found in a working automotive environment. Legislation could be related to the safe use of equipment in the workshop. In this way the health and safety legislation/requirements will not only be more relevant, but will be more easily understood and remembered. Candidates could be asked, in groups, to carry out simple risk assessments in the workshop and report back to the class. The emphasis should always be on the practice of working safely. The extent of knowledge required by candidates must be clearly defined and appropriate to National 4.

Centres will need to be familiar with the requirements of the Health and Safety at Work Act, The Personal Protective Equipment (PPE) Regulations, Control of Substances Hazardous to Health (COSHH) and the Provision and Use of Work Equipment (PUWER) Regulations as well as any other legislative requirements where risk assessments are required. This list of statutes is not intended to be exhaustive, and centres must comply with all current relevant legislation whether listed or otherwise.

## National Course Specification: Course details (cont)

### COURSE National 4 Automotive Skills

#### Approaches to assessment

The Evidence Requirements for Units within the National 4 Automotive Skills Course are fully expressed in the mandatory section of each Unit Specification.

Approaches to assessment that promote the efficient and effective gathering of evidence are to be encouraged. A variety of approaches are used for gathering evidence, reflecting the variety of learning experiences offered across the Course. Checklists should be used where appropriate to help reduce the burden of gathering evidence and the National Assessment Bank (NABs) provide examples. If a centre wishes to design its own checklists, they should be of a comparable standard.

The development and assessment of generic Employability Skills is a key feature of this Course and is integrated within each of the Units. Candidates can readily gather evidence for assessment during their work in these Units. Reviewing progress with automotive employability skills and attitudes will take place in the practical context of work in the different activities. Candidates will complete a minimum of four review sheets in the practical Units. An employability skills profile for the Course is included in the Appendix and this gives a clear indication of where assessment evidence is gathered for generic employability skills.

Within the practical elements of each Unit, the candidate will produce evidence as a natural part of the learning and teaching process. Candidates will first learn and practise the correct techniques and methods for each of the skills they undertake. Assessment of the various practical tasks will take place at appropriate points throughout the Course, allowing time for candidates to make quality checks of their finished products against the specification, before being submitted for assessment.

In the *Automotive Skills: The Vehicle Modification Project* Unit candidates **can if appropriate** work in teams of no more than three to plan and carry out the modification. It is expected that the modification completed by such a team will be of sufficient complexity and scope to allow all members of the team to make a contribution equal to the completion of a modification by an individual candidate.

#### Resource Requirements

The National 4 Automotive Skills Course requires access to safe and suitably equipped, classrooms, workshops or work areas to deliver and assess the vocational skill options. These workshops or work areas should be of an appropriate size and have sufficient tools, equipment and resources to deliver and assess the Units for the number of learners in the class group. This may take the form of a combined workshop/project area divided into suitable work areas for each skill, or separate workshops. Storage areas for materials and personal protective equipment (PPE) should also be provided. It is recognised that some centres will not have facilities available to deliver all of the options in this qualification; in these cases, appropriate partnership arrangements would provide the learning environments and/or expertise necessary to deliver the Course. Responsibilities for health and safety and safe systems of work should be discussed and agreed by partners at the commencement of the Course.

## **National Course Specification: Course details (cont)**

**COURSE**      National 4 Automotive Skills

### **DISABLED CANDIDATES AND/OR THOSE WITH ADDITIONAL SUPPORT NEEDS**

The additional support needs of individual candidates should be taken into account when planning learning experiences, selecting assessment instruments, or considering whether any reasonable adjustments may be required. Further advice can be found on our website

**[www.sqa.org.uk/assessmentarrangements](http://www.sqa.org.uk/assessmentarrangements)**



## National Course Specification: Course details

**COURSE** National 4 Automotive Skills

### Appendix: Employability Skills Profile

In addition to the specific, vocational skills developed and assessed in this Course, employability skills are addressed as detailed in the table below. For the purposes of the table, the Units are referred to as A, B, C and D as indicated.

<b>Automotive Skills: The Garage</b>	= A
<b>Automotive Skills: The Technician</b>	= B
<b>Automotive Skills: The Car</b>	= C
<b>Automotive Skills: The Vehicle Modification Project</b>	= D

Employability skill/attitude	Evidence
◆ Positive attitude towards learning	A, B, C, D
◆ Good timekeeping and attendance	B, C, D
◆ Following instructions	A, B, C, D
◆ Awareness of the implications of health and safety requirements	A, B, C, D
◆ Importance of appropriate dress code	A, B, C, D
◆ Good communication skills	A, B, C, D
◆ Preparing and planning for work	B, C, D
◆ Awareness of the monetary value of the vehicles being worked on and their importance to the customer	B, C, D
◆ Ability to work in a team	B, D
◆ Confidence to provide and to seek feedback	A, B, C, D
◆ Flexible approach to solving problems	B, D
◆ Adaptability to change	D
◆ Understanding the workplace, the job roles and the career paths within it	A, B, C
◆ Awareness of environmental issues affecting the automotive industry	A, B, C D

#### Assessment evidence in all Units:

- A = Candidate folio of information gathered on job roles and responsibilities, industry structure, health and safety legislation. Workshop inspection checklist. Candidate review of employability skills.
- B = Assessor observation checklist of practical tasks removing and replacing vehicle components. Candidate review of employability skills.
- C = Assessor observation checklists of practical activities carrying out vehicle checks, wheel changes and valeting. Candidate review of employability skills.
- D = Modification plan, assessor observation checklist of preparation and performance carrying out the modification. Candidate review of employability skills.



## National Unit Specification: general information

**UNIT** Automotive Skills: The Garage (SCQF level 4)

**CODE** F8MW 10

### SUMMARY

This Unit has been designed as a mandatory Unit of the Skills for Work: Automotive Skills Course at National 4 and can also be taken as a free-standing Unit.

The Unit introduces candidates to the structure and organisation of the retail automotive industry and the range of job roles and responsibilities within it.

Candidates will use a range of research sources and activities to help develop their knowledge and understanding of the automotive industry, the businesses within it, and the diversity of job roles it offers. The Unit also provides an opportunity to understand some of the health and safety legislation applicable to vehicle service and repair workshops.

Candidates will have the opportunity to review and develop their own employability skills throughout this Unit.

This Unit is suitable for those who have no previous qualifications or experience and wish to gain an introductory qualification as part of their general education or in preparation for more specialised study.

### OUTCOMES

- 1 Demonstrate knowledge and understanding of the structure of the retail automotive industry and the roles and responsibilities of individuals working within it.
- 2 Demonstrate knowledge and understanding of the relevant health and safety requirements in an automotive service and repair workshop.
- 3 Review and evaluate own employability skills profile.

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#### Administrative Information

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## National Unit Specification: general information (cont)

**UNIT** Automotive Skills: The Garage

### RECOMMENDED ENTRY

While entry is at the discretion of the centre, it would be advantageous for candidates to have attained or be working towards one or more of the following Skills for Work units, or equivalent:

F8MY 10 *Automotive Skills: The Technician*  
F8MX 10 *Automotive Skills: The Car*

### CREDIT VALUE

1 credit at SCQF level 4 (6 SCQF credit points at SCQF level 4\*).

*\*SCQF credit points are used to allocate credit to qualifications in the Scottish Credit and Qualifications Framework (SCQF). Each qualification in the Framework is allocated a number of SCQF credit points at an SCQF level. There are 12 SCQF levels, ranging from Access 1 to Doctorates.*

### CORE SKILLS

Opportunities to develop aspects of Core Skills are highlighted in the Support Notes of this Unit Specification.

There is no automatic certification of Core Skills or Core Skill components in this Unit.

