



Institute of Animal Technology

IAT QCF Levels 2 & 3 Guide For Centres

Introduction

The Qualification and Credit Framework (QCF) is the structure for creating and accrediting learning in England, Wales and Northern Ireland (Scotland has its own framework). The QCF is designed to provide learners, learning providers and employers with an inclusive and flexible regulated qualifications framework containing units and qualifications that recognise the widest possible range of quality assured learner achievements. Learner achievements are recognised in the form of credits achieved by successfully completing units.

Further information on the QCF can be found at www.iat.org.uk



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About the QCF

OFQUAL (formally QCA) describe the Qualification & Credit Framework (QCF) in the following way:
"The QCF is the new framework for creating and accrediting qualifications in England, Wales and Northern Ireland. The framework is at the heart of a major reform of the qualifications system designed to make the whole system simpler to understand and use and more inclusive of qualifications from a wider range of providers. The overall intention is to make both the system and the qualifications offered far more relevant to the needs of employers and more flexible and accessible for learners".

Simpler because it:

- introduces common vocabulary across qualifications
- will reduce the amount of duplication within qualifications
- will make it easier to compare how challenging a qualification is and how much work it involves
- enables more approachable and incremental ways of learning and training

The QCF is based on a common vocabulary across qualifications. You will need to be clear about the relevant terms:

- Units
- Rules of Combination
- Level
- Credits

How the QCF works

All QCF qualifications are built up from **units**. A unit is a piece of learning, usually (but not necessarily) smaller than a whole qualification. This makes learning more flexible as people can complete units at a pace and in a way that suits their circumstances and helps providers and employers to create learning programmes that are better suited to individual needs. Each unit is designed so you see what the learning or training involves and what will be achieved by the learner.

A unit is defined as a coherent set of learning outcomes and related assessment criteria with a title, credit value and level. Each unit must:

- be capable of being individually assessed
- be capable of contributing towards at least one qualification

Units can be generic and applicable to a range of contexts and qualifications. Information on delivery, content/coverage, assessment methods or learning modes are not included within the definition of a unit but can be specified within the supporting documentation. This explains the layout of the new syllabus. The supporting information can be found towards the end of the syllabus, after the unit specification. There are no restrictions on the size of units.

QCF units will replace the IAT First Certificate, First Diploma and National Certificate modules. The mapping of QCF units to the modules is shown on page 15.

Rules of Combination (ROC)

All qualifications within the framework have **Rules of Combination**. These specify:

