DIPLOMA GUIDE

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Access

Qualification No: QAAQ003956 Aim Code: Validation:

Version:

40010557 1 August 2021 – 31 July 2026 2.0

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Access to HE Diploma (Health and Human Sciences)

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English & Maths

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Apprenticeships

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About this Access to HE Diploma guide

This Access to HE Diploma specification is intended for Tutors, Assessors, Internal Quality Assurers, Quality Managers and other staff within Gateway Qualifications Access to HE approved providers/or prospective providers.

It sets out what is required of the student in order to achieve the Access to HE Diploma. It also contains information specific to managing and delivering the Access to HE Diploma (s) including specific quality assurance requirements.

The guide should be read in conjunction with the Gateway Qualifications Access to HE Provider Handbook and other publications available on the website which contain more detailed guidance on assessment and verification practice.

In order to offer this Access to HE Diploma you must be a Gateway Qualifications recognised centre and approved to offer Access to HE Diplomas.

If your centre is not yet recognised, or diploma approved, please contact our Development Team to discuss

 Telephone:
 01206 911211

 Email:
 enquiries@gatewayqualifications.org.uk

 Website:
 <u>https://www.gatewayqualifications.org.uk/advice-guidance/delivering-our-gualifications/become-recognised-centre/</u>



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1. Diploma Information

1.1 Overview of the Access to Higher Education Diploma

The Access to Higher Education (HE) Diploma is a nationally recognised qualification with common requirements relating to the description of student achievement. The Diploma is:

- a level 3 qualification, regulated by the Quality Assurance Agency (QAA) for Higher Education
- a unitised qualification, based on units of assessment which are structured in accordance with the Access to HE unit specification
- a credit-based qualification, operated in accordance with the terms of the Access to HE credit specification
- a graded qualification, as determined by the Access to HE Grading Scheme

Details of the credit framework and requirements relating to the award of credit are provided within the Quality Assurance Agency Recognition Scheme for Access to Higher Education: The Access to Higher Education Diploma specification 2020.

Individual named Diplomas are identified by separate titles and are validated at by Gateway Qualifications as an Access Validating Agency (AVA) recognised by the Quality Assurance Agency for Higher Education (QAA). Each Diploma has its own approved set of units of assessment, governed by rules of combination, which are appropriate to the subject of the particular Diploma. The common grading requirements apply to all individual Diplomas.

1.2 About this Diploma

Learners must complete 45 graded credits at level 3 from academic subject content units. 18 credits must be taken from the Mandatory group. A maximum of 6 credits must be taken from the Research optional group and a minimum of 21 credits must be taken from the optional unit group. Learners must complete 15 ungraded credits, 9 credits from the Mandatory ungraded group and 6 credits from the Optional ungraded group.

1.3 Purpose

The primary purpose of Access to HE Diplomas is to provide higher education progression opportunities for adults who, because of social, education or individual circumstances, may have achieved few, if any, prior qualifications.

1.4 Aims

The qualification aims to:

- reintroduce learners to education recognising prior skills and experience and the particular needs of those returning to learn
- offer learners a responsive, supportive return to learn experience at a level appropriate for entry to HE



- develop the appropriate skills such as study skills that are necessary to enable learners to succeed in their HE career
- address issues of widening participation and social inclusion
- raise student awareness of the opportunities that a return to study and lifelong learning can bring.

1.5 Objectives

The objective of the Diploma is to enable learners to:

- satisfy the general academic requirements for entry to Higher Education
- prepare learners for HE level study generally and in subject areas appropriate to an intended HE course destination
- demonstrate appropriate levels of competence in subject specific skills and knowledge
- demonstrate practical, transferable and academic skills
- develop their confidence and ability to cope with a return to education at an advanced level
- enhance personal and career opportunities
- develop as independent and lifelong learners.

1.6 Sector Subject Area

2.1 Science

1.7 Target groups

a) Adults who, because of social, educational or individual circumstances may have achieved few, if any, prior qualifications and wish to progress to HE
b) Adults who have gone straight into industry (perhaps following apprenticeship routes) who wish to progress to HE.

1.8 Delivery methods

Delivery methods for the Access to HE Diploma (Health and Human Sciences) can include:

Face to face / Blended Learning

Assessment Methods should include:

Project, exam, practical investigation, report, annotated diagram, experiment, graphs and charts, short answer questions, written assignment.



1.9 Achievement methodology

The Diploma will be awarded to learners who successfully achieve an approved combination of units through a Portfolio of Evidence that has been successfully verified and monitored through Gateway Qualifications' Quality Assurance process.

The qualification is therefore determined by successful achievement of all required unit assessments with no further requirement for additional/terminal assessment.

1.10 Geographical Coverage

This qualification has been approved by for delivery in England.

1.11 Progression Opportunities

Following successful completion of the Access to HE Diploma (Health and Human Sciences) learners may progress to the following:

- Biological Sciences BSc (Hons)
- Healthcare Science (Life Sciences) BSc (Hons)
- Biology BSc (Hons) Bioscience BSc (Hons)
- BSc Biomedicine
- BSc Biomedical Science
- BSc (Hons.) Biomedical Science
- BSc (Hons.) Biochemistry
- BSc (Hons.) Pharmaceutical Science
- BSc (Hons.) Pharmacy
- BSc (Hons) Nursing
- BSc Hons Nursing (Child)
- Degree Apprenticeships Nursing

The qualification does not provide guaranteed entry to UK higher education.

1.12 Equality, Diversity and Inclusion

It is Gateway Qualifications' aim that there shall be equal opportunities and so meet the organisation's legal responsibilities to prevent discrimination.

In accordance it is the organisation's intention that there should be no discrimination on the grounds of a protected characteristic including age, disability, gender assignment, marriage and civil partnership, pregnancy and maternity, race, religion and belief, sex, sexual orientation. It is acknowledged that this is not an exhaustive list.



2. Student Entry Requirements

2.1 Age

The course is designed to meet the needs of adults who have been out of full time education for a significant period of time and who have not achieved some or any formal qualifications. This generally would apply to learners over the age of 19.

2.2 **Prior Qualifications**

There is no requirement for learners to have achieved prior qualifications or units prior to undertaking this qualification.

Providers may ask learners for GCSEs as a mark of ability at Level 2 as an appropriate entry requirement to a Level 3 course. This also establishes HEI destination qualifications for Nursing, teaching etc. where these are required as part of the HEI application.

2.3 Prior Skills/Knowledge/Understanding

There is no requirement for learners to have prior skills, knowledge or understanding. However, learners would be expected to be able to demonstrate the skills and ability to study at Level 3.

2.4 Access to qualifications for learners with disabilities or specific needs

Gateway Qualifications and recognised providers have a responsibility to ensure that the process of assessment is robust and fair and allows the learner to show what they know and can do without compromising the rigour of the assessment used to evidence the criteria.

Gateway Qualification has a duty to permit a reasonable adjustment where an assessment arrangement would disadvantage a student with a disability, medical condition or learning need.

