

TDA CONSULTATION

Support staff qualifications strategy consultation

Response from the Association for Science Education (ASE) in support of the on-line form completed on the 23rd November 2006.

The Association for Science Education is the largest subject association in the UK, with approximately 15,000 members including teachers, technicians and others involved in science education. The Association plays a significant role in promoting excellence in teaching and learning science in schools and colleges. Working closely with the science professional bodies, industry and business, ASE provides a UK-wide network bringing together individuals and organisations to share good ideas, tackle challenges in science teaching, develop resources and foster high quality continuing professional development. Further details of the ASE and its regional, national and international activities can be found on its web-site www.ase.org.uk

Key messages: Science Technicians and teaching assistants

- **Skilled and experienced science specialist technicians and teaching assistants, working alongside teachers, contribute to effective teaching of science.**
- **The role of science technician should be more explicitly recognised in the school workforce structures.**
- **Funding to support technicians for training and registration for qualifications should be made more accessible.**

Key issues: Support staff consultation and the wider workforce sector as it applies to technicians in schools.

Issue 1: There should be a nationally agreed Career Structure for Science and D&T Technicians.

There should be a nationally agreed career structure along the lines proposed in the leaflet A Career Structure for Science Technicians in School and Colleges and extended to D&T technicians in an appropriate way. The CLEAPSS guide Technicians and their jobs offers a starting point. The career structure leaflet was supported by: ASE, RS, CLEAPSS School Science service, ATL, GMB, DFES, NAHT, Welsh Assembly Government, PAT, NEOST, SHA, T&G, UNISON, IOB, RSC, IoP, IST, PAA/VQSET and City & Guilds.

This is strongly supported in the recent House of Lords Science and Technology Committee **Science Teaching in Schools Report with evidence** dated 5th November 2006 and reproduced below as section 3.72:

A motivated and well-trained supply of technicians is an essential component of effective science teaching. We therefore wholeheartedly endorse the ASE's proposed career structure for technicians, the new NVQ and the virtual assessment centre. We recommend these proposals to the Government, and in addition invite them to consider whether the career structure could be linked to advisory salary scales, in an attempt to increase the almost universally low level of pay for technicians

Issue 2: The technician role needs to be a professional and full time, not part time term time only.

While ASE and D&T Association as educational charities cannot comment in detail on pay and conditions, it was reported at the recent consultation seminars that the role of a technician (and TA) cannot be seen as a professional career unless it can be seen as such, not restricted to those who can afford or wish to work part time and term time only.

Further details can be found in CLEAPSS guide L 228 **Technicians and their jobs** (December 2002). See <http://www.cleapss.org.uk/download/L228.pdf>

Issue 3: Access to funding through LSC

This may need to be agreed with national centres such as techcen on a national basis as individual negotiation with individual LSC's is not time, nor cost, effective. If this is the case for technicians, negotiating this for the whole wider workforce becomes a major issue for schools. This must be made as straightforward and as easy as possible against agreed national priorities.

Issue 4: Technicians and TA/HLTA role

While some technicians do not wish to engage in teaching & learning in the laboratory/classroom, many are in a unique position to offer pupils in practical aspects of science and D&T a very supportive role.

Many TA's and HLTA's do not have the extensive practical repertoire that technicians have. Indeed many may not have had the necessary H&S training that makes an engagement at this level appropriate. This issue was addressed in an EiS article June 2004 **Health and Safety Training for Teaching Assistants Working in Science in Secondary Schools**.

This is not to deny the place of TA's and HLTA's in other areas in science and D&T, and it is a role not suitable to all technicians, but with some T&L input, they have a substantial role to play in ensuring that both science and D&T remain based around relevant, exciting and appropriate practical experiences that make both of these subject areas quite different from most other offerings in a school. Two relevant articles on the role can be found in EiS September 2006 **Training and Professional Development for Teaching Assistants** and from EiS June 2006 **Working with Teaching Assistants to Support Learning in Secondary Schools**.

Issue 5: Technicians and TA/HLTA qualification

Given the overlap that has been suggested above, there needs to be a further exploration of what the TA/HLTA role in a practical subject is and what overlap there is between the traditional technician role servicing the teacher as to one who engages actively, as often happens in D&T, with the pupils.

This is particularly relevant as money seems to be attached to TA/HLTA training and NOT the training of technicians in schools.