## **National Unit Specification: statement of standards**

### **UNIT Automotive Skills: The Garage (SCQF level 4)**

Acceptable performance in this Unit will be the satisfactory achievement of the standards set out in this part of the Unit Specification. All sections of the statement of standards are mandatory and cannot be altered without reference to SQA.

#### **OUTCOME 1**

Demonstrate knowledge and understanding of the structure of the retail automotive industry and the roles and responsibilities of individuals working within it.

##### **Performance Criteria**

- (a) Research and identify the different types of business which make up the automotive industry.
- (b) Describe the organisational structure of an automotive dealership.
- (c) List the responsibilities relating to specific job roles within the automotive industry.
- (d) Identify a range of career opportunities within the automotive industry.
- (e) Gather information on training, qualifications and experience needed for these careers.

#### **OUTCOME 2**

Demonstrate knowledge and understanding of the relevant health and safety requirements in an automotive service and repair workshop.

##### **Performance Criteria**

- (a) Explain the difference between hazards and risks.
- (b) Identify potential hazards in an automotive repair workshop.
- (c) Recognise safety signage relevant to an automotive repair workshop.
- (d) Identify legislation relevant to health and safety in an automotive repair workshop.
- (e) Demonstrate a practical understanding of safe working within an automotive repair workshop.

#### **OUTCOME 3**

Review and evaluate own employability skills profile.

##### **Performance Criteria**

- (a) Identify own strengths and weaknesses.
- (b) Seek and record feedback from teacher/lecturer on own performance.
- (c) Identify action points for improvement in relation to employability skills.

## National Unit Specification: statement of standards (cont)

### UNIT Automotive Skills: The Garage (SCQF level 4)

#### EVIDENCE REQUIREMENTS FOR THIS UNIT

Product, written/oral recorded and performance evidence which covers all the Outcomes and Performance Criteria are required for this Unit.

#### Outcomes 1 and 2 — Folio

An assignment will be set which the candidate will complete in open-book conditions. Evidence may be gathered throughout the Unit and final selection of items for inclusion in a folio should take place towards the end of the Unit under supervision.

The folio should contain:

- ◆ a description of the different businesses which make up the retail automotive industry
- ◆ a description of the organisational structure of an automotive vehicle dealership
- ◆ a list of the roles and responsibilities of specified jobs in an automotive workshop
- ◆ a list with a minimum of three career opportunities in the automotive industry with an explanation of the training, qualifications and experience needed for these careers
- ◆ a list (or completed form) that accurately identifies risks and hazards in an automotive workshop
- ◆ an example of the location and meaning of a minimum of four safety signs found in an automotive workshop
- ◆ a description of the four main pieces of legislation relating to health and safety as applied in an automotive workshop:
  - Health and Safety at Work Act
  - Personal Protective Equipment (PPE) Regulations
  - Control of Substances Hazardous to Health (COSHH) Regulations
  - Provision and Use of Work Equipment (PUWER) regulations

As part of this assignment candidates will be required to carry out an inspection of a vehicle workshop and demonstrate their health and safety awareness. Using a prescribed checklist they will show that they are able to:

- ◆ identify hazards and risks within automotive workshops
- ◆ recognise appropriate safety signs and notices
- ◆ identify good working practices

Practical activities must be carried out in a realistic working environment or real workplace where the candidate is able to not only recognise hazards and risks, but also identify good working practices.

## **National Unit Specification: statement of standards (cont)**

### **UNIT**      Automotive Skills: The Garage (SCQF level 4)

#### **Outcome 3**

Candidates must identify their own strengths and weaknesses using a self evaluation review and obtain feedback from their teacher/lecturer in relation to a specified list of employability skills. Candidates must also identify action points for improvement.

A signed record of the review must be retained by the assessor as assessment evidence.

The National Assessment Bank pack provided for this Unit illustrates the standard that should be applied. It includes candidate assignments and checklists for Outcomes 1 and 2 assessor checklists for Outcomes 1 and 2 and a candidate self evaluation review record for Outcome 3. If a centre wishes to design its own assessments for this Unit, they should be of a comparable standard.

## National Unit Specification: support notes

### UNIT Automotive Skills: The Garage (SCQF level 4)

This part of the Unit Specification is offered as guidance. The support notes are not mandatory.

While the exact time allocated to this Unit is at the discretion of the centre, the notional design length is 40 hours.

#### GUIDANCE ON THE CONTENT AND CONTEXT FOR THIS UNIT

This Unit is designed to provide candidates with an introduction to the retail automotive industry and the job roles within it. Candidates will have the opportunity to discover the different businesses that make up the industry and the diverse range of job roles within it. They will also develop an understanding of the training and qualifications required for those working in the automotive industry and recognize how these relate to career opportunities. Basic health and safety requirements are also included as candidates will need to understand the importance of adhering to safe working practices and complying with health and safety legislation.

The Outcomes of this Unit can be integrated with *Automotive Skills: The Car* and *Automotive Skills: The Technician* allowing the candidate to better understand the content as applied in a practical automotive context.

Essential areas of knowledge are:

- ◆ types of businesses within the automotive industry
- ◆ organisational structure of a vehicle dealership
- ◆ roles and responsibilities of employees in a vehicle dealership
- ◆ career opportunities within the automotive industry
- ◆ training and qualifications required for specific job roles
- ◆ difference between risks and hazards
- ◆ recognising current health and safety legislation relevant to working in the automotive industry and where further information is available on:
  - Health and Safety at Work Act
  - Personal Protective Equipment Regulations (PPE)
  - COSHH (Control of Substances Hazardous to Health) Regulations
  - Provision and Use of Work Equipment Regulations (PUWER)
- ◆ safe working practices
- ◆ safety signage
- ◆ importance of appropriate personal protective equipment

Candidates will use a variety of resources to research the structure and organisation of the industry and focus on specified job roles. Discovering what qualifications, training and skills are required to work in these jobs will develop a better understanding of the mix of skills and knowledge needed to allow a modern automotive business to function efficiently.

An awareness of basic health and safety legislation is essential. Although candidates are not required to know the detail of the legislation they should understand their responsibilities within it particularly with regard to their own health and safety as well as that of others. This gives an excellent opportunity to integrate health and safety across the other Units within this award where practical activities are more evident. They will check working areas for potential and actual hazards and identify associated risks and how to deal with them.

## National Unit Specification: support notes (cont)

### UNIT Automotive Skills: The Garage (SCQF level 4)

In addition to the specific vocational skills and knowledge developed and assessed the candidate will have the opportunity to develop their employability skills profile.

The following list of employability skills and behaviours have been identified by employers in the automotive industry and are an important part of the content of this Unit.

- ◆ positive attitude towards learning:\*
  - showing commitment and flexibility
  - showing an interest in the automotive industry
  - showing a willingness to learn
- ◆ good timekeeping and attendance
- ◆ following instructions\*
- ◆ awareness of the implications of health and safety requirements\*
- ◆ importance of appropriate dress code\*
- ◆ good communication skills\*
- ◆ preparing and planning for work
- ◆ awareness of the monetary value of the vehicles being worked on and their importance to the customer
- ◆ ability to work in a team
- ◆ flexible approach to solving problems
- ◆ adaptability to change
- ◆ confidence to provide and to seek feedback\*
- ◆ understanding the workplace, the job roles and the career paths within it\*
- ◆ awareness of environmental issues affecting the automotive industry

Assessment activity for this Unit will clearly identify a number of employability skills (marked with an asterisk\*). However there are opportunities throughout this Unit to develop the remaining skills.

Every opportunity should be taken during this Unit to highlight that the Employability and Core Skills developed not only apply in the automotive workplace but in many other aspects of life and work.