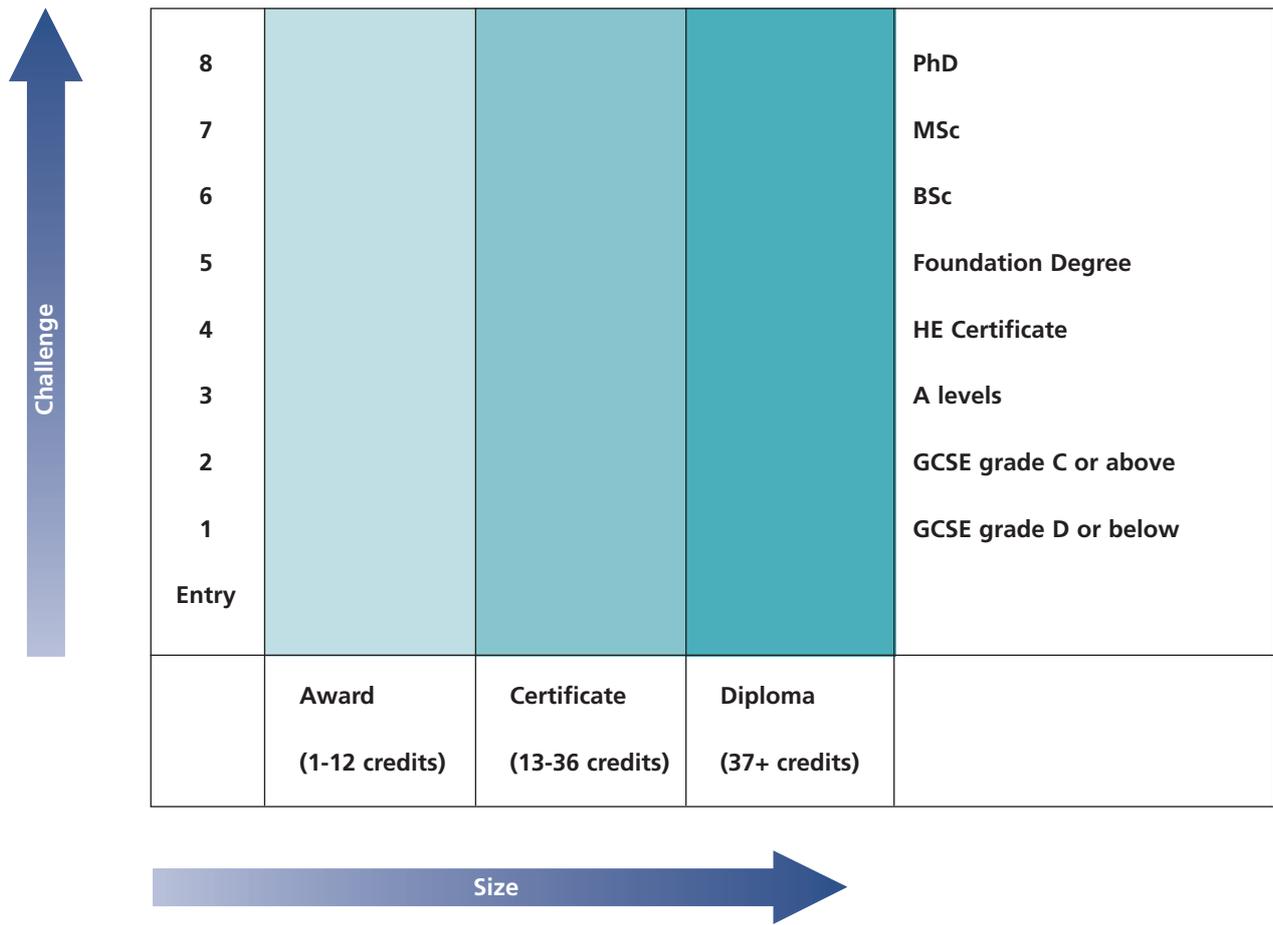
- the credits that need to be achieved
- particular units and how they are combined
- which are optional or mandatory and any barred combinations

The units specify what will be learned and how they will be assessed. The ROC describe how the units are linked into a qualification.

Levels

The level describes the degree of challenge required to complete the unit. Each unit must be assigned a level. The IAT are interested in level 2 (e.g. GCSE grade C or above, First Diploma, NVQ level 2) and level 3 (e.g. A level, National Diploma, NVQ level 3). In addition each unit must have a **credit value**.

The IAT's Educational Policy above level 3 is that learners should then progress into Higher Education.



Credit values

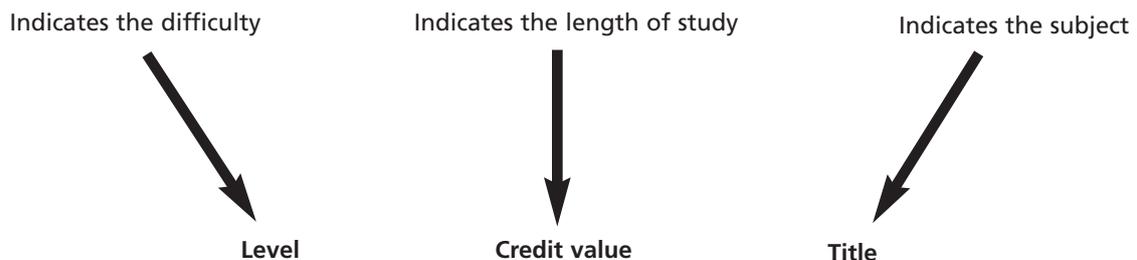
The credit value is the amount of time (in hours) it takes an average learner to complete the unit divided by 10 (i.e. one credit equals ten hours of learning). When the qualification is created the credits from the units are totalled to determine the type of qualification.

- where the total of credits is between 1-12 the qualification is called an **Award**
- where the total of credits is between 13-36 the qualification is called a **Certificate**
- where the total of credits is above 36 the qualification is called a **Diploma**

As each unit has to be assessed separately they do not assume any prior learning. This means that learning that can be applied across units has to be included for each unit where it may be relevant. In other words it may be counted several times within a qualification depending upon how the rules of combination are applied; this could artificially raise the credit value by several multiples in some cases.