The caveat here is that not ALL technicians will want to do this, nor have the necessary skills, but for those who take this route it is unclear whether they need the full level 3 or 4 level LATA NVQ and then the TA training or gain the HLTA status as well!

The other issue is that while a number of technicians already help out in the laboratory/workshop in the way envisaged above, it is then a technician "lost" to carry out that traditional role which will not be seen as such by the SMT in a school as they are still seen as another member of staff supporting the science or D&T department.

Issue 6: Level playing field for NVQ across different roles

It is very difficult to identify the costs associated with the wide range of qualifications available to the wider workforce. It would be helpful if through QCA or otherwise, the arrangements for the awarding body as regards assessors and verifiers were identical.

In this way ALL NVQs should cost the same as the assessment requirements in terms of peer to peer support, assessment tasks etc were the same. If there is a revision of NVQs it should be in this area.

Issue 7: Collaboration on the open source code for other NVQs

The rationale for the website is attached as a pdf document. This was written as an open source code so that other could use in collaboration with ASE and D&T Association, the code for other NVQs.

We are convinced that the methodology developed here is unique and provides a cost effective solution to the often burdensome demands of an NVQ and data collection and presentation of a portfolio of evidence. It offers huge advantages over current paper based systems used by the majority of centres.

It is robust and offers others a chance to build on the work and development already put into the website by both ASE and D&T Association. We would only seek relatively small recompense for developing the system as is and could look to engaging the developers Bit10 should a substantial development be required, but all this would be at a minute cost compared to building a website from scratch or using a commercial site.

Background and involvement of ASE with Science Technicians

In 1990 the Association for Science Education (ASE) published **Technical support for School Science** and in 1994 ASE undertook a 5% sample of all schools leading to the publication **School Technicians: an invaluable asset**. In 1995 ASE was contracted by DFEE to develop occupational standards for laboratory technicians. This was the original **Laboratory Technicians Working in Education NVQ**. ASE also contributed to an EU Leonardo da Vinci Programme to develop a training programme for a **European Environmental and Work Safety Technician** involving Italy, Portugal and Hungary.

In 2001, this was followed by the **Survey of Science Technicians in schools and colleges** (Royal Society/ASE) and in 2002 **Supporting success: science technicians in schools and colleges** (Royal Society/ASE). The two reports, together with the key recommendations can be accessed at: <http://www.royalsoc.ac.uk/displaypagedoc.asp?id=7432> and <http://www.royalsoc.ac.uk/displaypagedoc.asp?id=6167>

Subsequently, ASE was involved with the sector skills council SEMTA, to contribute to and develop the **Laboratory and Associated Technical Activities (LATA) NVQ**, replacing the earlier NVQ **Laboratory Technicians working in Education**. This earlier qualification was only offered only at levels 2 & 3, whereas the LATA was for levels 1-4 and included an education and an industry route.

As a direct precursor to the current project, ASE presented a report to DfES in June 2003 **Supporting success: developing a career structure for science technicians in schools an colleges**. As a result of this, ASE was encouraged to explore the role of technicians working in Design & Technology, and discussions with the D&T Association took place.

In 2004 as a direct outcome of the report to DFES, a leaflet **A Career Structure for Science Technicians in Schools and Colleges** was produced and sent to all schools in England, Wales and N Ireland. This can be found at: http://www.ase.org.uk/htm/homepage/career_structure/careerstructure.pdf

Following discussions between GATSBY and ASE and the D&T Association, the current **techcen** project was developed to support technicians by establishing a **national assessment centre for technicians**. This is available at: www.techcen.org.uk

This was seen as a necessary step break the cycle of the very real problem that there were very few centres offering the qualification and hence making this easier by establishing a national assessment centre. There was also the aim to promote the career structure for technicians working in science and D&T, which was underpinned by the 4-level LATA NVQ.

The key issues for science (and equally for D&T) technicians and teaching assistants were highlighted in the recent submission by ASE in June 2006 to the House of Lords Select Committee on Science Teaching in Schools.

The key messages are reproduced here and further detail can be found as an appendix to this document. While written for a science context, the same messages apply equally to D&T.

