



Qualifications and
Curriculum Authority



Qualifications
& Credit
Framework

Developing units and qualifications for occupational competence in the Qualifications and Credit Framework

*Additional guidance to support sector skills councils and standards setting
bodies*

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Purpose

Used along with existing guidance, this document can help you develop units of assessment and rules of combination for the Qualifications and Credit Framework (QCF). It also complements the following guidance that is already available:

- *Support pack for the Qualifications and Credit Framework, version 3 (QCA/08/3989)*
- *Operating rules for using the term 'NVQ' in a QCF qualification title (Ofqual/083160)* (please note further development of this guidance may be published as a result of ongoing consideration of National Vocational Qualifications and the QCF)

These documents can be found on QCA's or Ofqual's websites at www.qca.org.uk/qcf or www.ofqual.gov.uk/qcf.

Annex 1 provides some examples of current QCF qualifications designed to reflect occupational competence. Annex 2 provides some practical examples of translating national occupational standards (NOS) into units for the QCF. We plan to give further examples as part of the QCF Readiness project.

This guidance is primarily for sector skills councils (SSCs) and standards setting bodies (SSBs) in response to requests for further information. However, to develop fit-for-purpose QCF products, it remains essential that SSCs, SSBs and awarding organisations work collaboratively, as detailed later within this document.

Scope

This guidance relates specifically to units of assessment and rules of combination for the QCF designed to reflect occupational competence. It does not extend to the development of units and/or rules of combination that have a looser relationship to NOS and a different purpose, although many of the same issues and requirements apply.

Development and submission to the QCF

The QCF regulatory arrangements require that organisations must be recognised by the qualifications regulators to:

- develop and submit units of assessment for the QCF
- develop rules of combination for qualifications in the QCF
- operate as awarding organisations.

If an SSC or SSB is not recognised to carry out one or more of those functions, then a recognised organisation(s) must do so instead. This does not prevent an SSC or SSB from working with a recognised organisation to develop units and/or rules of combination. The recognised organisation(s) will be responsible for submitting the units and/or rules of combination to the QCF, and will be ultimately responsible for ensuring the quality of the products.

If an SSC or SSB is recognised to carry out one or more of those functions, it is vital that they work closely with awarding organisations to develop products of good quality that meet the QCF regulatory arrangements. Section 3 of the regulatory arrangements sets out the requirements for organisations developing and submitting units to form part of accredited qualifications.

Please note that you can change the ownership of units from a particular awarding organisation to an SSC or SSB once it has been recognised to operate in the QCF by contacting the qualifications regulators.

Converting NOS into QCF units

NOS are separate and distinct products to units of assessment for the QCF. NOS have many different purposes other than for units of assessment and qualifications, and the nature and specifications of the QCF break the direct one-to-one link between NOS and units that applied to National Vocational Qualifications (NVQs) in the National Qualifications Framework (NQF).

In most cases it is not possible, or appropriate, to simply 'cut and paste' NOS into QCF units to create learning outcomes and assessment criteria, as NOS often do not describe the 'demonstrable, observable and measurable' criteria required for assessing achievement (*Guidelines for writing credit-based units of assessment for the Qualifications and Credit Framework* (QCA/08/3873), section 3.2).

The guidance documents referenced earlier contain specific details on developing QCF units and, in particular, determining credit value for units. The details in these documents apply to any units designated for the QCF, regardless of their origin.

Each unit of assessment must meet the requirements of the QCF unit pro-forma and must include:

- a title
- learning outcomes

- assessment criteria
- a single level
- a credit value.

A QCF unit specification may also set out any additional assessment requirements if relevant (see section 6 for more details).

The QCF requires this standardised format so that credit for achieving units can be accumulated and transferred and so that the same units can appear in more than one qualification. There can be no variations to these minimum requirements.

Key considerations to take into account when developing QCF units to reflect occupational competence include the following.