Summary of QCF qualifications

This means that all qualifications must follow the same title layout:



Examples
 Level 1 Certificate in Forestry
 Level 3 Diploma in Art

Qualifications, units and credits

Unit title	Level	Credit
IAT Level 2 Diploma in Laboratory Animal Husbandry		
Laboratory animal housing and routines	2	12
The production of laboratory animals	2	8
Laboratory animal nutrition	2	4
Introduction to ethics and laboratory animal facility legislation	2	12
Laboratory animal health and husbandry	2	12
IAT Level 2 Diploma in Laboratory Animal Science and Technology		
Laboratory animal housing and routines	2	12
The production of laboratory animals	2	8
Laboratory animal nutrition	2	4
Introduction to ethics and laboratory animal facility legislation	2	12
Laboratory animal health and husbandry	2	12
Laboratory animal biology	2	8
Animal facility physical science	2	8
Numeracy for animal technologists	2	4
Communication for animal technologists	2	4
Information Communication Technology for animal technologists	2	4
IAT Level 3 Diploma in Laboratory Animal Science and Technology		
Housing and biosecurity barriers in laboratory animal facilities	3	8
Disease control	3	12
Laboratory animal welfare	3	8
Management of breeding colonies	3	12
The use of genetically altered animals in research	3	8
Scientific procedures	3	12
Ethics and laboratory animal facility legislation	3	12
Animal transportation	3	8
Animal cell biology	3	8
Laboratory animal physiology	3	12

Assessment

The table overleaf shows the assessment strategy. It is about finding the right balance of assessment methods and trying to develop animal technologists with a full range of capabilities including a good recall of relevant information for the workplace. The IAT has set a broad assessment method for each unit but Centres should be free to design their own specific assessments within the broad framework.

The main objective of the assessment process for each unit will be to ensure learners have reached the appropriate standard to meet the learning outcomes for the unit. The primary interface with the learner is the Centre assessor whose job it is to assess the evidence presented by the learner. The assessor should provide an audit trail showing how the judgement of the learner's overall achievement has been arrived at.

The Centre's assessment plan, to be agreed with the IAT Moderator, should include a matrix for each qualification showing how each unit is to be assessed against the relevant criteria and which specific piece or pieces of work will be identified in relation to each unit. It should also show how assessment is scheduled into the delivery programme.

In designing the individual assessment tasks and activities, Centres must ensure that:

- the selected assessment task/activity is relevant to the content of the unit
- there are clear instructions explaining what is required from the learners
- learners are clearly told how long the assessment will take (if it is a timed activity) and what reference or other material they may use (if any) to complete it
- the language used in the assessment is free from any bias
- the language and technical terms used are at the appropriate level for the unit

In addition to the specific assessment criteria in each unit, the learner's work must:

- be accurate, current and authentic
- be relevant in depth and breadth
- show the learner's clear grasp of concepts and ability to link theory to practice
- show the learner's ability to communicate clearly in the relevant discipline at the expected level for the qualification

NQF Module	QCF unit	Assessment
Housing and routine care of animals	Laboratory animal housing and routines	Competency or written laboratory assessment
Breeding and feeding	The production of laboratory animals	Unit test
	Laboratory animal nutrition	Competency or written assessment
Ethics, law, euthanasia and health and safety	Introduction to ethics and laboratory animal facility legislation	Unit test
Animal husbandry and health	Laboratory animal husbandry and health	Competency or written assessment
Biological science	Laboratory animal biology	Written assessment
Physical science	Animal facility physical science	Written assessment
ICT, Communication & Numeracy	Numeracy for animal technologists	Written assessment
	Communication for animal technologists	Written assessment
	Information Communication Technology for animal technologists	Written assessment
Management of the animals' environment and disease control	Housing and biosecurity barriers in laboratory animal facilities	Written assessment
	Disease control	Written assessment
	Laboratory animal welfare	Unit test
Scientific procedures	Scientific procedures	Written assessment
Animal breeding and genetic alteration	The use of genetically altered animals	Written assessment
	Management of breeding colonies	Written assessment
Ethics, animal legislation, transport and good laboratory practice	Ethics and laboratory animal facility legislation	Unit test
	Animal transportation	Written assessment
Cell biology	Animal cell biology	Written assessment
Physiology	Laboratory animal physiology	Unit test

Some units may be assessed in one of two ways, written assignment or competency. Centres may choose which methodology best suits their needs or those of the learner. Competency assessment must be carried out by a Registered Animal Technologist who has received appropriate training in assessing learners (for example PGCE, Assessors unit, PTLLS). The assessment of competency must include the collection of sufficient supporting evidence to allow an audit trail of the assessment process. Evidence to support the grading decision could include, but is not limited to, witness testimony, photos, responses to questions. Competency assessment must follow the same Internal Verification and IAT moderation processes as for any other assessment process. Some employers may opt to work with a recognised Centre to assess competency with Centres taking responsibility for the Internal Verification and the assessment processes utilising in-house Registered Animal Technologists.