Delivery of this Unit will involve both classroom based and practical activities in either a real workplace, or a realistic working environment, which will develop the candidate's overall knowledge and understanding of the automotive industry.

### **GUIDANCE ON LEARNING AND TEACHING APPROACHES FOR THIS UNIT**

An induction to the Unit should include a discussion with the candidate on the requirements of the Unit and how these will be achieved. Candidates should be encouraged to use a variety of resources and activities designed to enhance their awareness of the automotive industry and approaches to learning and teaching should be practical and experiential wherever possible.

Each part of learning and teaching should incorporate both theory and practice to facilitate learning. Integration with other Units within this Course will allow the candidate to understand the practical application of what they have learned.



## National Unit Specification: support notes (cont)

### UNIT Automotive Skills: The Garage (SCQF level 4)

In Outcome 1 candidates will be required to know about the types of businesses that make up the automotive industry and the requirements of the people working within it. The learning and teaching should be based around candidate centred activity which allows the candidate to build a portfolio of information. Research on particular job roles could be completed on an individual basis which is then shared with other students or as part of a group or class activity. The latter encourages working with others and raising awareness of the need to work cooperatively, an attribute critical in the automotive industry.

Links with industry representatives as well as colleges or training centres delivering automotive training can enhance the learning experience by providing site visits and/or visiting speakers who can offer a realistic view of the industry and its career opportunities. Centres are encouraged to develop such links to help candidates build their knowledge and understanding.

Time can also be spent looking at the entry requirements and progression routes for individuals considering a future in the automotive industry and what training and qualifications would be required to follow a particular career path. Useful material and employment requirements can be sourced from industry bodies, trade magazines, vehicle manufacturers and automotive dealer group websites as well as the wider internet.

Although candidates are not expected to know the detail of health and safety requirements they do need to have an awareness of the four main pieces of legislation. In Outcome 2 the learning and teaching should integrate this knowledge with an understanding of how it applies to the automotive industry. Simulated activities and role play exercises could be set up which enable candidates to carry out simple risk assessments on specific pieces of equipment and procedures in a vehicle workshop environment and identify control measures to minimise the risks. This activity could be integrated with the other Units within this Course allowing the candidate to apply the knowledge in a practical context. An example may be an analysis of the risks and how to minimise them when carrying out the wheel change activity in the vehicle Unit, encouraging good working practices. Candidates can also provide evidence of carrying out a safety audit on a workshop, identifying areas such as hazards, health and safety signage, emergency procedures, restrictions and both good and bad working practices. This information could be reported back to a class, developing presentation skills and encouraging discussion activity based around the findings.

Throughout delivery of the Unit candidates should be encouraged to seek advice and guidance which encourages them to evaluate their progress and set personal goals and objectives.

The Unit incorporates the opportunity to employ a number of teaching and learning approaches such as:

- ◆ Teacher/lecturer presentations
- ◆ Video presentations
- ◆ Visiting speakers
- ◆ Site visits
- ◆ Media and internet research
- ◆ Group and class discussion
- ◆ Individual and group research
- ◆ Practical activities
- ◆ Simulated activities

## National Unit Specification: support notes (cont)

### UNIT Automotive Skills: The Garage (SCQF level 4)

- ◆ Handouts
- ◆ Reflection and evaluation

Achievement of this Unit will be dependent on the candidate being able to demonstrate both knowledge and practical application of the skills and understanding needed to work in the automotive industry.

At this level it is expected candidates will be given support and guidance from the assessor/teacher/lecturer prior to progressing to assessment.

### OPPORTUNITIES FOR CORE SKILL DEVELOPMENT

In this Unit candidates will carry out activities both in a classroom and a workshop situation both as an individual and as a group. These activities will involve listening, collecting information and seeking advice, providing good opportunities for developing aspects of Core Skills in the areas of *Information and Communication Technology, Communication and Working with Others*.

The investigations included within the Unit will demand a degree of numeracy skills combined with a problem solving ability.

### GUIDANCE ON APPROACHES TO ASSESSMENT FOR THIS UNIT

The Evidence Requirements for this Unit are fully expressed in the mandatory section of this Unit Specification.

Evidence to be included in the folio should be gathered by the candidate on an ongoing basis and gathered at different points throughout the Unit. The final selection for inclusion in the folio of evidence should be conducted under supervision, allowing a final submitted folio of evidence without the need for re-assessment.

In Outcome 1 PC (c) candidates should provide information on different job roles to reflect the size of the organisation selected.

Evidence should be gathered over a realistic timeframe, providing the candidate with the opportunity to witness good working practices during the health and safety inspection. The recognition of the application of health and safety legislation could be integrated with the other Units of this Course.

### Opportunities for the use of e-assessment

E-assessment may be appropriate for some assessments in this Unit. By e-assessment we mean assessment which is supported by information and communications technology (ICT), such as e-testing or the use of e-portfolios or e-checklists. Centres which wish to use e-assessment must ensure that the national standard is applied to all candidate evidence and that conditions of assessment as specified in the Evidence Requirements are met, regardless of the mode of gathering evidence. Further advice is available in *SQA Guidelines on Online Assessment for Further Education (AA1641, March 2003)*, *SQA Guidelines on e-assessment for Schools (BD2625, June 2005)*.

## **National Unit Specification: support notes (cont)**

### **UNIT**      Automotive Skills: The Garage (SCQF level 4)

The National Assessment Bank pack provided for this Unit illustrates the standard that should be applied. It includes candidate assignments and checklists for Outcomes 1, and 2, assessor checklists for Outcomes 1 and 2 and a candidate self evaluation review for Outcome 3. If a centre wishes to design its own assessments for this Unit, they should be of a comparable standard.

### **DISABLED CANDIDATES AND/OR THOSE WITH ADDITIONAL SUPPORT NEEDS**

The additional support needs of individual candidates should be taken into account when planning learning experiences, selecting assessment instruments, or considering whether any reasonable adjustments may be required. Further advice can be found on our website [www.sqa.org.uk/assessmentarrangements](http://www.sqa.org.uk/assessmentarrangements)



## National Unit Specification: general information

**UNIT** Automotive Skills: The Technician (SCQF level 4)

**CODE** F8MY 10

### SUMMARY

This Unit has been designed as a mandatory Unit of the Skills for Work Automotive Skills Course at National 4 and can also be taken as a free-standing Unit.

The Unit introduces candidates to some of the tools and techniques used by technicians in the automotive industry.

The candidate will use a range of common hand tools as well as more specialised tools and equipment. Candidates will also learn the names, functions and serviceability of automotive components while engaging in practical activities as well as gaining basic knowledge of working safely in an automotive engineering environment.

To enrich the candidate's understanding and range of associated skills they will carry out engineering processes such as Spot welding, Soldering, Thread cutting and Brake pipe manufacture.

Candidates will have the opportunity to review and develop their own employability skills throughout the Unit.

This Unit is suitable for those who have no previous qualifications or experience and wish to gain an introductory award as part of a general education or to more specialised study.

### OUTCOMES

- 1 Demonstrate knowledge of the function and serviceability of a selection of vehicle components.
- 2 Prepare for and carry out the removal and replacement of automotive assemblies and components.
- 3 Prepare for and carry out engineering processes relevant to the automotive industry.
- 4 Review and evaluate own employability skills profile.

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#### Administrative Information

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## **National Unit Specification: general information (cont)**

**UNIT**      Automotive Skills: The Technician (SCQF level 4)

### **RECOMMENDED ENTRY**

While entry is at the discretion of the centre it would be advantageous for candidates to have attained or be working towards one or more of the following Skills for Work Units or equivalent:

F8MX 10      *Automotive Skills: The Car*  
F8MW 10      *Automotive Skills: The Garage*

### **CREDIT VALUE**

1 credit at SCQF level 4 (6 SCQF credit points at SCQF level 4\*).