The following adaptations are examples of what may be considered for the purposes of facilitating access, as long as they do not impact on any competence standards being tested:

- adapting assessment materials
- adaptation of the physical environment for access purposes
- adaptation to equipment
- assessment material in an enlarged format or Braille
- permitting readers, signers, scribe, prompter, practical assistant
- changing or adapting the assessment method
- extra time, e.g. assignment extensions
- transcript



- use of assistive software where the software does not influence the learners' ability to demonstrate the skills, knowledge or understanding eg use of spellchecker in an English assessment
- using assistive technology
- use of CCTV, coloured overlays, low vision aids
- use of a different assessment location
- use of ICT/responses using electronic devices.

It is important to note that not all of the adjustments (as above) will be reasonable, permissible or practical in particular situations. The learner may not need, nor be allowed the same adjustment for all assessments.

Learners should be fully involved in any decisions about adjustments/adaptations. This will ensure that individual needs can be met, whilst still bearing in mind the specified assessment criteria for a particular qualification.

A reasonable adjustment for a particular learner may be unique to that individual and may not be included in the list of available access arrangements specified above.

Details on how to make adjustments for learners is set out in the Reasonable Adjustment and Special Considerations Policy and Procedures.

2.5 Additional Requirements/Guidance

Learners must have a UK address (including BFO) to be registered on an Access to HE Diploma.

2.6 Recruiting Learners with Integrity

It is vital that providers recruit with integrity. Providers must ensure that learners have the correct information and advice on their selected qualification(s) and that the qualification(s) will meet their needs.

The recruitment process must include the provider undertaking the assessment of each potential student and making justifiable and professional judgements about the student's potential to successfully complete the assessment and achieve the qualification. Such an assessment must identify, where appropriate, the support that will be made available to the learner to facilitate access to the qualification.



3. Achieving the Access to HE Diploma

3.1 Qualification Specification

The generic requirements for the Access to HE Diploma are that learners must achieve a total of 60 credits of which 45 credits must be achieved at level 3 from graded units that are concerned with academic subject and the remaining 15 credits can be achieved at level 2 or level 3 from units which are ungraded. It is recommended you include no more than 6 ungraded 'academic subject content' credits. The ungraded credits can be mandatory or optional within the Diploma. The approved Rules of Combination for this qualification are detailed below.

Where there is a selection of optional units within the permitted rules of combination, the selection of units to be used to form the Diploma course must be made before the learners are registered. Learners must be registered with Gateway Qualifications within 12 weeks of the start of the course or before application to UCAS, whichever is soonest.

3.2 Rules of Combination

The structure sets out the units required to be achieved the Access to Diploma, comprising of:

- Graded Academic mandatory units Level 3
- Graded Academic optional units Level 3
- Graded Research units Level 3
- Ungraded units Level 2/3.

Learners must achieve a total of 60 credits and meet unit group requirements.

Learners must complete at total of 60 credits of which 45 credits must be achieved at level 3 from graded units which are concerned with academic subject content and the remaining 15 credits must be achieved at level 3 from units which are ungraded.



Mandatory Units: Graded Academic Subject Content

Learners must achieve 18 credits from this group.

Unit Code	Unit Title	Level	Credits	Content	Grade Descriptors	Suggested Assessment methods	Assessment Volume
QU006277	Essential Chemistry and Biomolecules	3	3	A	1, 2, 7	Exam (Closed Book) Academic Poster + presentation	1 hour closed book 500 words + 5 minutes
QU031950	Human Anatomy and Physiology	3	6	A	2, 3, 7	Exam Experiment and report Report	2 hours in total closed book 300 words 750 words
QU006176	Mathematics for Science	3	3	А	3, 7	Exam	2 hours closed book
QU018996	Understanding Genetics	3	6	A	1, 2, 4, 5, 7	Exam Practical Investigation and report	1.5 hours closed book 500 words

Graded Units: Research

Learners must achieve 6 credits from this group.

Unit Code	Unit Title	Level	Credits	Content	Grade Descriptors	Suggested Assessment methods	Assessment Volume
QU028879	Research: Extended Writing Project for Science	3	6	A	1, 2, 3, 4, 7	Practical with Report including Project Brief	3000 words
QU026078	Research: Practical Investigation Project for Science	3	6	A	2, 3, 4, 6, 7	Risk assessment Project diary Project proposal Research review Report Evaluation	250 words 500 words 250 words 500 words 1250 words 250 words



Optional Graded Units: Graded Academic Subject Content

Learners must achieve 21 credits from this group.

Unit Code	Unit Title	Level	Credits	Content	Grade Descriptors	Suggested Assessment methods	Assessment Volume
QU006106	Biological Molecules	3	3	A	1, 2, 7	Academic Poster LO1+2 + presentation Report LO3+4	750 words + 5 minutes 750 words
QU029962	Cell Theory and Microbiology	3	3	A	1, 2, 7	LO1 + LO2 Structured Questions Exam (Closed Book)	750 words 1 hour
QU006146	Chemical Basics and Atomic Structure	3	3	A	2, 3, 7	Exam	2 hours closed book
QU006148	Chemical Bonding, Structure and Quantity	3	3	A	1, 2, 3, 7	Exam (Closed Book) Worksheet	1.5 hours closed book 500 words
QU029150	Circulation, Immunity and Homeostasis	3	3	A	1, 2, 7	Exam - closed book	2 hours closed book
QU006259	Energetics, Kinetics, Equilibria	3	3	А	2, 3, 7	Exam (Closed Book)	2 hours closed book
QU006301	Fundamental Chemistry	3	6	A	2, 3, 4, 7	Investigation, Report Exam	1500 words 1.5 hours open book
QU006471	Human Systems - Co-ordination	3	3	A	1, 2, 7	Exam 1 hr (Closed Book) Structured Questions LO1, LO2 + LO3	1 hour 750 words
QU030429	Introduction to Organic Chemistry	3	3	A	2, 3, 7	Exam (Closed Book) Practical Investigation with Scientific Report	1 hour 750 words
QU025625	Nutrition and Digestion	3	3	A	1, 2, 7	LO1 & LO3 Practical investigation with scientific report x 2 LO2 Essay	300 words each 500 words

QU019014	Practical Chemical Analysis	3	3	А	1, 2, 7	Investigations and Scientific Report	1000 words
QU014056	The Blood	3	3	А	1, 2, 7	Exam (Closed Book)	2 hours closed book
QU017109	The Endocrine System	3	3	А	1, 2, 7	Exam (Closed Book)	2 hours closed book

Mandatory Units: Ungraded

Learners must achieve 9 credits from this group.

Unit Code	Unit Title	Level	Credits	Content	Suggested Assessment methods	Assessment Volume
QU025532	Preparation for Higher Education	3	3	O	Research, Application form and Personal Statement, Prepared Q&A	Review of research, course and decision 500 words, application form, Personal Statement 750 words, prepared Q&A 250 words
QU026344	References and Reliability of Sources	3	3	0	Literature review	1500 words including recognised form of referencing and bibliography
QU031633	Study Skills for Higher Education	3	3	0	Report Summary Samples of notes Study timetable Revision timetable Essay in controlled conditions Presentation	500 words Approx. 150 words 2 x samples of notes To cover 2 weeks To cover 2 weeks 1.5.hrs 10 minutes including visual aids and appropriate resources



Specify Group Name Optional Units: Ungraded

Learners must achieve 6 credits from this group.