Grading the IAT units

Each assessment is graded as a Pass, Merit, Distinction. The grade is based on the learning outcomes and grading criteria. To achieve the grade, learners must meet ALL of the learning outcomes and grading criteria associated with the particular grade being awarded.

- To gain a pass, learners must achieve all of the learning outcomes and grading criteria associated with the pass grade.
- To gain a merit, learners must achieve all of the learning outcomes and grading criteria associated with the merit grade.

- To gain a distinction, learners must achieve all of the learning outcomes and grading criteria associated with the distinction grade.

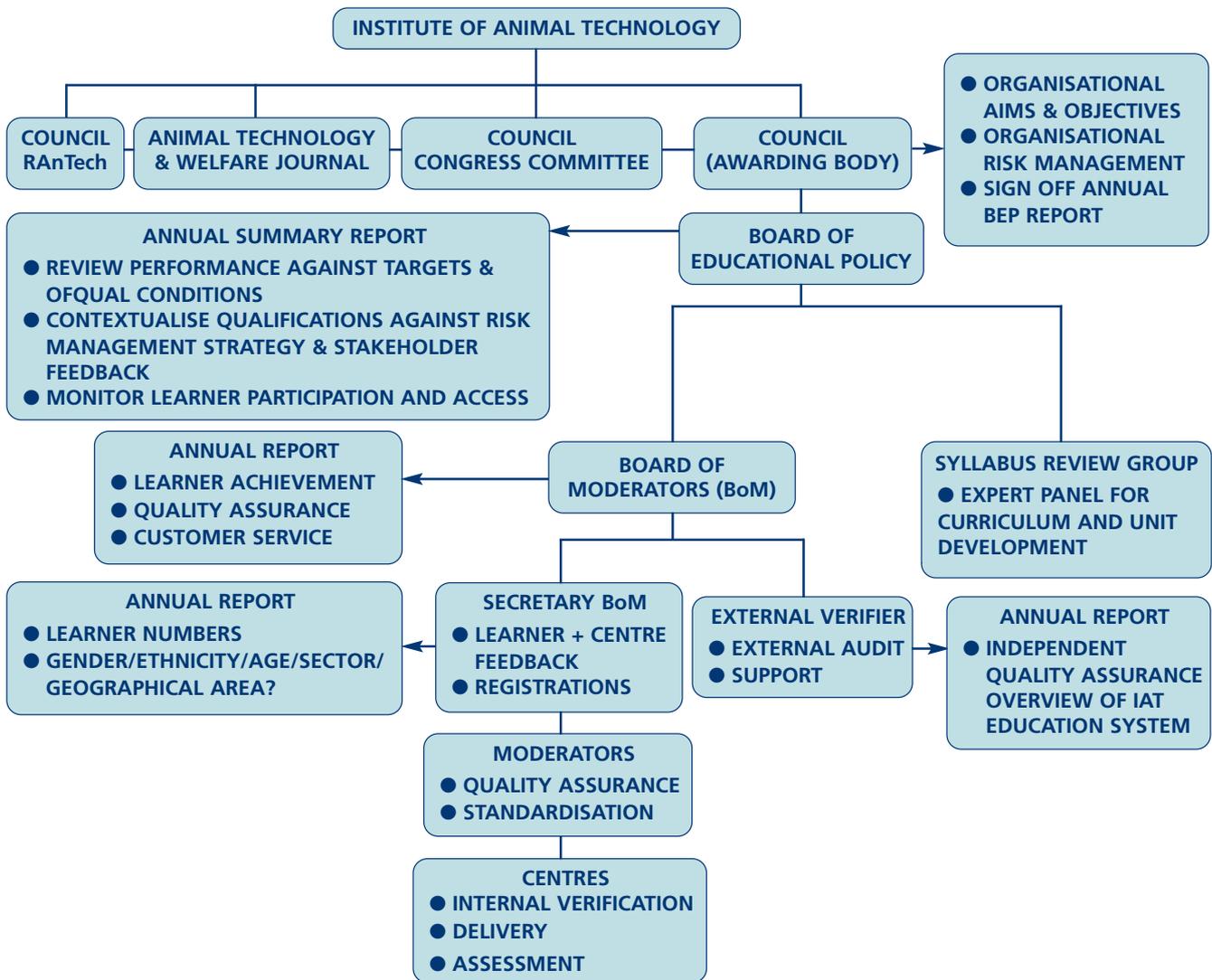
If learners fail to achieve all of the learning outcomes and grading criteria associated with the pass grade, the unit is referred and a learner is given a chance to bring the work up to the appropriate standard.