- Is the learning and assessment burden of the unit appropriate?
 - Do all the assessment criteria need to be criteria, or could some of them be captured instead within assessor guidance materials?
 - Does the learner need to demonstrate everything included within the original NOS, in every context?
 - What aspects might be covered within delivery guidance rather than through assessment?
 - Could areas of common content across units be drawn out into separate stand-alone units, for example health and safety, or complying with legislation?
- Is the content coherent at an individual unit and qualification level?
 - Is there significant repetition in content and/or assessment across a range of units within a qualification?
 - Does the unit title reflect the focus of the learning outcomes?
 - Are there a range of different learning outcomes that don't necessarily need to sit within the same unit, that is, could they be grouped differently?
- Do the learning outcomes and assessment criteria support demonstration of competence?

- Do learners have to demonstrate or apply?

The exact approach to translate NOS into learning outcomes and assessment criteria will vary across the different organisations operating in the QCF.

Awarding organisations, as well as assessors and practitioners who are knowledgeable about a particular sector, should be involved in the process of assigning credit and level to a particular unit, even if an SSC or SSB submits the unit to the QCF unit databank.

Note that all QCF units developed by contracts with the UK Commissioner for Employment and Skills (UKCES) must be designated as shared among awarding organisations working in the sector.

When translating 'imported NOS' (those owned by another SSC or SSB) into a unit designed to reflect occupational competence, any existing QCF unit based on the NOS should be considered. Owners of large numbers of regularly imported NOS reflecting occupational competence are encouraged to consider publishing regularly updated lists of related QCF units. If a QCF unit does not yet exist relating to the NOS, the owner of any imported NOS should be consulted in order to agree how to proceed, for example to agree which organisation will develop the QCF unit(s), and to what timescale.

Developing rules of combination

When a recognised SSC or SSB, or one working with a recognised body, wishes to develop a rule of combination for a qualification reflecting occupational competence, that SSC or SSB must ensure it meets the QCF regulatory arrangements.

Rules of combination should include details of all:

- mandatory units
- optional units
- other features, as required/desired, to be adopted from the standard rule of combination format (such as exemptions, equivalences or barred combinations).

The guidance documents referenced in section 1 contain further details on how to develop rules of combination. Some key considerations that should be taken into account when developing rules of combination for competence-based qualifications include the following.

- If more than one rule of combination is produced at the same level and based on a particular set of NOS, might these qualifications instead be represented by a single rule of combination with endorsed pathways through it?
- How does the rule of combination relate to other qualifications in the sector, and does it allow progression and opportunities for credit transfer across and between sector qualifications?

The nature of the relationship between the NOS on which the qualification is based and the units of assessment and rules of combination for the qualification determines the purpose of the qualification within the QCF. A list of purposes that apply within the QCF can be found in the QCF regulatory arrangements (Ofqual/08/3726), section 6.2c, and *Identifying purposes for qualifications in the Qualifications and Credit Framework* (Ofqual/09/3985).

If the resulting qualification has been designed to reflect occupational competence, then its purpose within the QCF should be designated as:

D1: Confirm competence in an occupational role to the standards required.

Assessment at a multiple unit or qualification level

The guidance documents in section 1 contain further details on how to develop assessment arrangements at a qualification level. This section offers some key areas for consideration when developing assessment arrangements for competence-based qualifications.

- Does the SSC/SSB wish to set out any specific assessment requirements/strategies (for example 'All assessors must hold an A1 or equivalent qualification') that apply to some or all units included within the rule of combination?
- If so, then these requirements can be put together into a single document of assessment requirements that must be clear, published and in the public domain. You can then include a cross reference or hyperlink to the document in the 'Additional assessment requirements' section of all relevant units. Note that SSCs and SSBs would usually only do this for qualifications designed to reflect occupational competence or licence to practice requirements.
- Many existing assessment strategies for NVQs in the NQF contain, in addition to assessment requirements, expectations and guidance that do not need to be set down as assessment requirements. In this case, when necessary, the expectations and guidance should be specified within an external 'Centre and candidate guidance'

document. These documents should be separate from any the assessment requirements document and should be cross-referenced or hyperlinked within the relevant QCF unit(s).