*\*SCQF credit points are used to allocate credit to qualifications in the Scottish Credit and Qualifications Framework (SCQF). Each qualification in the Framework is allocated a number of SCQF credit points at an SCQF level. There are 12 SCQF levels, ranging from Access 1 to Doctorates.*

### **CORE SKILLS**

Opportunities to develop aspects of Core Skills are highlighted in the Support Notes of this Unit Specification.

There is no automatic certification of Core Skills or Core Skill components in this Unit.

## **National Unit Specification: statement of standards**

### **UNIT Automotive Skills: The Technician (SCQF level 4)**

Acceptable performance in this Unit will be the satisfactory achievement of the standards set out in this part of the Unit Specification. All sections of the statement of standards are mandatory and cannot be altered without reference to SQA.

#### **OUTCOME 1**

Demonstrate knowledge of the function and serviceability of a selection of vehicle components.

##### **Performance Criteria**

- (a) Identify correctly a selection of vehicle components.
- (b) Describe correctly the function of the selected vehicle components.
- (c) Identify correctly faulty/worn components.

#### **OUTCOME 2**

Prepare for and carry out the removal and replacement of automotive assemblies and components.

##### **Performance Criteria**

- (a) Identify common automotive tools and equipment and clearly state their function.
- (b) Select and use an appropriate range of automotive tools and equipment correctly.
- (c) Remove and replace automotive components and assemblies correctly.
- (d) Complete a quality check of own work to ensure all components and fasteners are replaced correctly.
- (e) Adhere to safe working practices while carrying out all activities.

#### **OUTCOME 3**

Prepare for and carry out engineering processes relevant to the automotive industry.

##### **Performance Criteria**

- (a) Select and use a range of specialised tools correctly.
- (b) Complete a series of practical tasks applying to a range of automotive engineering processes.
- (c) Adhere to safe working practices while carrying out all activities.

#### **OUTCOME 4**

Review and evaluate own employability skills profile.

- (a) Identify own strengths and weaknesses.
- (b) Seek and record feedback from teacher/lecturer on own performance.
- (c) Identify action points for improvement in relation to employability skills.

## **National Unit Specification: statement of standards**

**UNIT**      Automotive Skills: The Technician (SCQF level 4)

### **EVIDENCE REQUIREMENTS FOR THIS UNIT**

Performance and written/oral recorded evidence which covers all the Outcomes and Performance Criteria is required for this Unit.

Performance evidence must be supported by assessor observation checklists. This evidence must be generated by the completion of supervised practical activities carried out in workshop conditions. A test will also be used to assess knowledge of the names and functions of tools and standard vehicle components.

#### **Outcomes 1 and 2 — Written/oral evidence**

Candidates will be tested in open-book, supervised conditions, on their knowledge of the components and tools specified. They must state the names and uses of 10 vehicle components and 10 common tools. 4 out of the 10 components should be faulty/worn. The candidate must identify the fault or wear.

#### **Outcomes 1 and 2 — Performance evidence**

Evidence for these Outcomes will be gathered throughout the Unit as the candidate carries out the practical tasks as listed below. Centres may integrate related tasks.

Candidates will be required to demonstrate by practical activity on one occasion that they are able to:

- ◆ select and use the following range of tools and equipment correctly:
  - socket sets (including common sizes of ratchets, extensions and spanners)
  - trolley jack
  - axle stands
  - torque wrench
  - screwdrivers
  - oil filter removal tool
  - vehicle hoist
  
- ◆ remove and replace correctly:
  - the oil filter
  - spark plugs
  - a road wheel
  - an inlet manifold on static engine
  - an exhaust manifold on static engine
  - wiper blades
  - brake pads
  - a brake disc
  - a light bulb
  - an air filter

## National Unit Specification: statement of standards (cont)

### UNIT Automotive Skills: The Technician (SCQF level 4)

- ◆ assess the serviceability of the specified components
- ◆ complete a quality check of practical work
- ◆ adhere to safe working practices whilst carrying out all activities

An assessor observation checklist must be used to provide evidence of performance.

#### Outcome 3 — Performance evidence

Evidence for this Outcome will be gathered throughout the Unit as the candidate carries out the practical activities as listed below.

Candidates will be required to demonstrate by practical activity on one occasion that they are able to:

- ◆ select and use a range of specialised tools correctly
- ◆ complete the following practical tasks:
  - soldering connectors
  - brake pipe manufacture
- ◆ adhere to safe working practices while carrying out all activities

These practical tasks can be carried out as individual exercises or integrated to produce small practical projects.

An assessor observation checklist must be used to provide evidence of performance.

#### Outcome 4 — Candidate review

Candidates must identify their own strengths and weaknesses using a self evaluation review, and obtain feedback from their teacher/lecturer in relation to the specified list of employability skills. Candidates must also identify action points for improvement.

A signed record of the review must be retained by the assessor as assessment evidence.

The National Assessment Bank pack provided for this Unit illustrates the standard that should be applied. It includes oral/written questions for Outcomes 1 and 2 and assessor observation checklists for Outcomes 1–3 and a candidate self-evaluation record for Outcome 4. If a centre wishes to design its own assessments for this Unit they should be of a comparable standard.



## **National Unit Specification: support notes**

### **UNIT Automotive Skills: The Technician (SCQF level 4)**

This part of the Unit Specification is offered as guidance. The support notes are not mandatory.

While the exact time allocated to this Unit is at the discretion of the centre, the notional design length is 40 hours.

#### **GUIDANCE ON THE CONTENT AND CONTEXT FOR THIS UNIT**

This Unit is designed to help candidates gain an understanding of the types of activities, skills and environment associated with a technician's role in the automotive industry. Candidates will have the opportunity to work on vehicles and assemblies using a range of common tools and equipment. They will gain experience and confidence that will enable them to make informed choices for future study and employment. The Unit will also familiarise candidates with working practices and with Health and Safety issues relating to the automotive industry. The candidate will develop skills in the use of hand tools and equipment through practice, progressively learning to select and use the most appropriate tools and equipment for a given task.

During the process of practical work candidates will become accustomed to working with others and in groups, sharing equipment and being aware of the need to work cooperatively. Candidates will have the opportunity to develop good working practice which will include carrying out a quality check of their own work. They should also learn and become accustomed to using associated terminology.

The range of processes carried out to achieve Outcome 3 will help candidates develop knowledge of basic repair processes as well as construction methods used in the automotive industry. Centres may if they have the appropriate facilities/expertise wish to extend this to cover body repair and paint processes.

While carrying out the practical activities associated with Outcomes 1–3 candidates will gain experience of the workshop environment and roles of employees. The teacher/lecturer may allocate individuals/groups to team roles to enhance the candidate's knowledge of the different jobs within a working dealership/centre.

Time can also be spent developing the candidate's appreciation of the financial cost involved in service tasks as well as tools, service parts and equipment. Tool catalogues can be used to cost a basic tool kit and the use of freely available commercial websites would develop candidates' understanding of the cost of parts and how to select the correct replacement part.

The context for learning must include the requirement for appropriate PPE, appropriate conduct, and correct care of tools and equipment.

In addition to the vocational content, candidates should be encouraged to develop a positive approach to the employability skills identified by employers. These should be taught as an integral part of the Unit. Opportunities will arise while working in the workshop environment to highlight the value of a positive attitude, good timekeeping, appropriate appearance, good customer care, communication skills, teamwork, respect and consideration for others, time management and an understanding of current relevant health and safety legislation.

## National Unit Specification: support notes (cont)

### UNIT Automotive Skills: The Technician (SCQF level 4)

The following list of employability skills and behaviours have been identified by employers in the automotive industry and are an important part of the content of this Unit.