Learning outcomes and grading criteria may be covered in one or more assessments. However, each unit must be capable of independent assessment even if an assessment covers more than one unit. Where an assessment covers more than one unit, it should be possible for a learner to achieve all of the units independently, so they could achieve some of the units even if they fail to achieve all of the units being assessed in a single assessment.

Grades are designed to encourage learners to develop higher cognitive, communication and psychometric skills in preparation for future learning and career advancement. It is important that learners are aware that they need to meet all of the learning outcomes and grading criteria and that they are given one chance to rectify any minor omissions, as one omission can reduce a distinction standard piece of work to a pass or even referral grade.

Resubmissions are designed to ensure the learner gets the grade that accurately reflects the level of their assessments.

The final grade for each unit will be displayed on the final certificate and the certificate of achievement. There is no overall grade for the qualification.



Responsible persons

Centres

Centres are responsible for setting assessments within the guidelines laid down by the IAT in the Rules of Combination and Unit structure. Centres are encouraged to tailor assessments, within the IAT guidelines, to meet the needs of the learners and their employers so they are as contextually relevant to the workplace and the learners' career needs as possible and ensure that animal welfare remains a fundamental priority throughout the process. The IAT Moderators make regular visits to Centres to ensure assessments are appropriate and standardised between Centres.

All Centres must use an internal verification system prior to issuing assessments and marked work to ensure assessments are fair, meet the learning objectives and clearly state how the learning will be assessed.

All Centres must be able to provide sufficient evidence that they have the staff, resources and management systems necessary to effectively deliver and assess all of the assessment criteria for the IAT units and qualifications they offer. They must also be able to demonstrate how they will record and submit to the IAT accurate records of awards and learner credits. All Centres must demonstrate how they will recognise exemptions and prior learning and how they will apply these appropriately when registering learners with the IAT.

All assessors must demonstrate regular participation in relevant CPD.

On registration the Centre will confirm the eligibility of exemptions and/or any other prior learning provided by the learner. The IAT will issue the learner with a Unique Learner Number and will, on successful completion of a unit, record the credits in the learner's record.

Moderators

Each Centre offering IAT qualifications is accredited by the IAT. Accreditation requires a physical visit to the Centre and meeting with the course leader (and complete teaching team where possible) to discuss the facilities and procedures the Centres have in place. Part of this process requires the Moderator to review the qualifications and experience of teachers and assessors. All assessors are required to hold, or be studying for, an appropriate teaching or an assessor's qualification (for example PGCE, Assessors unit, PTLLS). Assessors involved in the assessment of competence in units involving living animals will be Registered Animal Technologists (RAnTechs). RAnTechs are qualified and experienced animal technologists who have been accepted onto the IAT Register and have agreed to be bound by the Code of Professional Conduct including mandatory CPD. RAnTechs with assessment responsibilities will require additional training in assessing candidates.

A regular review of the Centres, and the response by the Centres to actions required by the IAT, occurs during each moderation visit by IAT Moderators. Typically Centres are visited at least twice yearly.

Moderators meet to discuss standardisation issues and address any action points from their Centre visits at least twice yearly.

Moderators have several key functions in ensuring the assessment process is reliable, fair, accurate and relevant. These functions include:

- advising centres on appropriate procedures and good practice
- advising Board of Educational Policy and Chairman of the Board of Moderators on the running of the education process
- acting as an independent part of appeal process
- regular sampling of assessment activities, methods and records (including evidence used of exemptions) to monitor consistency of assessment decisions as specified by qualification documentation
- providing assessors with prompt, accurate and constructive feedback on their assessment decisions
- undertaking an active role in raising issues of good practice in assessment
- ensuring that equal opportunities and anti-discriminatory practices are upheld in the assessment process
- liaising with other staff members and the External Verifier to implement the requirements of the assessment system and ensure effective quality assurance
- ensuring that all learners' achievement records and Centre documentation are completed in accordance with requirements
- accrediting Centres

External verification

The External Verifier is appointed to act as an independent quality assurance expert. The External Verifier will monitor and review the education process by centre visits, attending moderation meetings and training and working closely with the moderators. External verifiers will have complete access to the whole education system.