- When adding additional assessment requirements for competence-based qualifications, it would be helpful to restrict any requirements to a minimum, particularly in light of the UKCES report *Simplification of skills in England: Expert advice to government on simplification of the English post-compulsory skills system for employers* (October 2008), which states:

The current NVQ Code of Practice is simply not fit for purpose, and imposes disproportionate evidence recording and retention requirements, many of which are no longer justified.

Annex 3 provides examples of suggested areas that may be covered in additional specific assessment requirements.

What support and advice is available?

QCA will provide support and advice in the development of units of assessment and qualifications for the QCF as appropriate to their role in the coordination of vocational qualification reform project B – QCF Readiness. The Alliance of Sector Skills Councils is leading on SSC and SSB readiness within project B, with the Federation of Awarding Bodies and the Joint Council for Qualifications taking on a similar role for awarding organisations. Any support and advice from QCA to SSCs, SSBs and awarding organisations will therefore be provided in line with the wishes of our key delivery partners.

Annex 1: Existing QCF qualifications that reflect occupational competence

A number of current qualifications in the QCF are designed to reflect occupational competence. Some of these are based quite closely on the old NVQs in the NQF, whereas others have been fundamentally redesigned as part of the transition from the NQF to the QCF. A mixture of both are summarised below.

E-skills UK and ITQ for IT users

The Sector Skills Council for Business and Information Technology, e-skills UK, took their NVQs that were based on quite a radical set of NOS and created the ITQ for IT users, a qualification that demonstrates staff competence in the use of IT in the workplace at levels 1, 2 and 3 in the QCF. E-skills UK followed a flexible approach that draws explicitly on the concept of credit accumulation and transfer. This allows individuals to transfer credit gained from what used to be called vocationally-related qualifications towards the ITQ requirements. The related accredited QCF qualifications are the:

- level 1 and level 2 Certificate for IT users (ITQ)
- level 1, level 2 and level 3 Diploma for IT users (ITQ).

In September 2006 the e-skills UK commenced its ITQ project for the QCF. This project developed units, assigned level and credit, designed rules of combination and drew up guidance for assessors. E-skills UK formed a development working group with the awarding organisation partners. Each awarding organisation nominated an IT user qualifications expert to sit on the group. For the most part, these experts were established external verifiers. They held 10 full-day meetings between September 2006 and January 2007. In addition, they spent 10 further days of dedicated resource to write the bulk of the units.

The group dubbed the process of writing the units 'frameworkising', as the units were all taken from existing NOS. The group spent the first few meetings grappling with the unit template and the guidelines and attempting to write learning outcomes to ensure they adequately and fairly represented the intentions of the NOS. They reached agreement on things like the general approach, style of writing, use of certain words and expressions, among others. Once they established the methodology, individual members of the group were given units to frameworkise by themselves. The units then went through two review

processes – one with the development working group and one internal to e-skills UK – to ensure consistency.

When considering the credit values in conjunction with rules of combination and constructing qualifications, it became clear to the group that it would be necessary to normalise the credit values in some places to ensure the qualification would be understandable and credit was consistent across the qualification.

The development working group found it very easy to establish rules of combination. All members had experience of the concept through the existing qualification structure and rules. They found it very useful to involve all ITQ awarding organisations in the process – in working systematically through the issues, they all agreed on a common position. The QCF enabled the creation of a 'spiky profile' of units across levels, using rules of combination to create a qualification closely matching a job profile. At the same time, the system ensured qualifications were of a consistent size, irrespective of unit choice.

They based the rules of combination for the new ITQ on the existing rules for the old ITQ in the NQF. Taking into account the QCF rules of combination guidelines, the development working group produced an ITQ reasonably close to the one in the NQF. They began establishing the rules of combination by considering the mandatory units of the qualification. ITQ has only one mandatory unit at each level. This then established the first set of rules for the optional units, that is, how many credits could be specified at the level of the qualification and how many could be taken at any other level.