- ◆ positive attitude towards learning:\*
- showing commitment and flexibility
- showing an interest in the automotive industry
- showing a willingness to learn
- ◆ good timekeeping and attendance\*
- ◆ following instructions\*
- ◆ awareness of the implications of health and safety requirements\*
- ◆ importance of appropriate dress code\*
- ◆ good communication skills
- ◆ preparing and planning for work\*
- ◆ awareness of the monetary value of the vehicles being worked on and their importance to the customer
- ◆ ability to work in a team
- ◆ flexible approach to solving problems
- ◆ adaptability to change
- ◆ confidence to provide and to seek feedback\*
- ◆ understanding the workplace, the job roles and the career paths within it
- ◆ awareness of environmental issues affecting the automotive industry

Assessment activity for this Unit will clearly identify a number of employability skills (marked with an asterisk\*). However there are opportunities throughout this Unit to develop the remaining skills.

### GUIDANCE ON LEARNING AND TEACHING APPROACHES FOR THIS UNIT

It is important that at the start of the Unit candidates are introduced to the workshop environment and that attention is drawn to relevant health and safety issues, eg Control of Substances Hazardous to Health (COSHH), Personal Protective Equipment (PPE), as well as the location of First Aid and fire fighting equipment. Time should be taken to discuss the implications arising for an employer/employee if these are ignored. The employability skills that will be developed throughout the Unit should be highlighted as well as the benefits of acquiring such skills.

The Unit will be largely experiential through the completion of practical tasks but it is vital that sufficient time is taken to explain the purpose of carrying out the task, the application of the skills being learned and in what situation each task would be required on a vehicle or in the workplace.

There is an ideal opportunity for reflection if at the end of each session the teacher/lecturer allocates time when candidates can review what went right and what didn't during the day's session.

The candidate should be made aware of the correct identification and selection of the replacement parts for the vehicle and the implications of the incorrect parts being fitted.

## National Unit Specification: support notes (cont)

### UNIT Automotive Skills: The Technician (SCQF level 4)

Teaching and learning approaches should be varied and may include:

- ◆ Teacher/lecturer demonstrations
- ◆ Video presentations
- ◆ Visits to dealerships, garages, repair centres
- ◆ Visiting speakers
- ◆ Group and team work
- ◆ Self and peer evaluation
- ◆ Role play
- ◆ Discussions and opportunities to analyse problems

### OPPORTUNITIES FOR CORE SKILL DEVELOPMENT

In this Unit candidates will carry out tasks that involve, listening, seeking advice, selecting and using correct tools and equipment, reporting and communicating their views and using ICT as a research tool. They will have to work cooperatively with others and develop skills that apply to a wide range of situations in everyday life and in employment. These are opportunities for developing aspects of the Core Skills of *Information and Communication Technology*, *Communication* and *Working with Others*.

Candidates will also be encouraged to take responsibility for improving their own performance through self evaluation, taking feedback from others, setting goals for improvement and evaluating progress made. These are opportunities for developing aspects of Core Skills in *Communication* and *Problem Solving*.

### GUIDANCE ON APPROACHES TO ASSESSMENT FOR THIS UNIT

The Evidence Requirements are fully expressed in the mandatory section of this Unit Specification.

The candidate will work through the assigned tasks and the assessor will keep a record of the candidate's performance. It is likely that the candidate will need to complete some tasks on more than one occasion until they have gained confidence and experience prior to the assessment. Where candidates are required to demonstrate knowledge of tools/components names and uses, written tests oral interviews or ICT programs may be used.

Employability is assessed by the completion of a self evaluation review where the candidate reviews their performance over the course of the Unit against the employability skills as identified earlier. This is best completed towards the end of the Unit. The candidates identified action points should be kept and agreed by the candidate and assessor.

If candidates are working as a pair or team assessors must satisfy themselves that each candidate is competent in each aspect of the exercise. Candidates are also required to quality check their work and should do so prior to the assessor check.

Some tasks such as the removal and replacement of the road wheel, brake discs and brake pads can be approached as integrated activities.

## **National Unit Specification: support notes (cont)**

### **UNIT**      Automotive Skills: The Technician (SCQF level 4)

#### **Opportunities for the use of e-assessment**

E-assessment may be appropriate for some assessments in this Unit. By e-assessment we mean assessment which is supported by information and communications technology (ICT), such as e-testing or the use of e-portfolios or e-checklists. Centres which wish to use e-assessment must ensure that the national standard is applied to all candidate evidence and that conditions of assessment as specified in the Evidence Requirements are met, regardless of the mode of gathering evidence. Further advice is available in *SQA Guidelines on Online Assessment for Further Education (AA1641, March 2003)*, *SQA Guidelines on e-assessment for Schools (BD2625, June 2005)*.

The National Assessment Bank pack provided for this Unit illustrates the standard that should be applied. It includes oral/written questions for Outcomes 1 and 2 and assessor observation checklists for Outcomes 1–3 and a candidate self-evaluation record for Outcome 4. If a centre wishes to design its own assessments for this Unit they should be of a comparable standard.

#### **DISABLED CANDIDATES AND/OR THOSE WITH ADDITIONAL SUPPORT NEEDS**

The additional support needs of individual candidates should be taken into account when planning learning experiences, selecting assessment instruments, or considering whether any reasonable adjustments may be required. Further advice can be found on our website [www.sqa.org.uk/assessmentarrangements](http://www.sqa.org.uk/assessmentarrangements)



## National Unit Specification: general information

**UNIT** Automotive Skills: The Car (SCQF level 4)

**CODE** F8MX 10

### SUMMARY

This Unit is a mandatory Unit of the Skills for Work National 4 Automotive Skills Course and can also be taken as a free-standing Unit.

The Unit introduces candidates to basic safety checks, wheel changing and valeting using a range of common hand tools, as well as more specialised tools and equipment.

Candidates will learn the names, functions and serviceability of automotive components while engaging in practical activities. The Unit also covers basic knowledge of working safely in an engineering environment.

Candidates will have the opportunity to review and develop their own employability skills throughout the Unit.

This Unit is suitable for candidates with no previous automotive or employment experience.

### OUTCOMES

- 1 Identify, select and use automotive checklists and carry out a safety check.
- 2 Change a road wheel safely using the car's own jack and tool kit.
- 3 Carry out a valet on a car.
- 4 Review and evaluate own employability skills profile.

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#### Administrative Information

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## **National Unit Specification: general information (cont)**

**UNIT**        Automotive Skills: The Car (SCQF level 4)

### **RECOMMENDED ENTRY**

While entry is at the discretion of the centre it would be advantageous for candidates to have attained or be working towards one or more of the following Skills for Work Units or equivalent:

F8MW 10        *Automotive Skills: The Garage*  
F8MY 10        *Automotive Skills: The Technician*

### **CREDIT VALUE**

1 credit at SCQF level 4 (6 SCQF credit points at SCQF level 4\*).

*\*SCQF credit points are used to allocate credit to qualifications in the Scottish Credit and Qualifications Framework (SCQF). Each qualification in the Framework is allocated a number of SCQF credit points at an SCQF level. There are 12 SCQF levels, ranging from Access 1 to Doctorates.*

### **CORE SKILLS**

Opportunities to develop aspects of Core Skills are highlighted in the Support Notes of this Unit Specification.

There is no automatic certification of Core Skills or Core Skill components in this Unit.

## **National Unit Specification: statement of standards**

### **UNIT Automotive Skills: The Car (SCQF level 4)**

Acceptable performance in this Unit will be the satisfactory achievement of the standards set out in this part of the Unit Specification. All sections of the statement of standards are mandatory and cannot be altered without reference to SQA.