Syllabus Review Group (SRG)

The Syllabus Review Group (SRG) is charged with developing the units for use in the QCF. The SRG is composed of persons actively involved in the practice of animal technology and/or teaching, assessing and moderating animal technology qualifications. Members should be Fellows of the IAT and/or hold relevant graduate or post graduate qualifications. An educationalist, with a recognised teaching qualification and experience, will form part of the SRG.

The SRG is chaired by a member of the Board of Educational Policy (BEP) and reports directly to the BEP. The BEP are responsible for meeting with members of industry, employers and technologists to identify their training and education needs. The SRG will meet at least twice annually to discuss stakeholder feedback and sector developments.

As part of its responsibilities the SRG will recommend to the BEP where units are no longer appropriate and suggest they are removed from the Rules of Combination.

Board of Educational Policy (BEP)

The BEP is appointed by Council to advise on education policy and procedures. Its members are charged with ensuring that the IAT's qualifications remain current and appropriate to the latest techniques and knowledge in animal technology. The BEP advises Council on criteria for acceptance of equivalent qualifications and the maintenance of assessments plus associated policy documents.

Recognition of Prior Learning and Achievement

The Qualifications and Credit framework is based on the principle of credit accumulation and transfer. Learners have the opportunity to build their achievements from a single unit into a full Diploma. The IAT will publish on its website which units and qualifications from other Awarding Bodies can be recognised for credit transfer and exemption. Credit transfer in the QCF will be based on confirmation of achievement of QCF numbered units.

There may be instances where learners will wish to claim recognition of prior learning which has not been formally assessed and accredited. In those instances, Centres are free, after discussion and agreement with their Moderator, to support these learners in their efforts to achieve Recognition of Prior Learning (RPL) through the policy set out on the IAT website.

There are three ways to achieve prior learning:

- transfer of QCF credits
- exemption for certificated learning outside the QCF
- assessment and validation of uncertificated learning through the RPL process

The IAT will maintain a proxy list of qualifications and units for which direct exemptions can be awarded.

It is the responsibility of the learner and their chosen Centre to provide sufficient evidence of their prior learning in order that the IAT Moderator can make a judgement on its suitability. It is important to remember the role of the Moderator as an independent part of any appeals process. Should a Moderator become an intrinsic part of the accumulation of evidence and decision making process, they risk impairing their ability to act independently in any appeals.

Questions

General

What is the QCF?

The QCF is the framework for creating and accrediting learning in England, Wales and Northern Ireland. The QCF is designed to provide learners, learning providers and employers with an inclusive and flexible regulated qualifications framework containing units and qualifications that recognise the widest possible range of quality assured learner achievements. Learner achievements are recognised in the form of credits achieved by successfully completing units.

The following all refer directly to the QCF. Describe what is meant by:

Unit

A unit is defined as a coherent set of learning outcomes and related assessment criteria with a title, credit value and level. Each unit must be capable of being individually assessed and be capable of contributing towards at least one qualification.