E-skills UK owns the units. The awarding organisation partners – British Computer Society (BCS), City & Guilds, EDI and OCR – started by submitting their level 1 and level 2 qualifications via the web-based accreditation system in April/May 2007, and all three levels from all the awarding organisations were accredited by September 2007.

Skillsmart Retail and retail qualifications

The Sector Skills Council for Retail, Skillsmart Retail, has turned a series of NOS into QCF units and associated qualifications. They feel they now have qualifications that far better suit their needs than the NVQs that preceded them, although the qualifications still bear a close resemblance to the existing NVQs (but don't meet all the requirements of the NQF code of practice). The accredited QCF qualifications designed to reflect occupational competence include:

- level 1 and level 2 Award, Certificate and Diploma in retail skills
- level 3 Certificate and Diploma in retail (management)
- level 3 Certificate and Diploma in retail (visual merchandising)
- level 3 Certificate and Diploma in retail (sales professional).

The QCF units were developed by Skillsmart Retail in collaboration with the awarding organisation partners – City & Guilds, EDI and OCR. They built the process they used to develop the units for the QCF on the processes Skillsmart Retail used previously to develop the existing NQF qualifications in retail. The QCF units are directly based on the NOS for retail. The group developing the units included individuals with expertise in the sector, NOS development, learning and development, verification of assessment decisions and qualification development.

They began working on the qualifications in September 2006 (as part of the QCF tests and trials) and, using the QCF guidance, converted the current NOS units into the QCF unit template. They used sector specialists from all participating awarding organisations to develop the units, which resulted in fit-for-purpose units that reflect current industry needs and requirements.

Subject expert external verifiers representing the awarding organisations then worked together to determine the credit values. Most of these external verifiers were retail chief verifiers. The majority of participants worked as consultants and had knowledge of training pedagogies in retail, while others were employed as store trainers within the retail industry.

They assigned credit values after developing the units based on consensus between the sector experts. Once the experts determined the credit value, the awarding organisations, Skillsmart Retail and the group of experts met to moderate the results and ensure that the weighting seemed appropriate across the units and levels.

Project management by Skillsmart Retail enabled friendly, detailed discussions and agreement for the proposed qualifications. They all reached agreement amicably on the levels, credit values and make-up of the QCF qualifications.

The awarding organisations started to input the qualification details via the web-based accreditation system in April/May 2007. Inputting the QCF units accurately and ensuring that

the rules of combinations were consistent across awarding organisations took longer than expected, but all the qualifications were accredited by October 2007. The new qualifications provide a flexible approach, which allows candidates to achieve units that reflect their job role, and also allows for matrix progression of level and size.

City & Guilds, EDI and OCR currently offer these qualifications; however, it is expected that other awarding organisations in the retail sector will shortly submit the same qualifications.

City & Guilds, EDI and OCR initially owned the units that make up these qualifications as, at the time of submission, Skillsmart Retail was not recognised as a unit submitting body. The qualifications regulators have now recognised them in this role, and the ownership of the units within these qualifications has been changed to Skillsmart Retail, except for the imported units, which will remain with the awarding organisations until the NOS owners become recognised as unit submitting bodies.

Cogent and qualifications for the process industries

Cogent – the Sector Skills Council for Chemicals, Pharmaceuticals, Nuclear, Oil & Gas, Petroleum & Polymers – took an interesting and holistic approach to redeveloping their qualifications for the QCF. They combined units of competence with other units focusing on knowledge and understanding. The result is a genuine transformation of the qualification offer in the sector. Qualifications now accredited to the QCF build directly and explicitly upon existing NOS (used for NVQs in the NQF). They adopt an assessment approach wholly compatible with the sector's preferred assessment strategy for qualifications reflecting occupational competence. These qualifications include:

- level 2 Award in chemical and pharmaceutical based process support
- level 2 Certificate in chemical and pharmaceutical based process operations
- level 3 Certificate in process and manufacturing improvement for chemical, pharmaceutical and petro-chemical operations
- level 3 Certificate in project management for chemical, pharmaceutical and petro-chemical operations.