The full text can be accessed at: http://www.ase.org.uk/html/homepage/notes_news/june-06/lords.pdf

Science Technicians and teaching assistants

Key messages:

- **Skilled and experienced science specialist technicians and teaching assistants, working alongside teachers, contribute to effective teaching of science.**
- **The role of science technician should be more explicitly recognised in the school workforce structures.**
- **Funding to support technicians for training and registration for qualifications should be made more accessible.**

The importance of good science technicians supporting school science departments to provide exciting, relevant, practically-based courses in science cannot be underestimated. A survey undertaken by the ASE and The Royal Society provided a unique database of information on the roles, responsibilities, working conditions and opinions of laboratory technicians working in secondary schools and colleges. The recommendations set out in the follow-up report mapped out ways forward for improving the status and recognition of science technicians working in schools and colleges.

Progress has been made against the recommendations but there are still several fundamental issues that need to be addressed relating to:

- *the implementation of an improved career structure;*
- *opportunities for technicians to gain recognised qualifications which ASE has taken forward in partnership with the Design and Technology Association through funding from Gatsby Charitable Trust;*
- *funding of technicians to attend courses and register for qualifications.*

Although it is early days the introduction of Higher Level Teaching Assistants specialising in science has some obvious potential benefits. Proposals to deploy some 7,000 specialist HLTAs for maths and science offer a good opportunity to provide additional support for teaching and learning in science. However there is the strong possibility of tension due to lack of clarity in distinguishing the roles of technicians and HLTAs and their conditions of service.

A national assessment centre for technicians?

In the first instance, ASE & D&T Association as **techcen** approached both EdExcel and PAA/VQSET as awarding bodies for the LATA qualification. Following discussions, EdExcel withdrew from supporting the LATA qualification, and we became aware that City & Guilds were now offering the LATA qualification, at least the industrial route. Currently, **techcen** is working with PAA/VQSET as a centre, and is, so we believe, the biggest centre of its kind in the UK for the LATA qualification.

The **techcen** website has been written in an open source code and thus could potentially be used by any other centre following an NVQ route. This has great benefits both in terms of cost and administration, but so far few other centres have chosen to explore this route.

A brief description of techcen

A virtual centre "**techcen**" - a technicians' national assessment centre, has been created to enable access to the Laboratory and Associated Technical Activities (LATA) NVQ qualification which underpins the 4 level career structure: Assistant Technician, Technician, Senior Technician and Team Leader Technician.

This career structure has been publicized in a leaflet **A Career Structure for Science Technicians in Schools and Colleges** which was distributed to all schools in England, Wales and N Ireland, addressed to the Head teacher, Head of Science, Chair of Governors and the Senior Technician. This was endorsed by the Royal Society and CLEAPSS School Science Service and nearly 20 other organizations (www.ase.org.uk/careerstructure.php).

techcen is currently supporting the LATA award at levels 2 and 3. **The qualification is aimed at the needs of both D&T and Science technicians.** It is assessed via a portfolio of evidence that technicians compile while completing their normal duties. One of **techcen's** aims is to develop online assessment methods, which simplify the qualification process and enable technicians to take responsibility for their own professional development.

The virtual centre enables them to engage with the qualification without having to regularly attend sessions away from the workplace. The scheme is currently being piloted in several regional 'hubs' with places subsidised during the year 2006/7.

The initiative is not in the first instance designed to train technicians but helps them identify areas for personal development as they undertake the qualification. Training needs can then often be met within the technician's workplace, provided by colleagues or by attending short courses run through ASE, the D&T Association and can include for science courses run by other organizations such as the CLEAPSS School Science Service or the Science Learning Centres (SLC).

techcen is a registered centre for the LATA award. To gain an NVQ, candidates need to be employed in a relevant educational or industrial context but are not required to attend a course. They will usually be required to attend an induction session but thereafter they will complete the qualification within their own workplace. NVQs are based on occupational standards developed by employers. Occupational standards describe how employees should carry out their jobs. Being awarded an NVQ proves that an employee can use their knowledge and skills to do the job they are paid to do and demonstrates that they are competent.

Summary of existing qualifications for the Wider Workforce as it pertains to technicians in science and D&T in secondary schools.