Unit Code	Unit Title	Level	Credits	Content	Suggested Assessment methods	Assessment Volume
QU018346	Academic Reading Skills	3	3	0	Exam	1.5 hours closed book
QU025276	Academic Writing Skills	3	3	0	Notes from a range of sources Essay plan Essay	300 words 200 words 1000 words
QU007560	Communication - Speaking and Listening	3	3	0	Oral presentation Group discussion Self evaluation	15 minutes 15-20 minutes and supporting materials 500 words 200 words
QU025278	Developing Professional Attributes	3	3	0	SWOT analysis Professional development plan Essay	200 words 300 words 1000 words
QU025837	Drug Calculations and Health Related Charts	3	3	0	Exam Open Book Short answer questions	1 hour 500 words
QU007516	Mathematics - Calculations	3	3	0	Exam	2 hours
QU010772	Practical Science Skills	3	3	0	Practical	750 words
QU027084	Presenting Information Using ICT	3	3	0	Notes from a range of sources Presentation Presentation lecture notes and handouts	300 words Presentation 200 words
QU018352	Presentation Skills	3	3	0	Notes from a range of sources Presentation	300 words 200 words 1000 words

					Presentation lecture notes and handouts	
QU018630	Problem Solving in the Workplace	3	3	0	Project	1500 words - Analyse and propose solutions to at least two workplace problems including justification for selected solution
QU025796	Professional Interpersonal Skills	3	3	0	SWOT analysis Case study Reflective account	250 words 750 words 500 words
QU028487	Promoting Wellbeing and Building Resilience	3	3	0	Report	1500 words
QU011467	Spreadsheets	3	3	0	Portfolio of Evidence	Spreadsheet and 500 words supporting notes
QU007846	Statistics	3	3	0	Data analysis short answer Qs Create charts and graphs Worksheets Case study analysis of data Tree diagrams	Short answers Qs 500 words Worksheets 500 words Case study 250 words Tree diagrams 250 words
QU033854	Sustainability Project	3	3	A	Report, including project plan and reflection	1000 words
QU033880	The Fundamentals of Environmental Sustainability	3	3	А	Report	1500 words
QU026155	Writing reports	3	3	0	Report plan Presentation of report plan Report	Plan 2-3 minutes 1000 words



3.3 Additional completion requirements

Learners will probably require a pass in maths and English at Level 2 / GCSE to progress onto a degree course. Delivery providers should make learners aware of HEI course entry requirements.

3.4 Recognition of Prior Learning

Recognition of prior learning is a process that considers if a learner can meet the specified assessment requirements through knowledge, understanding or skills that they already possess and that can contribute towards the attainment of a qualification for which they are undertaking.

For further information please refer Annex C, Access to HE Diploma Specification, <u>https://www.accesstohe.ac.uk/AboutUs/Publications/Documents/Access-Diploma-Specification.pdf</u>

4. Access to HE Units of Assessment

4.1 Unit specification

A common unit specification applies to all units with Access to HE Diplomas the unit specification follows a standard template covering the following elements:

- title
- level
- credit value
- unit code
- learning outcomes
- assessment criteria
- grade descriptors
- type of unit (academic subject content or not).

The units of assessment for this Access to HE Diploma are contained within this Access to HE Diploma Guide.

4.2 Academic subject content

A unit is classified as having academic subject content, if the unit's knowledge and skills are directly related to the subject of the name of the Access to HE Diploma. Units will not meet the academic subject content requirement if they are principally concerned with personal development, generic English or mathematics, or study skills.

4.3 Graded and ungraded units

Graded units – grading operates at unit level and only applies to units which have been approved by Gateway Qualifications within a named Access to HE Diploma. Student achievement for graded units is recorded as Pass, Merit or Distinction for each unit, as set out in the QAA Access to HE Grading Scheme, 2012. Graded units will also satisfy the criteria of academic subject content.

There is a common set of broad generic grade descriptors which are used as the basis for all grading judgements on all courses:

- 1 Understanding the subject
- 2 Application of knowledge
- 3 Application of skills
- 4 Use of knowledge
- 5 Communication and presentation
- 6 Autonomy / Independence
- 7 Quality.

The seven grade descriptors are not subject specific. They can, however, through careful selection and in appropriate combinations, be used on all courses, with all units and for all

assignments. The descriptors to be used with a particular unit are selected with reference to the main aspects of student performance that need to be taken into account when grading decisions are made for that unit. They are formally assigned to the unit when it is validated.

Each of the seven grade descriptors comprises two sets of components, one which describes characteristics or qualities typical of performance at merit, and a parallel set of components which describes typical performance in the same areas at distinction. (There are no components for pass, because a pass grade is gained when a student meets the learning outcomes, but does not achieve the standard required for merit.) Some of these components are more relevant to certain subjects than others and some particular terms are also more relevant for use with particular types of assessment than others. In order to ensure the grade descriptors are relevant for specific assignments, tutors identify the components of the components of the descriptors (at merit and distinction) are then included in the assignment brief(s).

The grading scheme is not based on an assumed one-to-one relationship between the grade descriptors and learning outcomes (although it is possible that in some units, because of the way the learning outcomes have been structured, something close to a one-to-one relationship may emerge). In general, however, judgements about student work in relation to grading apply across the work for a unit, whether that unit is assessed through one, or more than one, assignment.

The full Grade Descriptors can be accessed by the following link, which also provides detailed information on grading:

http://www.accesstohe.ac.uk/AboutUs/Publications/Documents/Access-Grading-Scheme-Section-B.pdf

4.4 Revisions to Access to HE Units of Assessment

Gateway Qualifications reserves the right to review and amend units of assessment and will issue providers notification of the changes to the units of assessment. Gateway Qualifications undertakes regular unit reviews to ensure currency of units, providers are required to use updated versions where units are replaced.

5. Assessment and Quality Assurance

5.1 **Provider Requirements**

Providers must be approved by Gateway Qualifications as a centre and are required to ensure that:

- the main base is in the UK
- systems are in place to ensure that only learners with a UK address (including BFO) are registered for an Access to HE Diploma
- there are clear arrangements for the day-to-day operational management and coordination of Access to HE delivery.
- there are appropriate facilities and resources at each site, and for each mode of delivery
- staff have the professional competence and skills to teach and assess necessary to teach and assess the units available on the Diploma
- arrangements are in place to provide pre-course guidance to applicants and criteria for selection and admission to Access to HE Diplomas, and are consistent with QAA requirements with respect to admissions. <u>https://www.accesstohe.ac.uk/AboutUs/Publications/Documents/Guidance-</u> admission-of-learners-AHE-07.pdf.
- expertise and resources to provide information, advice and guidance on HE applications and progression opportunities.
- Systems for maintaining secure records of individual learners' registration and achievement
- internal moderation arrangements that meet Gateway Qualification requirements.
- arrangements for internal course monitoring and self-evaluation and feedback
- procedures and criteria for the recognition of prior learning that meet Gateway Qualifications requirements.
- quality assurance procedures relating to the delivery of provision, including transparent processes for handling appeals and complaints.

Providers should refer to the Gateway Qualifications' Access to HE Provider Handbook for further information on centre requirements.

5.2 Staffing Requirements

Providers are required to ensure that:

- staff have the professional competence and skills to teach and assess necessary to teach and assess the units available on the Diploma
- staff have expertise to provide information, advice and guidance on HE applications and progression opportunities.