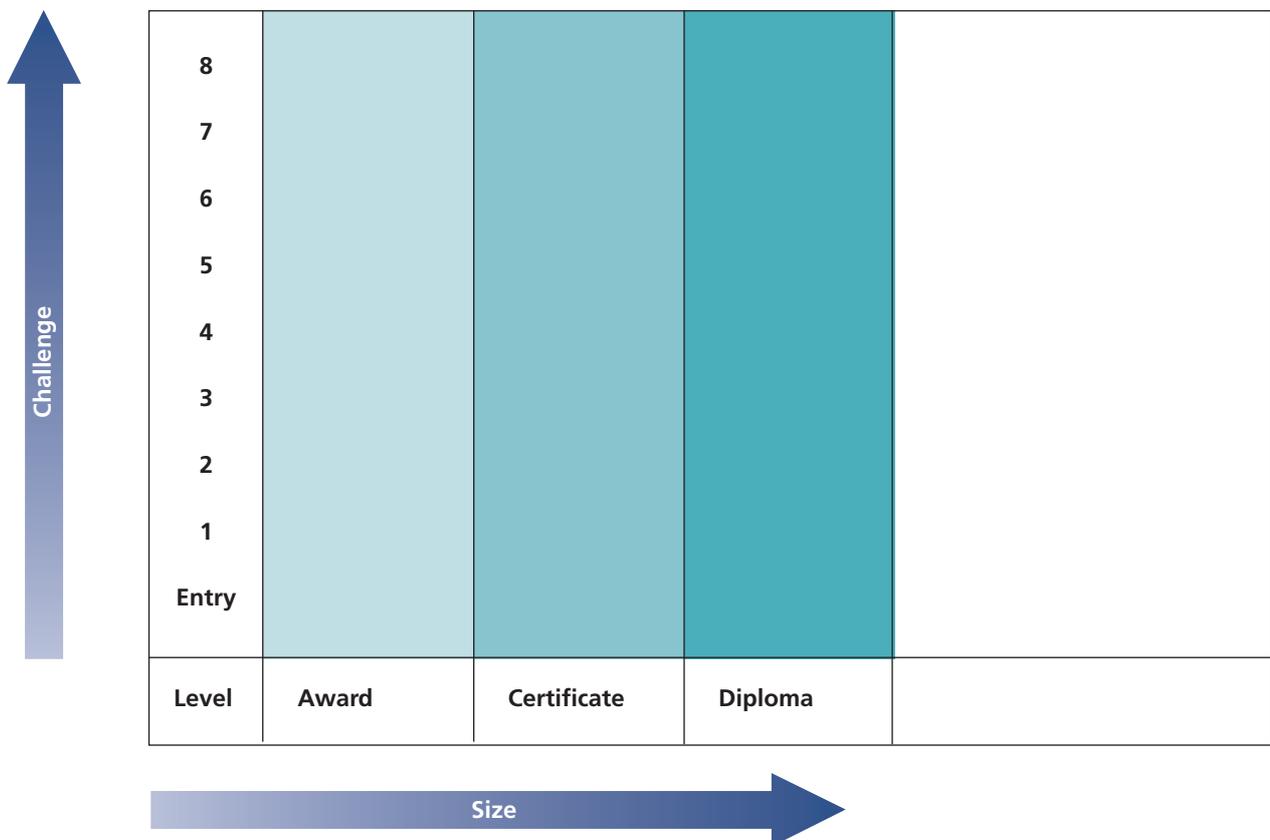
Credit value

The credit value is the amount of time (in hours) it takes an average learner to complete the unit divided by 10 (i.e. one credit equals ten hours of learning). When the qualification is created the credits from the units are totalled to determine the type of qualification.

- where the total of credits is between 1-12 the qualification is called an **Award**
- where the total of credits is between 13-36 the qualification is called a **Certificate**
- where the total of credits is above 36 the qualification is called a **Diploma**

Level

The Level specifies the degree of challenge required to complete a unit. The higher the level the more complex the learning will be.



Rules of Combination (ROC)

All qualifications within the framework have **Rules of Combination**. These specify:

- the credits that need to be achieved
- particular units and how they are combined
- which are optional or mandatory and any barred combinations

The units specify what will be learned and how they will be assessed. The rules of combination describe how the units are linked into a qualification.

Why is the IAT changing so soon after the NQF?

These changes were laid down in 2008 for the move over to the QCF in 2010. All Awarding Bodies wanting to keep their qualifications on the national framework will have to move their qualifications on to the QCF. The IAT have planned for this and the changes will be minimised as far as is possible for Centres and learners.

What are the new units called and how do they compare with existing modules?

Existing NQF Module	NEW QCF Unit	Assessment Option
Housing and routine care of animals	Laboratory animal housing and routines	Competency or written laboratory assessment
Breeding and feeding	The production of laboratory animals	Unit test
	Laboratory animal nutrition	Competency or written assessment
Ethics, law, euthanasia and health and safety	Introduction to ethics and laboratory animal facility legislation	Unit test
Animal husbandry and health	Laboratory animal husbandry and health	Competency or written assessment
Biological science	Laboratory animal biology	Written assessment
Physical science	Animal facility physical science	Written assessment
ICT, Communication & Numeracy	Numeracy for animal technologists	Written assessment
	Communication for animal technologists	Written assessment
	Information Communication Technology for animal technologists	Written assessment
Management of the animals' environment and disease control	Housing and biosecurity barriers in laboratory animal facilities	Written assessment
	Disease control	Written assessment
	Laboratory animal welfare	Unit test
Scientific procedures	Scientific procedures	Written assessment
Animal breeding and genetic alteration	The use of genetically altered animals	Written assessment
	Management of breeding colonies	Written assessment
Ethics, animal legislation, transport and good laboratory practice	Ethics and laboratory animal facility legislation	Unit test
	Animal transportation	Written assessment
Cell biology	Animal cell biology	Written assessment
Physiology	Laboratory animal physiology	Unit test

How do the qualifications link to the IAT membership?