The following qualifications fall within the TDA's Wider Workforce sector:

Qualification Title	QCA No.	Awarding Body	L e v e l	Current uptake
LATA NVQ in Laboratory and Associated Technical Activities	100/4524/7	PAA/VQSET	2	98/2005
LATA NVQ in Laboratory and Associated Technical Activities	100/4524/7	PAA/VQSET	2	100/2006
LATA NVQ in Laboratory and Associated Technical Activities	100/4525/9	PAA/VQSET	3	25/2006

These are the current NVQ qualifications **techcen** is engaged with, but Level 1 and level 4 also exist and as part of the Modern Apprenticeship, PAA/VQSET also have a technical certificate. We currently deal with PAA VQSET but City & Guilds also offers the LATA qualification.

Details of other relevant qualifications are given below:

100/4523/5 PAA/VQSET Level 1 NVQ in Laboratory and Associated Technical Activities

100/4526/0	PAA/VQSET Level 4 NVQ in Laboratory and Associated Technical Activities (Original NQF Level)		
100/4285/4	PAA/VQSET Level 1 Certificate in Laboratory Technical Skills	VRQ	1
100/4384/6	PAA/VQSET Level 2 Certificate in Laboratory Technical Skills	VRQ	2
100/4385/8	PAA/VQSET Level 3 Certificate in Laboratory Technical Skills	VRQ	3

In addition, **techcen** also offers the A1 Assessor and V1 Verifier awards.

National Vocational Qualifications

National Vocational Qualifications (NVQs) are nationally recognised qualifications aimed at both new trainees and experienced employees. The Laboratory and Associated Technical Activities (LATA) Award is one such NVQ. There are no pre-entry requirements or prescribed methods of learning. Anyone can be registered and assessed through an assessment centre approved by an awarding body such as PAA/VQSET.

The Laboratory and Associated Technical Activities (LATA) Award

This qualification is intended for those already working in a laboratory environment, within an Education, Service or Industrial context. It is particularly appropriate for technicians working in the school and college education sector in the areas of Science, Design and Technology and related curriculum areas such as engineering and construction.

It is for those who work under supervision with responsibility for their own work. The programme provided by **techcen** is flexible and is suitable for those seeking a formal and recognised qualification for the duties they already undertake. The qualification is provided at 4 levels which candidates progress through on completion of a number of units. Both an education and industrial pathway are provided.

The LATA NVQ offered by **techcen** will be supported by a "virtual centre" website. This will provide support and assessment to enable technicians to work towards achieving the LATA NVQ at an appropriate level. The NVQ is a competency based qualification which focuses on the work that you are already doing in your work place. It is assessed via a portfolio of evidence that you compile while you are completing your normal duties. One of **techcen's** aims is to develop online assessment methods, which simplify the qualification process and enable technicians to take responsibility for their own professional development.

Purpose of the Qualification

The Design and Technology Association (DATA) and the Association for Science Education (ASE) believe that skilled and qualified technicians are essential to the work of their respective subject areas. The **techcen** initiative is being developed by them to support technicians' career structure and continued professional development in line with the requirements of Workforce Development.

What's in it for me as a technician?

Undertaking the NVQ qualification will help you identify areas of your job in which you wish to develop skills and knowledge. This will allow you to progress in your career and may open up alternative or enhanced job opportunities within your field. The qualification is linked to the common 4-level framework for science technicians so acquisition of the relevant award is not essential to achieve promotion, you will be viewed favourably if you have demonstrated your commitment to continued professional development.

Qualification Structure

Candidates complete at level 2: 3 mandatory units focussing on H&S and communication skills and 3 optional units taken from a list that broadly covers the range of activities undertaken by technicians e.g. preparing resources, managing stock and ordering and supporting teaching and learning.

At level 3: 5 mandatory units and 3 optional units that extend the level of technicians' duties but most significantly concentrate on their ability to take responsibility for managing resources, managing the work of colleagues and project development.

Assessment Method

The NVQ uses the normal assessment methods associated with this type of qualification. The award is competency based and requires candidates to provide evidence of their ability matched against 'performance statements' working in a range of different contexts. They are also required to demonstrate the appropriate level of knowledge to be occupationally competent. Evidence in the form of personal statements, witness testimonies, video, audio, photographic etc matched to criteria is uploaded by the candidate onto their personal space on the **techcen** website to create an e-portfolio. This is accessed by their nominated assessor who also visits them in the workplace to complete observations of the candidate completing for example H&S duties.

NVQs assess what someone knows and can do in particular the application of skills. In addition they are based on the idea that it is essential employees apply and use a range of appropriate knowledge and skills to complete work activities efficiently and cost effectively.