5.3 Facilities and Resources

Depending on the choice of unit, centres will require access to relevant science equipment.

5.4 Assessment

Recommended assessment methods for each unit within a diploma are identified in section 3.2 <u>Rules of Combination</u>. To provide greater flexibility for Centres to develop an assessment strategy that meets the needs of their individual learners, Centres can select an alternative assessment method for the units(s) within the diploma using the equivalence guidance published on the website.

The guidance includes the expected assessment volume for different assessment methods and should enable Centres to choose alternatives whilst ensuring that the same rigor of assessment is maintained in comparison to any other three or six credit unit.

5.5 Quality Assurance Requirements

Gateway Qualifications applies a quality assurance model to the Access to HE Diploma of:

- internal assessment and internal verification by the provider
- moderation by Gateway Qualifications comprising of centre moderation and subject moderation.

These processes are set out within Quality Assurance section of the Gateway Qualifications' Access to HE Provider Handbook.

5.6 Additional Requirements/Guidance

There are no additional requirements that Learners must satisfy in order for assessment to be undertaken and the unit/qualification to be awarded.

6. Unit Details

Mandatory Units: Graded Academic Subject Content

Access to HE Diploma Unit

Title:	Essential Chemistry and Biomolecules				
Unit Code:	QU006277				
Unit Level:	Level 3	Unit Credit:	3		
Grading type:	Graded				
Grade Descriptors:	 GD1-Understanding the subject GD2-Application of knowledge GD7-Quality 				
Academic subject content/other:	Academic subject content				
Suggested Assessment details:	Refer to assessment grid				

LEARNING OUTCOMES	ASSESSMENT CRITERIA
The learner will:	The learner can:
 Understand how to distingui between elements, compour mixtures. 	
2 Understand and identify che formulae and their use in ch equations.	
3 Understand the structure of biomolecules.	3.1 Explain the structure of biomolecules and relate their structure to their functions.
4 Understand the acid/ base r and the role of buffer solutio	······································

	4.2 Explain the pH scale and its uses.4.3 Explain buffer solutions.
5 Understand the difference between oxidation and reduction reactions.	5.1 Explain oxidation and reduction reactions.5.2 Distinguish between good and poor oxidising and reducing agents.

Title:	Human Anatomy and Physiology		
Unit Code:	QU031950		
Unit Level:	Level 3	Unit Credit:	6
Grading type:	Graded		
Grade Descriptors:	 GD2-Application of knowledge GD3-Application of skills GD7-Quality 		
Academic subject content/other:	Academic subject content		
Suggested Assessment details:	Refer to assessment grid		

LEARNING OUTCOMES	ASSESSMENT CRITERIA
The learner will:	The learner can:
1 Understand the structure and function of the heart and circulatory system.	 1.1 Compare the main components of the blood. 1.2 Analyse and determine the basic anatomy of the heart. 1.3 Explain the anatomy of arteries, veins and capillaries. 1.4 Explain the function of the circulatory system with reference to the main blood vessels.
2 Understand the structure and function of the digestive system.	 2.1 Analyse the gross anatomy of the digestive system. 2.2 Define, explain and differentiate the overall function of each part of the digestive system. 2.3 Analyse the different types of enzymes found in the digestive system. 2.4 Investigate and analyse one example of enzyme action experimentally.
3 Understand the structure and function of the skeleton.	3.1 Identify and describe the main parts of the skeleton - axial appendicular ribcage, girdles and limbs

	 Only a few common bone names should be introduced. 3.2 Describe, differentiate and analyse the nature of position of the various joints. 3.3 Discuss and evaluate the movement brought about at joints . E.g. forearm
4 Understand the structure and function of the respiratory system.	 4.1 Describe the gross and microscopic structure of the respiratory system. 4.2 Describe breathing in terms of changes in volume and pressure. 4.3 Identify the adaptations of the gas exchange surface.
5 Understand the structure and function of the kidney in excretion.	 5.1 Describe the gross and microscopic structure involved in the formation of urine in the kidney. 5.2 Describe the process involved in the formation of urine in the kidney. 5.3 Explain the role of ADH in the process of osmoregulation.

Title:	Mathematics for Science		
Unit Code:	QU006176		
Unit Level:	Level 3 Unit Credit: 3		
Grading type:	Graded		
Grade Descriptors:	GD3-Application of skillsGD7-Quality		
Academic subject content/other:	Academic subject content		
Suggested Assessment details:	See assessment grid		

LEARNING OUTCOMES	ASSESSMENT CRITERIA
The learner will:	The learner can:
 Understand how to perform calculations with integers, decimals and fractions. 	 1.1 Make calculations involving integers, decimals and fractions with or without a calculator. 1.2 Give answers to calculations correct to a specified number of decimal places or significant figures. Using accuracy appropriate to the nature of the data.
2. Understand how to perform calculations with percentages.	 2.1 With and without a calculator, convert between percentages, decimals and fractions. 2.2 Express one quantity as a percentage of another. 2.3 Find a percentage of a quantity. 2.4 Calculate percentage increase and decrease; direct and inverse problems.
3. Understand how to use standard form, indices and roots.	 3.1 Make conversions between ordinary numbers and standard form. 3.2 Use the exponential key and interpret calculator displays. 3.3 Make calculations involving indices and roots.

	3.4 Apply index laws to simplify expressions involving powers and roots.
 Understand how to evaluate formulae. 	4.1 Evaluate formulae by substitution using the full range of functions on a scientific calculator.
5. Understand how to calculate area and volume.	5.1 Calculate the surface area of plane geometric figures and the volume of complex geometric figures.

Title:	Understanding Genetics		
Unit Code:	QU018996		
Unit Level:	Level 3	Unit Credit:	6
Grading type:	Graded		
Grade Descriptors:	 GD1-Understanding the subject GD2-Application of knowledge GD4-Use of information GD5-Communication and presentation GD7-Quality 		
Academic subject content/other:	Academic subject content		
Suggested Assessment details:	Exam - 1.5 hours open book Practical investigation and 500 word report		

LEA	ARNING OUTCOMES	ASSESSMENT CRITERIA	
The	learner will:	The learner can:	
1	Understand the processes and importance of mitosis and meiosis.	 Explain the stages of m meiosis. Explain the significance differences between m meiosis. 	e of the
	Understand the composition, structure and role of nucleic acids in the replication of DNA and the process of protein synthesis.	2.1 Explain the structure as replication of DNA.2.2 Explain protein synthes	
	Understand the genetic basis of inheritance.	 3.1 Analyse how genetic p involving monohybrid, o and sex linked inheritan solved. 3.2 Discuss specific examp chromosome mutations their significance. 	co-dominant nce may be bles of



4 Know the process of DNA extraction.	 4.1 Explain the stages involved in extracting DNA from cells. 4.2 Analyse why it might be necessary to extract DNA. 4.2 Deform DNA extraction from cells.
	4.3 Perform DNA extraction from cells safely and competently.