#### **OUTCOME 1**

Identify, select and use automotive checklists and carry out a safety check.

##### **Performance Criteria**

- (a) Identify common automotive checklists and clearly explain why these are used.
- (b) Select and use a range of automotive checklists correctly.
- (c) Carry out a vehicle check, using the correct procedure.
- (d) Complete the checklist to ensure all faulty items found are recorded.
- (e) Comply with safe working practices while carrying out all activities.

#### **OUTCOME 2**

Change a road wheel safely using the car's own jack and tool kit.

##### **Performance Criteria**

- (a) Locate the jack and tool kit.
- (b) State accurately the function of the car's own jack and tool kit.
- (c) Carry out a wheel change, using the correct procedure.
- (d) Comply with safe working practices while carrying out all activities.

#### **OUTCOME 3**

Carry out a valet on a car.

##### **Performance Criteria**

- (a) Identify common cleaning agents and equipment and state their function.
- (b) Select an appropriate range of cleaning agents and equipment.
- (c) Use the appropriate range of cleaning agents and equipment.
- (d) Comply with safe working practices while carrying out all activities.

#### **OUTCOME 4**

Review and evaluate own employability skills profile.

- (a) Identify own strengths and weaknesses.
- (b) Seek and record feedback from teacher/lecturer on own performance.
- (c) Identify action points for improvement in relation to employability skills.

## **National Unit Specification: statement of standards (cont)**

**UNIT**        Automotive Skills: The Car (SCQF level 4)

### **EVIDENCE REQUIREMENTS FOR THIS UNIT**

Performance and written/oral recorded evidence that covers all the Outcomes and Performance Criteria is required for this Unit.

#### **Outcome 1, 2 and 3 — Written/oral recorded questions**

Written/oral recorded questions will be set which will be carried out in supervised, open-book conditions. The questions must enable candidates to:

- ◆ identify common automotive checklists and clearly explain why these are used
- ◆ state accurately the function of a car's own jack and tool kit
- ◆ identify six common cleaning agents and state their function
- ◆ identify three pieces of common cleaning equipment and state their function

This evidence should be gathered at an appropriate time throughout the Unit.

#### **Outcome 1 — Performance evidence**

Candidates will be required to demonstrate by practical activity on a minimum of two occasions that they are able to:

- ◆ select and use a range of automotive safety checklists correctly
- ◆ carry out a vehicle check, using the correct procedure
- ◆ complete the checklist recording all faulty items identified
- ◆ comply with safe working practices when carrying out all activities

Practical performance must be demonstrated for two different tasks from the specified list. One of the tasks must be the Vehicle Safety Check. The specified tasks are, Pre Delivery Inspection (PDI), Service, Tyre Safety Check and Vehicle Safety Check.

An assessor observation checklist and accurately completed safety checklist must be used to provide evidence of performance.

#### **Outcome 2 — Performance evidence**

Candidates will be required to demonstrate by practical activity on a minimum of two occasions that they are able to:

- ◆ locate the vehicle jack and tool kit
- ◆ use the jack and tool kit to complete a road wheel change, using the correct procedure
- ◆ comply with safe working practices when carrying out all activities

An assessor observation checklist must be used to provide evidence of performance.



## **National Unit Specification: statement of standards (cont)**

### **UNIT**      Automotive Skills: The Car (SCQF level 4)

#### **Outcome 3 — Performance evidence**

Candidates will be required to demonstrate by practical activity on a minimum of two occasions that they are able to:

- ◆ select an appropriate range of cleaning agents and equipment
- ◆ use the appropriate cleaning agents and equipment
- ◆ comply with safe working practices when carrying out all activities

An assessor observation checklist must be used to provide evidence of performance.

#### **Outcome 4 — Candidate review**

Candidates must identify their own strengths and weaknesses using a self evaluation review record and obtain feedback from their teacher/lecturer in relation to a specified list of employability skills. Candidates must also identify action points for improvement.

A signed record of the review must be retained by the assessor as assessment evidence.

The National Assessment Bank pack provided for this Unit illustrates the standard that should be applied. It includes written/oral questions for Outcomes 1, 2 and 3, assessor observation checklists for Outcomes 1, 2 and 3 and a candidate self evaluation review record for Outcome 4. If a centre wishes to design its own assessments for this Unit, they should be of a comparable standard.

## National Unit Specification: support notes

### UNIT Automotive Skills: The Car (SCQF level 4)

This part of the Unit Specification is offered as guidance. The support notes are not mandatory.

While the exact time allocated to this Unit is at the discretion of the centre, the notional design length is 40 hours.

#### **GUIDANCE ON THE CONTENT AND CONTEXT FOR THIS UNIT**

In this Unit candidates will have the opportunity to develop their skills in the inspection and reporting of the vehicle's condition using a selection of checklists, and carry out a road wheel change using the vehicle's own jack and tool kit. The candidate will also develop skills in carrying out vehicle valeting through practice, progressively learning to select and use the most appropriate cleaning agents, and equipment.

They will gain experience and confidence which will enable them to make informed choices for future study and employment. The Unit will also familiarise the candidate with working practices and Health and Safety issues relating to the automotive industry.

During the process of practical work candidates will become accustomed to working with others and in groups, sharing equipment and being aware of the need to work cooperatively. Candidates will learn good working practice throughout. They should also learn and become accustomed to using associated terminology.

The context for learning must include the requirement for appropriate Personal Protective Equipment (PPE), appropriate conduct, and correct care of tools, chemicals and equipment.

The following list of employability skills and behaviours have been identified by employers in the automotive industry and are an important part of the content of this Unit.

- ◆ positive attitude towards learning:\*
- showing commitment and flexibility
- showing an interest in the automotive industry
- showing a willingness to learn
- ◆ good timekeeping and attendance\*
- ◆ following instructions\*
- ◆ awareness of the implications of health and safety requirements\*
- ◆ importance of appropriate dress code\*
- ◆ good communication skills
- ◆ preparing and planning for work\*
- ◆ awareness of the monetary value of the vehicles being worked on and their importance to the customer
- ◆ ability to work in a team\*
- ◆ flexible approach to solving problems
- ◆ adaptability to change
- ◆ confidence to provide and to seek feedback\*
- ◆ understanding the workplace, the job roles and the career paths within it\*
- ◆ awareness of environmental issues affecting the automotive industry\*

## National Unit Specification: support notes (cont)

### UNIT Automotive Skills: The Car (SCQF level 4)

Assessment activity for this Unit will clearly identify a number of employability skills (marked with an asterisk\*). However there are opportunities throughout this Unit to develop the remaining skills.

#### GUIDANCE ON LEARNING AND TEACHING APPROACHES FOR THIS UNIT

At the start of the Unit candidates should be introduced to the workshop environment and relevant health and safety requirements, eg Control of Substances Hazardous to Health (COSHH), Personal Protective Equipment (PPE), location of first aid and fire fighting equipment. Time should be taken to discuss the implications arising for an employer/employee if these are ignored.

The employability skills that will be developed throughout the Unit should be highlighted and the benefits of acquiring/demonstrating these skills discussed.

The Unit will be largely experiential through the completion of practical tasks. It is therefore vital that sufficient time is taken to explain the purpose of carrying out the task, the application of the skills being learned and in what situation each task would be required on a vehicle or in the workplace.

While carrying out the practical activities associated with Outcomes 1–3 candidates will gain experience of the workshop environment and roles of employees. The teacher/lecturer may allocate individuals/groups to team roles to enhance the candidate's knowledge of the different jobs within a working dealership/centre.

Candidates should be given an understanding of the safety implications of changing a road wheel at the road side.