Instead of taking examinations, candidates are continually assessed against the national standards as they carry out their job in the workplace. Assessment can be completed by other employees but in the main by an external assessor who **techcen** link with the candidate. Together they collect evidence to demonstrate how a work activity was completed. The evidence is then stored in the candidates Electronic Portfolio that is provided in their home space on the **techcen** website.

Progression

In all of the above, progression is ensured that technicians in D&T can progress from level 2 to level 3, with ease, having used the assessment centre this should be an easy task. Because of on line mentoring, the process is relatively easy and the candidate is supported at every stage, particularly as face to face activity takes place at the induction/planning stage and later in the final stages of the award.

Later with the introduction of level 1 & 4, the progression is enhanced. In addition candidates can undertake Assessor (A1) and Verifier (V1) awards. In terms of professional development this is an ideal way of enhancing the role of technicians and increasing the number of assessors.

Ultimately, with the inclusion of the industrial routes at level 2 & 3, progression to industry from technicians currently in schools would be an option.

With an exploration of apprenticeships and advanced apprenticeships with the technical certificate, this could be an additional long term route for those under 25 to gain qualifications.

To explore the possibility of offering the Apprenticeship and Advanced Apprenticeship. See website for further details.

<http://www.apprenticeships.org.uk/partners/frameworks/apprenticeships/apprenticeships/laboratorytechniciansgeneric.htm>

Planned Development Activity

Techcen is currently offering level 2 & 3 through the education route and would want to explore adding level 1 & 4 to the offering, including the industrial route at level 2 & 3.

Planned activity not yet in development

We would like to extend the current offering to include an apprenticeship and advanced apprenticeship through using the PAA/VQSET technical certificates to support this.

We would like other centres offering an NVQ to look at the software and engage with how a wider user base could reduce the costs associated with the NVQ.

We would like to encourage those offering training to technicians, ASE, ASE INSET Services, D&T Association, CLEAPSS School Science Service, Science Learning Centres and others to identify which units the course or training is covering, to make a direct link with the NVQ.

Teaching assistants support the:

- Curriculum
- School
- Learner and
- Teacher

Some are assigned to a class teacher or particular form, some to an individual student. In a few cases they are acknowledged to have a specialist role and given appropriate training. In secondary schools in particular there are a large number whose role is to support an individual often with behavioural as well as learning difficulties. This latter group are rarely given lesson plans or know before they go into a classroom what the subject will be. As their own science education may be limited the support they can give is also limited, or in the worst cases misguided. As the ASE has suggested there is a strong case for all teaching assistants to be given science related health and safety training but also there is a case for some induction into scientific concepts and pedagogy. There may also be issues with mathematic skills. The current NVQ standards do not include a unit on science support and the proposals for specialist science assistants would not aid those following an individual learner. There are also issues of management of classroom assistants by teachers. A recent informal survey of two groups of teaching assistants showed that those working in primary or specialist schools were the best integrated and felt more effective.

A teaching assistant employed as a cover assistant has also pointed out a lack of short activities with a science content which she could use to enliven a 'fill in yet another worksheet' cover session.

HLTA and Foundation degrees

Currently these are two distinct things: one a status and the other a qualification. It would appear that HLTA is at level 4 in the NCF and FD at level 5. A simple way of incorporating HLTA status into all foundation degrees would (or crediting all graduates with HLTA if the FD was accredited by TDA) would remove some of the anomalies in pay which are currently in place in some schools.

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EiS articles attached as pdf files along with techcen specification.

HOUSE OF LORDS
SELECT COMMITTEE ON SCIENCE AND TECHNOLOGY

SCIENCE TEACHING IN SCHOOLS

APPENDIX FIVE from

A SUBMISSION OF EVIDENCE FROM THE ASSOCIATION FOR SCIENCE EDUCATION

JUNE 2006

105. Provision and use of laboratory technicians and teaching assistants

The importance and role of the technician in supporting a science department to deliver an exciting, relevant practically based course cannot be underestimated.

106. A survey¹ by the ASE and the Royal Society has yielded a unique database of information concerning the roles, responsibilities, working conditions and opinions of laboratory technicians working in secondary schools and colleges.

107. There are a number of issues that arise out of the recommendations² made in the follow up report which are described below.