Graded Research Units

Access to HE Diploma Unit

Title:	Research: Extended Writing Project for Science		
Unit Code:	QU028879		
Unit Level:	Level 3	Unit Credit:	6
Grading type:	Graded		
Grade Descriptors:	 GD1-Understanding the subject GD2-Application of knowledge GD3-Application of skills GD4-Use of information GD7-Quality 		
Academic subject content/other:	Academic Subject Content		
Suggested Assessment details:	See assessment grid		

LEARNING OUTCOMES	ASSESSMENT CRITERIA	
The learner will:	The learner can:	
 Be able to plan an extended writing project. 	 1.1 Identify and agree an extended writing project located within a knowledge domain relevant to the named Diploma. 1.2 Develop a project brief. 1.3 Identify any ethical, practical or safety issues, explaining how these will be managed/overcome. 1.4 Maintain a record of project progress through all stages of research, development and completion. 	
2 Be able to conduct research.	2.1 Identify and conduct in-depth research from a wide range of sources.	
3 Be able to develop ideas.	 3.1 Select appropriate information and/or evidence. 3.2 Analyse findings and develop ideas. 3.3 Produce a body of work which meets the brief and includes complex ideas. 	



4 Be able to present the project.	 4.1 Write coherently in a conventional style, appropriate to the knowledge domain. 4.2 Reference all sources using a recommended style of referencing.
5 Be able to evaluate own writing project.	5.1 Evaluate own writing in relation to project brief.5.2 Identify recommendations for the future.

Title:	Research: Practical Investigation Project for Science		
Unit Code:	QU026078		
Unit Level:	Level 3	Unit Credit:	6
Grading type:	Graded		
Grade Descriptors:	 GD2-Application of knowledge GD3-Application of skills GD4-Use of information GD6-Autonomy/Independence GD7-Quality 		
Academic subject content/other:	Academic Subject Co	ontent	
Suggested Assessment details:	Risk assessment Project diary Project proposal Research review Report Evaluation	250 words 500 words 250 words 500 words 1250 words 250 words	

LEARNING OUTCOMES	ASSESSMENT CRITERIA
The learner will:	The learner can:
1 Be able to plan a practical investigation project.	 1.1 Identify and agree a practical investigation project, located within a knowledge domain relevant to the named Diploma. 1.2 Produce a hypothesis and clear aims for the investigation project. 1.3 Identify any ethical, practical or safety issues and how these will be managed/overcome. 1.4 Produce a risk assessment. 1.5 Maintain a record of project progress through all stages of research, development and completion.
2 Be able to undertake a practical investigation.	2.1 Carry out research from a wide range of sources.2.2 Develop an appropriate investigation.



	 2.3 Identify the variables and explain how they can be controlled, where necessary. 2.4 Carry out the investigation safely, using appropriate practical skills and techniques. 2.5 Analyse the results of the investigation with reference to relevant theory.
3 Know how to present the project.	 3.1 Present the body of work in a style appropriate to the knowledge domain with clear conclusions. 3.2 Use appropriate technical terminology fluently. 3.3 Reference all findings using a recommended style of referencing.
4 Be able to evaluate own research project.	 4.1 Reflect on the design and methodology of the project. 4.2 Evaluate the body of work in relation to aims and hypothesis. 4.3 Identify recommendations for the future.

Optional Units: Graded Academic Subject Content

Access to HE Diploma Unit

Title:	Biological Molecules		
Unit Code:	QU006106		
Unit Level:	Level 3	Unit Credit:	3
Grading type:	Graded		
Grade Descriptors:	 GD1-Understanding the subject GD2-Application of knowledge GD7-Quality 		
Academic subject content/other:	Academic subject co	ontent	
Suggested Assessment details:	Refer to assessment	t methods	

LEARNING OUTCOMES	ASSESSMENT CRITERIA
The learner will:	The learner can:
 Understand the structure of biomolecules. 	1.1 Describe the structure of a monosaccharide, disaccharide and polysaccharide.
2 Understand how structure relates to their properties.	 2.1 Explain and compare the properties of mono, di and polysaccharides. 2.2 Analyse and compare the protein polymer with a polysaccharide polymer in terms of structure, range of types and function.
3 Understand the identification tests for reducing and non reducing sugars.	 3.1 Explain identification tests for reducing and non-reducing sugars from practical work. 3.2 Relate results of this to structures in 1.1.
4 Know the identification tests for starch, proteins and lipids.	4.1 Explain identification tests for starch lipids and protein from practical work.

Title:	Cell Theory and Microbiology		
Unit Code:	QU029962		
Unit Level:	Level 3	Unit Credit:	3
Grading type:	Graded		
Grade Descriptors:	 GD1-Understanding the subject GD2-Application of knowledge GD7-Quality 		
Academic subject content/other:	Academic subject co	ontent	
Suggested Assessment details:	Refer to assessment	grid	

LEARNING OUTCOMES	ASSESSMENT CRITERIA
The learner will:	The learner can:
 Understand the five kingdom classification systems. 	 Classify different organisms into their kingdoms. Explain the rationale for inclusion in each of these kingdoms.
2 Understand cell structure and function.	 2.1 Identify and relate structure to function in the major components of prokaryotic and eukaryotic cells. 2.2 Summarise and explain the similarities and differences between bacterial plant and animal cells.
3 Understand the use of light and electron microscopes.	3.1 Interpret cell diagrams and explain the uses and limitations of light, transmission and scanning electron microscopy.
4 Understand movement across membranes.	 4.1 Identify examples of different forms of trans-membranal movement with full justification. 4.2 Explain the principles of and differences between the different forms of trans-membranal



movement, relating them to membrane structure.
Title:

Unit Code:
Unit Level:
Grading type:
Grade Descriptors:
Academic subject content/other:
Suggested Assessment details:

LEARNING OUTCOMES	ASSESSMENT CRITERIA		
The learner will:	The learner can:		
 Understand different types of substance. 	1.1 Use the terms 'element' and 'compound' correctly in context.		
2 Understand the particulate nature of matter.	2.1 Use the terms 'atom', 'molecule' and 'ion' correctly in context.		
3 Understand and demonstrate the process of chemical change.	 3.1 Recognise that chemical changes have occurred from observations and equations. 3.2 Use balanced equations to illustrate chemical change. 		
4 Know the structure of the nuclear atom.	 4.1 Name the three subatomic particles and state their mass and charge. 4.2 Use 'mass number' and 'atomic' number to describe the numbers of particles in an atom. 4.3 Recognise the existence of isotopes. 4.4 Define and use the term 'Relative Atomic Mass'. 		

5	Be able to derive the electron configuration of atoms.	5.1	Derive the electron configurations in terms of s, p, d orbitals of atoms with atomic numbers 1 to 36.

Title:	Chemical Bonding, Structure and Quantity		
Unit Code:	QU006148		
Unit Level:	Level 3	Unit Credit:	3
Grading type:	Graded		
Grade Descriptors:	 GD1-Understanding the subject GD2-Application of knowledge GD3-Application of skills GD7-Quality 		
Academic subject content/other:	Academic subject content		
Suggested Assessment details:	Refer to assessment grid		

LEARNING OUTCOMES	ASSESSMENT CRITERIA
The learner will:	The learner can:
1 Understand and explain chemical bonding.	 1.1 Explain covalent bonding in terms of electron sharing and pairing. 1.2 Explain ionic bonding in terms of electron transfer. 1.3 Explain metalic bonding. 1.4 Draw 'dot & cross' diagrams for covalent and ionic compounds.
2 Understand physical properties of substances and their structures showing an awareness of the existence of intermolecular forces.	 2.1 Explain the physical properties of substances in terms of their structures and the types of attractive forces operating in them. 2.2 Explain physical properties in terms of weak intermolecular forces.
3 Be able to apply the concept of quantity.	3.1 Use units of mass, volume and amount as appropriate.
4 Be able to apply and understand the mole concept.	4.1 Convert mass to amount and vice-versa.4.2 Calculate reacting quantities from chemical equations.