Cogent has been working on the development of its 'Gold Standard', a national framework for continuous professional development that sets out the skills required for world class performance in key job roles in the process industries. It offers quality assured, bite-sized

training programmes that are delivered flexibly to meet the needs of individuals and businesses. These new qualifications match the way training is delivered in the sector and provide a more flexible way to build a portfolio of accredited skills. Employers within the Cogent sector footprint have strongly indicated that they like this bite-sized learning approach.

Cogent worked very closely with awarding organisation PAA\Q-SET and QCA as part of the QCF tests and trials on the development of the units of assessment that make up these qualifications. Cogent decided to split the knowledge and performance requirements of the NOS into separate units of assessment to allow more flexibility. Skills and knowledge components can be delivered/assessed together in a competence type model, or the knowledge can be delivered/assessed electronically or offsite by a different provider.

The qualifications in the QCF build directly and explicitly upon NOS and adopt an approach to assessment that is compatible with the assessment strategy used for their existing NQF qualifications. Cogent was assisted in assigning appropriate credit values for units and used external verifiers to develop appropriate units.

Cogent says it has received positive feedback from current external and internal verifiers, who believe that the units of assessment raise the status of the underpinning knowledge to a more appropriate level, and will provide more flexibility in how the units are achieved.

These qualifications are currently offered by PAA\Q-SET.

The Institute of the Motor Industry and automotive skills

The Sector Skills Council for the Automotive Retail Industry – the Institute of the Motor Industry (IMI) – used the QCF tests and trial project to reform qualifications in the automotive sector. IMI had separate NVQs and vocationally related qualifications (VRQs) based on the same sets of NOS within the level 2 Apprenticeship in vehicle maintenance and repair (light vehicle). They used these existing NOS to develop and apply subsequent credit ratings to new units. A key objective of the trial was to group the new units into one unique qualification designed to help candidates acquire technical knowledge and skills and demonstrate occupational competence. IMI intended to use the new units to create a qualification that helped break down the barrier between NVQs and VRQs.

The qualifications cover some of the main activities within the motor industry and relate to technicians working on cars, trucks and motorcycles in all types of garages, dealerships and

maintenance depots. As well as servicing and repairing vehicles, activities covered include valeting vehicles, inspecting vehicles and dealing with auto electrical systems.

In March 2007, the two awarding organisations – City & Guilds and IMI Awards Limited – met for the first time to discuss this project. At the meeting the awarding organisation representatives were shown the *Support pack for the Qualifications and Credit Framework tests and trials*, version 2 (QCA/07/3412), including the guidelines for writing units of assessment. Consultation took place during unit development, and in August 2007 they held another meeting to discuss the unit development work undertaken.

Getting all the awarding organisations together was more difficult than expected, and they jointly decided to employ a consultant to develop the new units.

The qualification developed for the QCF is the level 2 Diploma in automotive maintenance and repair, which was first submitted on the web-based accreditation system in November 2007 and accredited in December 2007.

All of the units within the qualification are owned by City & Guilds (but marked as restricted units with IMI Awards as an organisation able to use the units), except one generic health and safety unit first submitted as a shared unit by OCR. City & Guilds had to enter the units into the QCF unit databank before IMI Awards could start to develop their qualification using the same units.

Skillfast UK and fashion and textiles qualifications

Skillfast UK, the Sector Skills Council for Fashion and Textiles, developed two qualifications for the QCF to replace the existing level 2 and level 3 NVQs. These are work-based qualifications that assess the skills and knowledge people need to perform their job role effectively. The qualifications are based on NOS, which define what employees or potential employees must be able to do and know, how well they must do these things, and the circumstances in which they have to use the skills or carry out the activities. These qualifications also meet the *Operating rules for using the term 'NVQ' in a QCF qualification title* (Ofqual/08/3160) – and are the only currently accredited example of qualifications that do this.