108. The level of technician support for science in schools is not adequate by any of the commonly used measures to determine the number of technicians required. ^{2, 3} Without adequate numbers of science technicians the learning experiences of students will be impaired, raising levels of achievement will be much more difficult, and safety in school laboratories will be compromised. The recommendation is to recruit up to 4,000 additional science technicians.

109. A clear job description for all technicians has been described and is available to all schools.³ **The recommendation is that technicians have a clear job description linked to a national career structure, pay scale and continuing professional development.**

110. A career structure for technicians in schools based on four levels has been published⁴. This is supported by over 20 organisations. **There should be a nationally agreed career structure for science technicians working in schools.**

111. National Occupational Standards for laboratory technicians have been developed. The Laboratory and Associated Technical Activities (LATA) National Vocational Qualification (NVQ) provides a framework in which existing skills can formally recognised, it supports a career progression pathway and encourages technicians to develop their skills throughout their careers.

112. A national assessment centre (techcen⁵) for technicians has been established. This is a joint project with the D&T Association, to a "virtual centre' website. This is a major initiative, funded in the first instance by Gatsby, to develop online assessment methods. This will simplify the qualification process and enable technicians to take responsibility for their own professional development. The project should be supported.

113. Registered Technician (RTech) status is being explored with the Engineering Council. Technicians in schools have a vital role to play in the provision of high quality science education. **National support for Registration would support the development of a suitable career for technicians.** Registration would mean demonstrating competence to perform professional work to the necessary standards and a commitment to maintain that competence, work within professional codes and participate actively within the profession.

114. An induction programme for technicians has been described⁶. **There should be a nationally recognised induction programme for technicians.**

115. An induction programme for Teaching Assistants (TA) in secondary science has been described⁷. While this may adequately cover the first stage of induction, a more detailed programme

covering science-specific aspects including health and safety training for teaching assistants has been produced by ASE⁸ and should be used in schools.

116. The role of the Higher Level Teaching Assistant (HLTA) in science needs to be explored. There are plans⁹ to deploy some 7,000 specialist maths and science HLTAs, enabling each school to have one. There should be detailed hands-on science including health and safety training if that HLTA is to contribute to practical activities in the laboratory.

117. Technicians as HLTA (Specialist & technical) Science is a practical subject, and good quality “hands-on” activities, which involve students undertaking experimentation and investigative work, add hugely to the experience of learning science. If students are to experience such work, a well trained technician service is essential. Existing science technicians might, with suitable additional training, wish to act as a specialist HLTA in the laboratory. It must be understood that if this is the case, extra technician help will be needed in the science department to compensate for lost time.

118. **The profession of science technician is not attracting young recruits.** The apprenticeship route is being explored, but the issues are largely about pay and conditions. Being a technician should be seen as an attractive and viable career.

119. Funding for Continuing Professional Development. While a recommendation for ring fenced funding for the CPD of science technicians was made in the original report, we are now recommending that technicians can access funds set aside for training TA’s or HLTA’s, for example. While ASE INSET Services reports on the popularity of technician courses vs. teacher courses, there is little funding, through for example, Learning Skills Council (LSC) to support the NVQ process.

120. References

1. Survey of science technicians in schools and colleges (ASE & Royal Society, 2001)
2. Supporting success: science technicians in schools and colleges (ASE & Royal Society, 2002)
3. Technicians and their jobs (CLEAPSS guide L228, 2002)
4. A career structure for science technicians in schools and colleges leaflet (ASE, 2004)
5. www.techcen.org
6. Induction and training for science technicians (CLEAPSS guide L234, 2003)
7. Induction training for teaching assistants in secondary science: science module (DfES, 2004)
8. Health and safety training for teaching assistants working in science in secondary schools (EIS, June 2004)
9. Developing people to support learning: a skills strategy for the wider school workforce (School Workforce Development Board, 2006)

THE LABORATORY AND ASSOCIATED TECHNICAL ACTIVITIES NVQ

LATA - Level 1 Educational

All units are mandatory to obtain the NVQ qualification

Mandatory Units

- 1.01 Complying with statutory regulations and organisational safety requirements
- 1.02 Developing and maintaining working relationships
- 1.03 Use laboratory information systems
- 1.04 Take laboratory measurements
- 1.05 Perform basic laboratory activities

LATA - Level 2 Educational

The total number of units required for the award of an NVQ at this level is 6.