Title:	Circulation, Immunity and Homeostasis		
Unit Code:	QU029150		
Unit Level:	Level 3	Unit Credit:	3
Grading type:	Graded		
Grade Descriptors:	 GD1-Understanding the subject GD2-Application of knowledge GD7-Quality 		
Academic subject content/other:	Academic Subject Content		
Suggested Assessment details:	Exam 1.5 hours	closed book	ζ.

LEARNING OUTCOMES	ASSESSMENT CRITERIA		
The learner will:	The learner can:		
 Understand how the human circulatory system functions and how it may be affected by degenerative conditions. 	 1.1 Explain how the structure of blood, the heart and blood vessels relates to their function in transport and metabolic exchange. 1.2 Explain risk factors associated with coronary heart disease. 		
2 Understand how the human immune system functions.	 2.1 Explain how the major components of the immune system function and their significance in the immune response. 2.2 Explain the differences between passive, active and acquired immunity. 		
3 Understand the concept of homeostasis within the human body.	3.1 Explain what homeostasis entails and explain how it is achieved with reference to suitable homeostatic mechanisms of the body.		

Title:	Energetics, Kinetics, Equilibria		
Unit Code:	QU006259		
Unit Level:	Level 3	Unit Credit:	3
Grading type:	Graded		
Grade Descriptors:	 GD2-Application of knowledge GD3-Application of skills GD7-Quality 		
Academic subject content/other:	Academic subject content		
Suggested Assessment details:	See assessment grid		

LEARNING OUTCOMES	ASSESSMENT CRITERIA	
The learner will:	The learner can:	
1 Understand the mole concept.	 1.1 Apply the mole concept to describe quantity of substance. 1.2 Calculate a mass from a number of moles and vice versa. 	
2 Understand the energetics of chemical reactions.	 2.1 Explain that reactions are accompanied by an energy change. 2.2 Draw reaction profile diagrams to differentiate between exothermic and endothermic reactions. 2.3 Calculate enthalpy changes using bond energies. 	
3 Understand the factors affecting kinetics.	 3.1 Describe the factors influencing reaction rate. 3.2 Explain the effect of temperature concentration and surface area using the collision theory. 3.3 Define activation energy and explain its influences on rate. 3.4 Describe and explain the action of a catalyst. 3.5 Use the Maxwell-Boltzman distribution to explain the effect of a catalyst. 	

	3.6 Explain the effect of mechanism on rate.
4 Be able to apply equilibrium concepts to chemical reactions.	 4.1 Explain the characteristics of the equilibrium state. 4.2 Define and apply Le Chaterliers principle. 4.3 Explain on a simple level the changes that occur when an equilibrium is disturbed.

Title:	Fundamental Chemistry		
Unit Code:	QU006301	QU006301	
Unit Level:	Level 3 Unit Credit: 6		6
Grading type:	Graded		
Grade Descriptors:	 GD2-Application of knowledge GD3-Application of skills GD4-Use of information GD7-Quality 		
Academic subject content/other:	Academic Subject Content		
Suggested Assessment details:	See assessment grid		

LEARNING OUTCOMES	ASSESSMENT CRITERIA
The learner will:	The learner can:
1 Understand chemical nomenc both inorganic and organic.	lature 1.1 Identify and explain chemicals from chemical formulae and structures.
2 Understand the techniques of chemical analysis.	 2.1 Explain spectroscopy and chromatography in simple terms. 2.2 Explain different types of spectroscopy.
3 Understand how to balance chemical equations.	3.1 Explain chemical equations.
4 Understand basics of bonding	. 4.1 Explain four main types of bonding and relate them to the position of the elements in the periodic table.
5 Understand how to use chemi equipment.	 5.1 Explain a variety of equipment found in a chemistry lab. 5.2 Critically analyse the faults in an experiment and suggest ways of improvement.



6 Understand how to relate chemistry to own life.	 6.1 Explain chemistry in everyday situations such as the home or body. 6.2 Explain examples of applications of chemistry in everyday life.
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Title:	Human Systems - Co-ordination		
Unit Code:	QU006471		
Unit Level:	Level 3 Unit Credit: 3		
Grading type:	Graded		
Grade Descriptors:	 GD1-Understanding the subject GD2-Application of knowledge GD7-Quality 		
Academic subject content/other:	Academic subject content		
Suggested Assessment details:	Refer to assessment grid		

LEARNING OUTCOMES	ASSESSMENT CRITERIA	
The learner will:	The learner can:	
1 Understand the central and peripheral nervous system and their functional units; neurones.	 1.1 Explain the structure and functions of the central and peripheral nervous system. 1.2 Explain the structures and functions of a neurone distinguishing between the three main types found in the human body. 1.3 Explain a reflex arc and nerve impulse. 1.4 Discuss two diseases/disorders of the central nervous system mentioning causes, symptoms and treatment. 	
2 Understand the main glands of the endocrine system.	2.1 Discuss the role of the hormones secreted by the main endocrine glands in the human body and their effects.	
3 Understand sensory perception.	 3.1 Explain the structure and function of the eyes. 3.2 Explain the mechanism of visual perception in the eyes. 3.3 Explain the structure and function of the ears. 3.4 Explain how sound is perceived in the ears. 	

Title:	Introduction to Organic Chemistry		
Unit Code:	QU030429		
Unit Level:	Level 3 Unit Credit: 3		
Grading type:	Graded		
Grade Descriptors:	 GD2-Application of knowledge GD3-Application of skills GD7-Quality 		
Academic subject content/other:	Academic Subject Content		
Suggested Assessment details:	See assessment grid		

LE	ARNING OUTCOMES	ASSESSMENT CRITERIA	
The	e learner will:	The	learner can:
1	Understand the importance of carbon chemistry	1.1	Explain the tetravalent bonding of carbon and its ability to bond with itself and other elements.
2	Understand how to use the accepted conventions of representing organic compounds.	2.1 2.2 2.3	Draw structural formulae. Identify and explain simple molecules using the IUPAC system. Explain the types of isomerism (structural, geometric and optical).
3	Understand how to classify organic compounds in homologous series.	3.1 3.2 3.3 3.4 3.5	Define and explain homologous series. Conduct experiments related to homologous series. Recognise and explain general formulae of alkanes. Identify and explain functional groups. Investigate two examples of functional groups experimentally.