The rules for IAT Membership can be found on the IAT website. The IAT Level 2 Diploma in Laboratory Animal Science and Technology and the Membership module will lead to the Intermediate Membership level. IAT Level 3 Diploma in Laboratory Animal Science and Technology and the Membership module will lead to the full Membership (MIAT).

Will the registration process change?

There will be a single registration one off fee for each qualification. This will replace the individual module registration fee. Learners will be registered for the full qualification.

What changes will I need to make as a:

- Centre
- Learner

Centre: no major changes. The content is the same and the policy and procedures have not changed on a practical level. Some of the modules have been split into smaller units but you can continue to teach them as a combination of units (the original module) as you did before. You can even use your existing assessments for most of the units. There have been some changes to assessment strategy and these will need to be adhered to for those units that have changed. Note also that you may assess several units in one go but each unit must be capable of independent assessment, so you will need to show which questions or tasks apply to each unit.

Learner: learners will be required to do less assignments and some more unit tests. They will take more smaller units but otherwise there will not be any obvious changes.

Will the 5 year rule on exemptions still apply?

No, this will no longer be used as it is discouraged on the QCF.

I presume proxy exemptions no longer apply?

No, there will be a list of proxy qualifications as it becomes clear which QCF qualifications are relevant. Learners can still apply for recognition of prior learning through the normal procedures. Details are on the IAT website.

Do I have to teach/assess each unit separately?

No but each unit must be capable of independent assessment. The Centre's assessment plan, to be agreed with the IAT Moderator, should include a matrix for each qualification showing how each unit is to be assessed against the relevant criteria and which specific piece or pieces of work will be identified in relation to each unit. It should also show how assessment is scheduled into the delivery programme.

What information do I need to present to the Moderator to apply for an exemption from a unit?

The Moderator will require evidence of the learner's prior learning. Generally it will be through a certificate showing their prior performance. You will need evidence that the learning covered relevant topics at the appropriate level, so a list of modules or syllabus would also help if it is a qualification not on the proxy list. For non UK qualifications the learner may need to have them translated or an independent assessment of their level.

What are the new units?

Unit title		Level	Credit
IAT Level 2 Diploma in Laboratory Animal Husbandry (QCF) 600/0558/0			
Laboratory animal housing and routines	F/602/5879	2	12
The production of laboratory animals	T/602/5880	2	8
Laboratory animal nutrition	A/602/5881	2	4
Introduction to ethics and laboratory animal facility legislation	F/602/5882	2	12
Laboratory animal health and husbandry	J/602/5883	2	12
IAT Level 2 Diploma in Laboratory Animal Science and Technology (QCF) 600/0559/2			
Laboratory animal housing and routines	F/602/5879	2	12
The production of laboratory animals	T/602/5880	2	8
Laboratory animal nutrition	A/602/5881	2	4
Introduction to ethics and laboratory animal facility legislation	F/602/5882	2	12
Laboratory animal health and husbandry	J/602/5883	2	12
Laboratory animal biology	Y/602/6049	2	8
Animal facility physical science	L/602/6050	2	8
Numeracy for animal technologists	D/602/6053	2	4
Communication for animal technologists	Y/602/6052	2	4
Information Communication Technology for animal technologists	R/602/6051	2	4
IAT Level 3 Diploma in Laboratory Animal Science and Technology (QCF) 600/0560/9			
Housing and biosecurity barriers in laboratory animal facilities	A/602/5976	3	8
Disease control	M/602/6039	3	12
Laboratory animal welfare	H/602/6040	3	8
Management of breeding colonies	K/602/6041	3	12
The use of genetically altered animals in research	M/602/6042	3	8
Scientific procedures	T/602/6043	3	12
Ethics and laboratory animal facility legislation	A/602/6044	3	12
Animal transportation	J/602/6046	3	8
Animal cell biology	L/602/6047	3	8
Laboratory animal physiology	R/602/6048	3	12



*Contacts and further information
can be obtained from:*

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