Teaching and learning approaches should be varied and may include:

- ◆ Teacher/lecturer demonstrations
- ◆ Video presentations
- ◆ Visits to dealerships, garages, repair centres
- ◆ Visiting speakers
- ◆ Group and team work
- ◆ Self and peer evaluation
- ◆ Role play
- ◆ Discussions and opportunities to analyse problems

#### OPPORTUNITIES FOR CORE SKILL DEVELOPMENT

In this Unit candidates will carry out tasks that involve, listening, seeking advice, reporting and communicating their views. These are opportunities for developing aspects of the Core Skill of *Communication*.

Candidates will also be encouraged to take responsibility for developing their own performance through self evaluation, taking feedback from others, setting goals for improvement and evaluating progress made. These are opportunities for developing aspects of Core Skills in *Communication* and *Problem Solving*.

Throughout the Unit candidates will have to work cooperatively with others and develop skills that apply to a wide range of situations in everyday life and in employment.

## **National Unit Specification: support notes (cont) UNIT**

### **Automotive Skills: The Car (SCQF level 4) GUIDANCE ON**

#### **APPROACHES TO ASSESSMENT FOR THIS UNIT**

The Evidence Requirements are fully expressed in the mandatory section of this Unit Specification.

The candidate will work through the assigned tasks and the assessor will keep a record of the candidate's performance. Candidates should have the opportunity to practise tasks enabling them to gain confidence and experience prior to being assessed. Where candidates are required to demonstrate knowledge of chemicals/equipment and materials, names and uses, written tests, oral interviews and/or ICT programs may be used.

Employability is assessed by the completion of a self evaluation review where the candidate reviews their performance against the identified employability skills. This is best completed towards the end of the Unit. The candidate's identified action points should be kept and agreed by both candidate and assessor.

If candidates are working as a pair or team assessors must be satisfied that each candidate is competent in each aspect of the exercise.

#### **Opportunities for the use of e-assessment**

E-assessment may be appropriate for some assessments in this Unit. By e-assessment we mean assessment which is supported by information and communications technology (ICT), such as e-testing or the use of e-portfolios or e-checklists. Centres which wish to use e-assessment must ensure that the national standard is applied to all candidate evidence and that conditions of assessment as specified in the Evidence Requirements are met, regardless of the mode of gathering evidence. Further advice is available in *SQA Guidelines on Online Assessment for Further Education (AA1641, March 2003)*, *SQA Guidelines on e-assessment for Schools (BD2625, June 2005)*.

The National Assessment Bank pack provided for this Unit illustrates the standard that should be applied. It includes written/oral questions for Outcomes 1, 2 and 3, assessor observation checklists for Outcomes 1, 2 and 3 and a candidate self evaluation review record for Outcome 4. If a centre wishes to design its own assessments for this Unit, they should be of a comparable standard.

#### **DISABLED CANDIDATES AND/OR THOSE WITH ADDITIONAL SUPPORT NEEDS**

The additional support needs of individual candidates should be taken into account when planning learning experiences, selecting assessment instruments, or considering whether any reasonable adjustments may be required. Further advice can be found on our website [www.sqa.org.uk/assessmentarrangements](http://www.sqa.org.uk/assessmentarrangements)



## National Unit Specification: general information

**UNIT** Automotive Skills: The Vehicle Modification Project  
(SCQF level 4)

**CODE** F8N0 10

### SUMMARY

This Unit is a mandatory Unit of the Skills for Work National 4 Automotive Skills Course and can also be taken as a free-standing Unit.

The emphasis of this Unit is on the consolidation of previous practical skills developed. Candidates will select a modification project to carry out on a vehicle. This will enable candidates to put into practice and further develop some of the basic handskills and problem solving abilities that an Automotive Technician requires. Candidates will gain experience and build confidence as they carry out the tasks required to complete the selected modification.

Candidates will have the opportunity to review and develop their own employability skills throughout the Unit.

This Unit is suitable for candidates who have already developed basic automotive technical skills and knowledge.

### OUTCOMES

- 1 Produce a plan to modify a vehicle or vehicle system.
- 2 Complete, test and evaluate the modification.
- 3 Review and evaluate own employability skills profile.

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#### Administrative Information

**Superclass:** XS

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## National Unit Specification: general information (cont)

**UNIT** Automotive: The Vehicle Modification Project

### RECOMMENDED ENTRY

While entry is at the discretion of the centre, it would be advantageous for candidates to have attained or be working towards one or more of the following Skills for Work units, or equivalent:

F8MW 10      *Automotive Skills: The Garage*  
F8MY 10      *Automotive Skills: The Technician*  
F8MX 10      *Automotive Skills: The Car*

### CREDIT VALUE

1 credit at SCQF level 4 (6 SCQF credit points at SCQF level 4\*)

*\*SCQF credit points are used to allocate credit to qualifications in the Scottish Credit and Qualifications Framework (SCQF). Each qualification in the Framework is allocated a number of SCQF credit points at an SCQF level. There are 12 SCQF levels, ranging from Access 1 to Doctorates.*

### CORE SKILLS

Opportunities to develop aspects of Core Skills are highlighted in the Support Notes of this Unit Specification.

There is no automatic certification of Core Skills or Core Skill components in this Unit.

## **National Unit Specification: statement of standards**

### **UNIT Automotive Skills: The Vehicle Modification Project (SCQF level 4)**

Acceptable performance in this Unit will be the satisfactory achievement of the standards set out in this part of the Unit Specification. All sections of the statement of standards are mandatory and cannot be altered without reference to SQA.

#### **OUTCOME 1**

Produce a plan to modify a vehicle or vehicle system.

##### **Performance Criteria**

- (a) Identify an appropriate range of modifications.
- (b) Select an appropriate modification.
- (c) Identify skills and resources required to carry out the modification.
- (d) Produce a plan which clearly shows the steps to carry out the modification.
- (e) Obtain teacher/lecturer feedback and approval for the plan.

#### **OUTCOME 2**

Complete, test and evaluate the modification.

##### **Performance Criteria**

- (a) Prepare all the necessary resources correctly.
- (b) Use the appropriate resources effectively.
- (c) Present a completed modification.
- (d) Carry out an appropriate functionality test.
- (e) Evaluate the completed modification.
- (f) Comply with safe working practices while carrying out all activities.

#### **OUTCOME 3**

Review and evaluate own employability skills profile.

##### **Performance Criteria**

- (a) Identify own strengths and weaknesses.
- (b) Seek and record feedback from teacher/lecturer on own performance.
- (c) Identify action points for improvement in relation to employability skills.

## **National Unit Specification: statement of standards (cont)**

**UNIT**     Automotive Skills: The Vehicle Modification Project (SCQF level 4)

### **EVIDENCE REQUIREMENTS FOR THIS UNIT**

In this Unit candidates may work individually or as a small group (a maximum of three), depending on the size and complexity of the modification. If the modification is undertaken by a group all candidates must clearly provide the Evidence Requirements.

Performance and product evidence which covers all of the Outcomes and Performance Criteria is required for this Unit.

#### **Outcome 1 — Product evidence**

Candidates will be required to produce in open-book conditions, a plan of the selected modification which must include:

- ◆ identification of the component(s), or system to be modified
- ◆ skills and resources required to carry out the modification
- ◆ the steps taken to complete the modification
- ◆ approval to proceed with the modification
- ◆ a record of work and any research carried out by the individual or group members

The plan will be in a format appropriate to the needs of the candidate.

An assessor checklist must be used to support product evidence.