Title:	Nutrition and Digestion		
Unit Code:	QU025625		
Unit Level:	Level 3 Unit Credit: 3		
Grading type:	Graded		
Grade Descriptors:	 GD1-Understanding the subject GD2-Application of knowledge GD7-Quality 		
Academic subject content/other:	Academic Subject Content		
Suggested Assessment details:	See assessment grid		

LEARNING OUTCOMES	ASSESSMENT CRITERIA	
The learner will:	The learner can:	
 Understand the importance of a balanced diet. 	 Describe the role of carbohydrates, proteins, fats, vitamins, minerals, fibre and water in a balanced diet, providing two sources of each. Explain the consequences of nutritional imbalance to human health. Analyse factors that affect energy and nutritional requirements. 	
2 Understand the digestion of food.	 2.1 Describe the alimentary canal, including each organ's function. 2.2 Explain the properties of the different parts of the alimentary canal. 2.3 Analyse the products of hydrolysis of nutrients by enzymes, relating this to the processes of: ingestion egestion. absorption digestion. 	
3 Understand the functions of the liver and pancreas in relation to digestion.	3.1 Analyse liver function in terms of digestion.	



	Analyse pancreatic function in terms of digestion.

Title:	Practical Chemical Analysis		
Unit Code:	QU019014		
Unit Level:	Level 3 Unit Credit: 3		
Grading type:	Graded		
Grade Descriptors:	 GD1-Understanding the subject GD2-Application of knowledge GD7-Quality 		
Academic subject content/other:	Academic subject content		
Suggested Assessment details:	Investigations		
	Scientific report - 1000 words		

LEARNING OUTCOMES	ASSESSMENT CRITERIA
The learner will:	The learner can:
 Know how to investigate quantitative analysis on the components of matrices to determine their composition. Know how to investigate apartrasponie techniques to identify 	 1.1 Demonstrate accurately the amount of analyte in matrices. 1.2 Explain the composition of the matrices analysed. 1.3 Critically compare the use of primary and secondary titrimetric standards. 2.1 Demonstrate accurately the appendix the prime of colutions of colutions.
spectroscopic techniques to identify compounds and determine concentrations.	 concentrations of solutions using the Beer-Lambert law. 2.2 Explain correctly the structures of simple organic compounds from their percentage composition, infrared spectra, mass spectra, 1H NMR and 13C NMR spectra.
3 Know how to investigate chromatographic techniques to identify components and determine the amounts present in samples.	 3.1 Explain the operation and applications of capillary GC and HPLC instrumentation and measurements. 3.2 Demonstrate accurately the identity and amount of analytes using



qualitative and quantitative GC and HPLC data.

Title:	The Blood		
Unit Code:	QU014056		
Unit Level:	Level 3	Unit Credit:	3
Grading type:	Graded		
Grade Descriptors:	 GD1-Understanding the subject GD2-Application of knowledge GD7-Quality 		
Academic subject content/other:	Academic Subject Content		
Suggested Assessment details:	See assessment grid		

LEARNING OUTCOMES	ASSESSMENT CRITERIA
The learner will:	The learner can:
1 Understand the function of blood and its composition.	 1.1 Explain the major components and functions of blood. 1.2 Explain the formation of blood cells and how they mature. 1.3 Explain the structure and function of RBC, including the role of haemoglobin, and how they are recycled. 1.4 Describe the structure of WBC and explain their functions in relation to immunity.
2 Understand the blood clotting process.	2.1 Explain the process of haemostasis in detail.
3 Understand blood groups and compatibility.	3.1 Analyse blood group compatibilities and explain why they are compatible or not.

Title:	The Endocrine System		
Unit Code:	QU017109	QU017109	
Unit Level:	Level 3 Unit Credit: 3		
Grading type:	Graded		
Grade Descriptors:	 GD1-Understanding the subject GD2-Application of knowledge GD7-Quality 		
Academic subject content/other:	Academic Subject Content		
Suggested Assessment details:	See assessment grid		

LEARNING OUTCOMES	ASSESSMENT CRITERIA		
The learner will:	The learner can:		
1 Know the structure of the endocrine system.	1.1 Describe the positions of the main endocrine organs of the body.		
2 Know the main features of hormone action.	 2.1 Explain the difference in action between two main classes of hormones. 2.2 Compare and contrast the action of hormones with neurones. 		
3 Understand the action of the pituitary gland.	3.1 Explain how the pituitary gland regulates other glands.3.2 Describe the link between the pituitary and the nervous system.		
4 Understand the action of the adrenal gland.	 4.1 Explain the circumstances under which adrenaline is produced. 4.2 Describe some of the hormones of the adrenal gland and their effects. 4.3 Describe the role the adrenal gland plays in maintaining homeostasis. 		



	ne role of hormones in blood sugar levels.	5.1	Explain the role of insulin and glucagon in the control of blood glucose.	
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Mandatory Units: Ungraded

Access to HE Diploma Unit

Title:	Preparation for Higher Education		
Unit Code:	QU025532		
Unit Level:	Level 3 Unit Credit: 3		
Grading type:	Ungraded		
Grade Descriptors:	Ungraded		
Academic subject content/other:	Other		
Suggested Assessment details:	Refer to assessment grid.		

LEARNING OUTCOMES	ASSESSMENT CRITERIA
The learner will:	The learner can:
 Understand how to identify opportunities for Higher Education. 	 Use information sources to research Higher Education courses. Analyse processes and procedures necessary to gain entry to Higher Education. Analyse information on Higher Education courses and make appropriate realistic choices.
2 Understand the process of completing a Higher Education application form.	 2.1 Complete an application form with excellent attention to detail, meeting a given deadline. 2.2 Summarise and evaluate personal experiences, achievement and goals, communicating these clearly in a personal statement.
3 Understand preparation required for the interview process.	 3.1 Conduct further personal research into courses at relevant institutions in preparation for an interview. 3.2 Prepare provisional answers to anticipated questions, making



excellent use of previous experience and recent study.

Title:	References and Reliability of Sources			
Unit Code:	QU026344			
Unit Level:	Level 3 Unit Credit: 3			
Grading type:	Ungraded			
Grade Descriptors:	Ungraded			
Academic subject content/other:	Other			
Suggested Assessment details:	Literature review 1500 words including recognised form of referencing and bibliography			

LEAR		ASSESSMENT CRITERIA		
The le	The learner will:		earner can:	
_	Inderstand the difference between primary and secondary sources.	1.1	Evaluate the difference between primary and secondary sources.	
р	Inderstand the value of a variety of primary source materials as evidence.	2.1 2.2	Analyse primary sources for a specific context. Evaluate the primary sources, taking into account: authorship, purpose, audience, and underlying values and beliefs.	
	Inderstand the uses and limitations of secondary sources.	3.1	Compare and evaluate secondary sources considering the following: use of sources, 'facts', background material, interpretation.	

Title:	Study Skills for Higher Education		
Unit Code:	QU031633		
Unit Level:	Level 3 Unit Credit: 3		
Grading type:	Ungraded		
Grade Descriptors:	Ungraded		
Academic subject content/other:	Other		
Suggested Assessment details:	Refer to assessment grid.		