The two qualifications are the:

- level 2 Certificate in manufacturing sewn products (NVQ) (QCF)

- level 3 Certificate in apparel manufacturing technology (NVQ) (QCF)

These qualifications are offered by awarding organisation ABC Awards.

Energy and Utility Skills and water industry qualifications

Energy and Utility Skills worked on the development of a number of qualifications in the water industry. These qualifications comprise units designed to reflect occupational competence. Accredited qualification titles include the:

- level 2 Certificate for water sector competent operator – sludge complex works
- level 2 Diploma for water sector competent operator – waste water simple works.

City & Guilds offers these qualifications.

Working across SSCs and SSBs

The level 2 and level 3 Award, Certificate and Diploma in business skills are examples of qualifications where the units within the qualification reflect occupational competence. They still bear a close resemblance to the existing NVQs and are offered by City & Guilds, EDI and OCR. These qualifications are of particular interest because the NOS that were used as the basis for them come from the following SSC and SSBs:

- Council for Administration (CfA)
- Institute of Customer Service (ICS)
- Management Standards Centre (MSC)
- Marketing and Sales Standards Setting Body (MSSSB)
- ENTO.

Annex 2: Using NOS to develop a QCF Unit

The guidance in this section shows how a QCF unit has been developed from NOS in the context of vehicle maintenance. The boxed commentary identifies what has been used and where other information provided in the NOS can be made available for delivery purposes. In illustrating the relationship, the boxed commentary provides a guide for considering the construction of a QCF unit based on NOS. This is intended for use as a guide only and is provided for illustration purposes.

The NOS unit: Unit MR01 – Carry out routine vehicle maintenance

Unit overview

This unit is about conducting routine examination, adjustment and replacement activities as part of the periodic servicing of vehicles.

Key words and phrases

The following information provides the content and context of the NOS and delivery – it is therefore not necessary to include this within the QCF unit. This information would be provided in the guidance supplied to the organisation delivering the unit for the use of tutors. It provides key information needed for the content and context of delivery to prepare candidates for assessment.

- Agreed timescales: Examples include manufacturer's recommended work times, job times set by your company or a job time agreed with a specific customer.
- Adjustments: Examples include adjustments to clearances, gaps, settings, alignment pressures, tensions, speeds and levels, and adjustments to valves, ignition, fuel and emissions, brakes, transmission, lights, tyres, steering and body fittings.
- Commercial vehicles: These are medium and large goods vehicles of 3500kgs gross vehicle mass (GVM) and above.
- Components: Examples include filters, drive belts, wiper blades, brake linings and pads, lubricants and fluids.
- Conformity: Examples include conformity to manufacturer's specifications, UK and European legal requirements where applicable.
- Systems testing equipment: Examples include test instruments, emission test equipment, wheel alignment equipment, tyre tread depth gauges.

- Maintenance records: Examples include records of vehicle inspection, manufacturers', fleet, company or customer job cards.
- Major service: As defined by manufacturers' specifications appropriate to the vehicle being working upon.
- Vehicles: These can be any of the following – light vehicles, commercial vehicles and motorcycles.
- Routine vehicle maintenance: Examples include conducting scheduled examinations, adjustments, replacements and replenishment of, or to, components and systems in accordance with manufacturer's instructions for the period and/or mileage interval.
- Vehicle technical data: Examples include hardcopy manuals, data on computer and data obtained from on-board diagnostic displays.

Scope of this unit

This section provides critical information for the delivery of the standard – it sets out the parameters for delivery by providing clear definitions of what is required in relation to the scope to be covered. This information is not required within the QCF unit but will be supplied in the same way as the information in 'Key words and phrases' to ensure delivery covers critical areas of the NOS.

All of the items listed below form part of the NOS.

1. Sources of technical information are:
 - a. vehicle technical data
 - b. schedules of inspection
 - c. regulations.
2. Examination methods are:
 - a. aural
 - b. visual
 - c. functional

- d. measurements.
3. Assessments are for:
- a. malfunction
 - b. damage
 - c. fluid levels
 - d. leaks
 - e. wear
 - f. security
 - g. condition and serviceability
 - h. conformity
 - i. necessity for adjustment(s).