All mandatory units. 3 Optional Units (2 must be from Group A)

Mandatory Units

- 1.1 Complying with statutory regulations and organisational safety requirements
- 1.2 Developing and maintaining working relationships
- 1.3 Use laboratory information systems

Group A

- 2.8 Prepare laboratories for learning activities
- 2.9 Maintain Laboratory and Associated Resources
- 2.10 Process requests to support learning

Group B

- 2.6 Calibrate equipment
- 2.7 Control stocks of laboratory materials and equipment
- 2.11 Contribute to the support of student activities
- 2.12 Trial laboratory methods for use in learning activities

INDUSTRIAL ROUTE:

LATA - Level 2 Industrial

The total number of units required for the award of an NVQ at this level is 6. All mandatory units. 3
Optional Units (2 must be from Group A)

Mandatory Title

- 1.1 Complying with statutory regulations and organisational safety requirements
- 1.2 Developing and maintaining working relationships
- 1.3 Use laboratory information systems

Group A

- 2.3 Carry out simple testing operations
- 2.4 Carry out simple sampling operations
- 2.5 Prepare laboratory materials, equipment and resources

Group B

- 2.6 Calibrate equipment
- 2.7 Control stocks of laboratory materials and equipment
- 2.13 Work in aseptic or clean room conditions

LATA - Level 3 Industrial

The total number of units required for the award of an NVQ at this level is 8. All mandatory units. 3
Optional Units (2 must be from Group A)

Mandatory Units

- 3.1 Maintain a Healthy, Safe and Productive Work Environment
- 3.2 Create Effective Working Relationships
- 3.3 Carry out testing operations
- 3.4 Assess data and produce reports
- 3.5 Provide technical support

Group A

- 3.6 Plan delivery of sampling and testing

- 3.7 Carry out complex testing operations
- 3.8 Carry out complex sampling operations
- 3.9 Carry out investigations
- 3.10 Carry out small scale processing
- 3.16 Identify and monitor calibration requirements for equipment
- 3.20 Developing the Research Design

Group B

- 2.7 Control stocks of laboratory materials, equipment and resources
- 2.13 Work in aseptic or clean room conditions
- 3.11 Make presentations
- 3.12 Manage Yourself
- 3.13 Enable learning through demonstrations and instruction
- 3.14 Contribute to the Development of Teams and Individuals
- 3.15 Lead the Work of Teams and Individuals to Achieve their Objective.

LATA - Level 3 Educational

The total number of units required for the award of an NVQ at this level is 8.

All mandatory units. 3 Optional Units (2 must be from Group A)

Mandatory Title

- 3.1 Maintain a Healthy, Safe and Productive Work Environment
- 3.2 Create Effective Working Relationships
- 3.5 Provide technical support
- 3.17 Improve the quality and reliability of the laboratory
- 2.11 Contribute to the support of student activities

Group A

- 3.18 Diagnose faults, repair and maintain laboratory equipment
- 3.19 Develop and trial new laboratory methods
- 3.21 Contribute to the planning of teaching and learning

- 3.22 Demonstrate laboratory methods to facilitate learning
- 2.07 Control stocks of laboratory equipment and materials

Group B

- 3.23 Assist colleagues in particular laboratory techniques
- 3.09 Carry out investigations
- 3.11 Make presentations
- 3.12 Manage yourself
- 3.14 Contribute to the Development of Teams and Individuals
- 3.15 Lead the Work of Teams and Individuals to Achieve Their Objectives
- 3.20 Developing the Research Design

LATA - Level 4 Educational

The total number of units required for the award of an NVQ at this level is 8.

All mandatory units. 4 Optional Units (2 must be from Group A)

Mandatory Units

- 4.1 Develop and Maintain a Healthy and Safe Work Environment
- 4.2 Develop productive working relationships
- 4.3 Develop and monitor plans and procedures
- 4.4 Determine and implement health and safety at risk control measures

Group A

- 4.5 Devise and agree an overall technical plan
- 4.6 Run technical projects
- 4.7 Write technical reports
- 4.8 Manage activities to meet requirements
- 4.9 Manage the use of financial resources
- 4.10 Manage information for action
- 4.11 Develop and deliver teaching and learning activities

Group B

- 3.9 Carry out investigations

3.10 Carry out small scale processing

3.12 Manage yourself

3.20 Developing the Research Design