#### **Outcome 2 — Performance evidence**

Candidates will be required to demonstrate through practical activity on one occasion that they are able to:

- ◆ prepare equipment and materials to carry out the modification
- ◆ use tools and equipment correctly
- ◆ present a completed modification
- ◆ test the functionality of the modification
- ◆ evaluate the success of the modification
- ◆ comply with safe working practices when carrying out all activities

An assessor observation checklist and a completed candidate report on the modification carried out must be used to provide evidence of performance. The report produced must evaluate the success of the modification.



## **National Unit Specification: statement of standards**

**UNIT**     Automotive Skills: The Vehicle Modification Project (SCQF level 4)

### **Outcome 3 — Candidate review**

Candidates must identify their own strengths and weaknesses using a self evaluation review record and obtain feedback from their teacher/lecturer in relation to a specified list of employability skills. Candidates must also identify action points for improvement.

A signed record of the review must be retained by the assessor as assessment evidence.

The National Assessment Bank pack provided for this Unit illustrates the standard that should be applied. It includes a modification brief and assessor checklist for Outcome 1, assessor observation checklist for Outcome 2 and a candidate self evaluation review record for Outcome 3. If a centre wishes to design its own assessments for this Unit, they should be of a comparable standard.

## National Unit Specification: support notes

### UNIT Automotive Skills: The Vehicle Modification Project (SCQF level 4)

This part of the Unit Specification is offered as guidance. The support notes are not mandatory.

While the exact time allocated to this Unit is at the discretion of the centre, the notional design length is 40 hours.

#### **GUIDANCE ON THE CONTENT AND CONTEXT FOR THIS UNIT**

This Unit is designed to enable candidates to put into practice and develop some of the basic handskills and problem solving abilities that an Automotive Technician requires.

Candidates will gain experience and build confidence as they carry out the tasks required to complete the selected project.

During the process of planning and carrying out the practical aspects of the selected project, candidates will become accustomed to working individually and with others. Through sharing resources they will also become aware of the need to work cooperatively.

Candidates will learn good working practice and should quality check their own work when completed. They will also learn and become accustomed to using the correct terminology for components, tools and equipment.

The context for learning must include the requirement for appropriate Personal Protective Equipment (PPE), appropriate conduct, and correct care of tools, chemicals and equipment.

Acceptable examples of modifications could include:

- ◆ Interior lighting system
- ◆ Spoiler with brake light
- ◆ Distance sensor
- ◆ Wiring an auxiliary lighting system
- ◆ Installing an alarm system
- ◆ Lowering suspension
- ◆ Additional air intakes/venting
- ◆ Design and make a wheel trim
- ◆ Installing/upgrading a sound system
- ◆ Rain sensor system
- ◆ Decal design and application

This list of example modifications is not exhaustive. The modification must be approved by the teacher/lecturer prior to commencing work.

## National Unit Specification: support notes

### UNIT Automotive Skills: The Vehicle Modification Project (SCQF level 4)

The following list of employability skills and behaviours have been identified by employers in the automotive industry and are an important part of the content of this Unit.

- ◆ positive attitude towards learning:\*
- showing commitment and flexibility
- showing an interest in the automotive industry
- showing a willingness to learn
- ◆ good timekeeping and attendance\*
- ◆ following instructions
- ◆ awareness of the implications of health and safety requirements\*
- ◆ importance of appropriate dress code\*
- ◆ good communication skills\*
- ◆ preparing and planning for work\*
- ◆ awareness of the monetary value of the vehicles being worked on and their importance to the customer
- ◆ ability to work in a team
- ◆ flexible approach to solving problems\*
- ◆ adaptability to change
- ◆ understanding the workplace, the job roles and the career paths within it
- ◆ awareness of environmental issues affecting the automotive industry\*

Assessment activity for this Unit will clearly identify a number of employability skills (marked with an asterisk\*). However there are opportunities throughout this Unit to develop the remaining skills.

### **GUIDANCE ON LEARNING AND TEACHING APPROACHES FOR THIS UNIT**

It is important that candidates are provided with advice and guidance on what is expected of them when they are undertaking this Unit. Candidates at this level should get support and feedback from the teacher/lecturer on their progress throughout.

The initial approach for this Outcome will be centred on group discussion during the identification and selection of the modification.

The most likely approach is that more than one group will work on one vehicle therefore resources will need to be shared and groups will need to work co-operatively.

When the modification is selected the candidate must produce a plan to show the steps that need to be taken to achieve completion of the selected modification. An average of 15% of the allocated Unit time should be devoted to the planning stage.

If the centre allocated a budget to each modification project candidates could then work to ensure that all costs were kept within the budget allocated.

During the search for information candidates should be encouraged to record the different sources of information used, eg internet, magazines, specialist books.

## **National Unit Specification: support notes**

### **UNIT Automotive Skills: The Vehicle Modification Project (SCQF level 4)**

Outcome 2 is the focus of the Unit where candidates will be using their previously developed skills to undertake the modification project. The teacher /lecturer role will therefore be offering support and guidance if/when necessary.

Candidates will use analytical, problem solving and practical/experiential skills to carry out the modification.

#### **OPPORTUNITIES FOR CORE SKILL DEVELOPMENT**

In this Unit candidates will be planning how to carry out a modification and reviewing their progress. Candidates will be encouraged to take responsibility for their own performance and this will give the opportunity to develop aspects of the Core Skill of *Problem Solving*.

Candidates will make use of a number of investigative processes and research methods which will give the opportunity to develop aspects of the Core Skill of *Information and Communication Technology*.

Candidates may undertake the modification as a team. If so, this will give the opportunity to develop aspects of the Core Skill of *Working with Others*.

#### **GUIDANCE ON APPROACHES TO ASSESSMENT FOR THIS UNIT**

The Evidence Requirements are fully expressed in the mandatory section of this Unit Specification.

The evidence required should be gathered in sequence from Outcome 1 to Outcome 3.

If candidates are working as pair or team assessors must satisfy themselves that each candidate is competent in each aspect of the exercise.

Outcomes 1 a) and b) could be assessed by direct observation of the candidate discussing which system or component to select for the project.

Assessment of the functionality test in Outcome 2 will vary depending on the modification carried out but a generic checklist would be the simplest way to assess this.

#### **Outcome 3**

When delivering this Unit as part of the National 4 Automotive Skills Course, evidence for Outcome 3 of this Unit will give candidates greater opportunity to review their employability skills profile across the duration of the Course.

## **National Unit Specification: support notes**

**UNIT**      Automotive Skills: The Vehicle Modification Project (SCQF level 4)

### **Opportunities for the use of e-assessment**

E-assessment may be appropriate for some assessments in this Unit. By e-assessment we mean assessment which is supported by information and communications technology (ICT), such as e-testing or the use of e-portfolios or e-checklists. Centres which wish to use e-assessment must ensure that the national standard is applied to all candidate evidence and that conditions of assessment as specified in the Evidence Requirements are met, regardless of the mode of gathering evidence. Further advice is available in *SQA Guidelines on Online Assessment for Further Education (AA1641, March 2003)*, *SQA Guidelines on e-assessment for Schools (BD2625, June 2005)*.

The National Assessment Bank pack provided for this Unit illustrates the standard that should be applied. It includes a modification brief and assessor checklist for Outcome 1, assessor observation checklist for Outcome 2 and a candidate self evaluation review record for Outcome 3. If a centre wishes to design its own assessments for this Unit, they should be of a comparable standard.

### **DISABLED CANDIDATES AND/OR THOSE WITH ADDITIONAL SUPPORT NEEDS**

The additional support needs of individual candidates should be taken into account when planning learning experiences, selecting assessment instruments, or considering whether any reasonable adjustments may be required. Further advice can be found on our website [www.sqa.org.uk/assessmentarrangements](http://www.sqa.org.uk/assessmentarrangements)

## History of changes to Units

Version	Description of change	Date
03	Units updated to refer to National 4 Course.	August 2013