Essential knowledge

This section of the NOS is critical for developing the QCF unit, as it clearly specifies the knowledge, understanding and competencies required of the candidate. This section will translate to the key learning outcomes for the QCF unit. In developing the learning outcomes, the essential elements of this section have been identified and articulated within the learning outcomes of the QCF unit.

You need to understand:

- legislative and organisational requirements and procedures:
 - 1. the manufacturer's and legal requirements relating to routine maintenance activities for vehicle systems and components
 - 2. the legal requirements relating to the vehicle (including road safety requirements)
 - 3. the health and safety legislation and workplace procedures relevant to vehicle maintenance activities and personal and vehicle protection

4. your workplace procedures for:
 - recording vehicle maintenance work and any variations from the original vehicle specification
 - the referral of problems
 - reporting delays to the completion of work
5. the importance of documenting vehicle maintenance information
6. the importance of working to agreed timescales and keeping others informed of progress
7. the relationship between time and costs
8. the importance of reporting anticipated delays to the relevant person(s) promptly
- use of technical information:
 9. how to find, interpret and use sources of technical information for scheduled maintenance activities, including on-board diagnostic displays
 10. the importance of using the correct sources of technical information
 11. the purpose of and how to use identification codes
- Vehicle system operation:
 12. how engines, cooling systems, air supply and exhaust systems, fuel systems and ignition systems operate for the type(s) of vehicle on which you are working
 13. how clutch assemblies, clutch operating systems, manual gear boxes, automatic gear boxes, drivelines and hubs (if appropriate) and final drive assemblies operate for the type of vehicle on which you are working
 14. how suspension systems, steering systems, braking systems, non-electrical body systems, wheels and tyres operate for the type of vehicle on which you are working

15. how batteries, starting systems, charging systems, lighting systems and ancillary equipment operate for the type of vehicle on which you are working
16. the operating specifications and tolerances for the type(s) of vehicles on which you are working
- Routine maintenance requirements:
 17. how to conduct scheduled, routine examination methods and assessments against vehicle specifications to identify damage, corrosion, inadequate fluid levels, leaks, wear, security problems and general condition and serviceability
 18. check and make adjustments to clearances, gaps, settings, alignment, pressures, tension, speeds and levels relevant to the engine area, transmission area, chassis area, electrical area and body (including to valves, ignition, fuel and emissions, brakes, transmission, lights, tyres, steering and body fittings)
 19. how to replenish and replace routine service components and materials, including filters, drive, belts, wiper blades, brake linings and pads, lubricants and fluids
 20. how to recognise cosmetic damage to vehicle components and units outside normal service items
 21. how to identify codes and grades of lubricants
 22. how to work safely avoiding damage to the vehicle and its systems.

The learning outcomes to be used in the QCF unit, identified from the NOS include the following.

- Be able to understand the operation of light vehicle systems and components.
- Be able to understand the legislative and organisational requirements for routine vehicle maintenance.
- Be able to understand the servicing maintenance procedures for routine vehicle maintenance.
- Be able to safely carry out routine vehicle maintenance.

Once these key learning outcomes have been identified, then the assessment criteria draw on the detail within each one to relate the learning outcome to the required criteria.

Performance objectives

The performance objectives set the level at which the qualification candidate must operate. These inform the development of the assessment criteria for the QCF unit; however, they are not replicated in full within the unit. This provides further information to qualification candidates and those delivering the training. It needs to be specified within the support materials pertaining to the unit and qualification provided to support delivery. Some of this may be included within the 'Additional information' section on the unit template.

To be competent you must:

- a. use suitable personal protective equipment and vehicle coverings throughout all vehicle maintenance activities
- b. use suitable sources of technical information to support all your vehicle maintenance activities
- c. use the correct specifications and tolerances for the vehicle when making assessments of system and component performance
- d. where the customer's vehicle falls outside the manufacturer's original specification, record details accurately and use this adapted specification as the basis for your examination and assessment

- e. examine the vehicle's systems and components following:
 - the manufacturer's approved examination methods
 - your workplace procedures
 - health and safety requirements
- f. ensure your examination methods identify accurately any vehicle system and component problems falling outside the servicing schedule specified
- g. carry out adjustments, replacement of vehicle components and replenishment of consumable materials following the manufacturer's current specification for:
 - the particular service interval
 - working methods and procedures
 - use of equipment
 - the tolerances for the vehicle
- h. where system adjustments cannot be made within the manufacturer's specification, record the details accurately and take action that complies with the customer's instructions
- i. work in a way that minimises the risk of damage to the vehicle and its systems
- j. use suitable testing methods to evaluate the performance of all replaced and adjusted components and systems accurately, prior to returning the vehicle to the customer
- k. report any problems or issues relating to the vehicle's condition or conformity to the relevant person(s) promptly
- l. ensure your maintenance records are accurate, complete and passed to the relevant person(s) promptly in the format required
- m. complete all vehicle maintenance activities within the agreed timescale
- n. report any anticipated delays in completion to the relevant persons(s) promptly.

The resulting QCF unit below was developed using the NOS criteria above.

Carry out routine vehicle maintenance

Level 2

Credit 13

(Unit reference number M/501/3491)

Learning outcomes	Assessment criteria
<p>1. Be able to understand the operation of light vehicle systems and components.</p>	<p>1.1 Explain the operation and construction of chassis systems and components. 1.2 Explain the operation and construction of transmission systems and components. 1.3 Explain the operation and construction of electrical and electronic systems and components. 1.4 Explain the operation and construction of engine systems and components. 1.5 Explain the operation and construction of vehicle bodywork and safety systems and components.</p>
<p>2. Be able to understand the legislative and organisational requirements for routine vehicle maintenance.</p>	<p>2.1 Explain the legal requirements relating to vehicle repair and testing. 2.2 Explain health and safety requirements relating to vehicle repair and testing. 2.3 Explain technical information relating to vehicle repair and testing. 2.4 Explain the organisational requirements relating to vehicle repair and testing.</p>

(continued on next page)

<p>3. Be able to understand the servicing and maintenance procedures for routine vehicle maintenance.</p>	<p>3.1 Obtain and understand information from a variety of sources. 3.2 Understand procedures for carrying out vehicle maintenance, inspection and adjustment. 3.3 Understand procedures and documents for recording the findings of routine vehicle maintenance and inspection. 3.4. Explain the need to check the vehicle following routine maintenance.</p>
<p>4. Be able to safely and effectively carry out routine vehicle maintenance.</p>	<p>4.1 Select and use appropriate personal and vehicle protection equipments. 4.2 Locate and use correct technical information for vehicle maintenance and inspection. 4.3 Correctly assess, examine, adjust and replace vehicle systems and components. 4.4 Record and report findings, problems or delays for routine maintenance and inspection. 4.5 Complete routine maintenance and inspection to conform with requirements. 4.6 Dispose of dangerous substances and materials to conform to safety and environmental requirements.</p>

Relevant NOS is unit MR01 – Carry out routine vehicle maintenance.

Annex 3: Common requirements for QCF qualifications using the term 'NVQ' in their title

Sample content

Assessment

Assessment should be carried out according to the NOS for assessors produced by Lifelong Learning UK. Assessment should be done by individuals who meet the occupational competence specification in the assessment requirements developed and published by the appropriate SSC or SSB.

Internal verification

Internal verification should be carried out according to the NOS for internal verifiers produced by Lifelong Learning UK. Internal verification should be done by individuals who meet the occupational competence specification in the assessment requirements developed and published by the appropriate SSC or SSB.

External verification

External verification should be carried out according to the NOS for external verifiers produced by Lifelong Learning UK. External verification should be done by individuals, appointed by the awarding organisation, who meet the occupational competence specification in the assessment requirements developed and published by the appropriate SSC or SSB.