LEARNING OUTCOMES	ASSESSMENT CRITERIA		
The learner will:	The learner can:		
 Be able to manage and organise own study time. 	 Produce a personal schedule of study to accommodate own time constraints. Devise a strategy for prioritising and organising coursework to meet deadlines 		
2 Know how to prepare for exams effectively	 2.1 Prepare a revision timetable for exams 2.2 Evaluate strategies to support effective revision based on own learning preferences 		
3 Be able to retrieve information from reliable sources.	 3.1 Retrieve information from a range of reliable written sources using a range of reading skills. 3.2 Scan source material, evaluating information to create accurate and detailed notes to suit purpose. 3.3 Demonstrate the use of a recognised referencing system for retrieved information. 		
4 Present information using a range of approaches.	4.1 Present information using different formats for academic purposes. <i>This must include academic speaking.</i>		

Optional Units: Ungraded

Access to HE Diploma Unit

Title:	Academic Reading Skills		
Unit Code:	QU018346		
Unit Level:	Level 3 Unit Credit: 3		
Grading type:	Ungraded		
Grade Descriptors:	Ungraded		
Academic subject content/other:	Other		
Suggested Assessment details:	Please refer to assessment grid.		

LEARNING OUTCOMES	ASSESSMENT CRITERIA	
The learner will:	The learner can:	
 Be able to demonstrate the use of different reading techniques. 	 1.1 Annotate text after using skimming, scanning and active reading techniques. 1.2 Summarise text after using skimming, scanning and active reading techniques. 	
2 Explain, with examples, how language used in texts can reveal assumptions and prejudice.	2.1 Identify and explain instances of opinion and bias in text.2.2 Analyse the use of objective and emotive language in a text.	
3 Demonstrate how to apply critical reading techniques to texts.	3.1 Analyse the strengths and weaknesses of an argument from at least two texts.3.2 Critically evaluate an argument.	

Title:	Academic Writing Skills		
Unit Code:	QU025276		
Unit Level:	Level 3 Unit Credit: 3		
Grading type:	Ungraded		
Grade Descriptors:	Ungraded		
Academic subject content/other:	Other		
Suggested Assessment details:	Notes from a range of sources (300 words), essay plan (200 words), essay (1,000 words)		

LE	LEARNING OUTCOMES		ASSESSMENT CRITERIA			
The	e learner will:	The learner can:				
1	Be able to record information from a range of sources.	1.1	Use note-taking skills to prioritise key points from a range of sources.			
2	Be able to plan and develop a structured framework for extended writing, including an introduction, main body and conclusion.	2.1	Develop a detailed essay plan for an extended piece of writing, which organises meaning and ideas coherently and effectively. Include detailed planning for an introduction, main body and conclusion to the essay.			
3	Be able to proofread and edit own writing effectively.	3.1	Produce an essay draft which shows evidence of proofreading and editing.			
4	Be able to present information and opinion in a written format, using language, style and conventions appropriate to academic writing.	4.1 4.2 4.3	Communicate with clarity and detail to convey meaning and ideas effectively. Write following conventions of sentence structure, punctuation, paragraphing, spelling and grammar. Use appropriate style and register which shows an awareness of audience.			



5	Be able to understand and use a standard form of referencing.	5.1	Use accurately a standard form of referencing that reflects a range of sources.

Title:	Communication - Speaking and Listening		
Unit Code:	QU007560		
Unit Level:	Level 3 Unit Credit: 3		
Grading type:	Ungraded		
Grade Descriptors:	Ungraded		
Academic subject content/other:	Other		
Suggested Assessment details:	Refer to assessment grid.		

LEARNING OUTCOMES	ASSESSMENT CRITERIA
The learner will:	The learner can:
 Give a short presentation about a straightforward subject. 	 Speak clearly using language, tone and style appropriately to the purpose, subject, audience and situation. Present information in a structured sequence so that ideas and concepts are easily followed by the audience. Use appropriate supporting material to illustrate presentation. Respond appropriately and sensitively to questions from the audience.
2 Take part in discussions.	 2.1 Give and obtain information and exchange ideas in discussion on both familiar and unfamiliar subjects. 2.2 Organise contributions to match the demands of the discussion, use vocabulary precisely, deal with sensitive issues appropriately and take account of the audience, subject, situation and purpose of the discussion and own role in it. 2.3 Take forward the discussion and create opportunities for others to contribute by asking follow up



	 questions, listening to and interpreting other points of view sensitively or inviting others to contribute their views. 2.4 Respond appropriately to questions.
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Title:	Developing Professional Attributes		
Unit Code:	QU025278		
Unit Level:	Level 3 Unit Credit: 3		
Grading type:	Ungraded		
Grade Descriptors:	Ungraded		
Academic subject content/other:	Other		
Suggested Assessment details:	SWOT analysis (200 words), professional development plan (300 words), essay (1,000 words)		

LEARNING OUTCOMES	ASSESSMENT CRITERIA
The learner will:	The learner can:
 Understand the difference between positive and negative professional attributes. 	1.1 Evaluate both positive and negative professional attributes.1.2 Link positive attributes to the role of a professional.
2 Be able to reflect on own professional attributes and areas for development.	 2.1 Produce SWOT analysis of own professional attributes. 2.2 Evaluate SWOT analysis. 2.3 Produce an individual professional development plan linked to the SWOT analysis.
3 Understand which attributes are considered important by employers in a specific sector and are valued in the workplace.	 3.1 Analyse which professional attributes are valued highly by employers within a specific sector. 3.2 Analyse why these professional attributes are important in a sector specific workplace.
4 Understand the link between professional attributes and emotional intelligence.	4.1 Analyse the links between professional attributes and emotional intelligence.

Title:	Drug Calculations and Health Related Charts	
Unit Code:	QU025837	
Unit Level:	Level 3 Unit Credit: 3	
Grading type:	Ungraded	
Grade Descriptors:	Ungraded	
Academic subject content/other:	Academic subject content	
Suggested Assessment details:	See assessment grid	

LEARNING OUTCOMES	ASSESSMENT CRITERIA		
The learner will:	The learner can:		
 Use units specific to drug calculations. 	 1.1 Convert between micrograms, mg, g and kg, without the use of a calculator. 1.2 Convert between litres and millilitres, without the use of a calculator. 1.3 Analyse the impact of miscalculating when converting between units in a 		
2 Calculate drug dosages.	health setting.2.1 Find the total dose of drug required		
	 by weight. 2.2 Find the total dose of a drug required when this is dependent on a patient's body surface area. 		
	2.3 Find the total dose of drug required when this is dependent on a patient's age.		
3 Perform calculations for administering fluids by the intravenous route.	 3.1 Express intravenous infusion rates for a given volume over a given time. 3.2 Express intravenous infusions drip rates for a given length of syringe drive over a given time. 		



4	Use health-related charts to record vital signs.	4.1	Enter a range of clinical data on a patient's vital signs onto the National Early Warning Score Chart. NEWS2 was introduced across the NHS in 2018 and should be the format used for achievement of this criterion. Interpret the data for one patient and calculate the score correctly.
5	Use health-related charts to record fluid balance.	5.1 5.2 5.3	Enter the given data for one patient to record fluid intake and output. Calculate the required fluid intake and output for a patient of a given weight over a period of 24 hours. Calculate the fluid balance for a given patient over a 24 hour period.
6	Understand the need for accurate documentation within a health setting.	6.1 6.2	Explain the requirement for accurate recording of data in health related charts. Analyse implications of not recording data accurately in a health setting.

Title:	Mathematics - Calculations		
Unit Code:	QU007516		
Unit Level:	Level 3 Unit Credit: 3		3
Grading type:	Ungraded		
Grade Descriptors:	Ungraded		
Academic subject content/other:	Academic Subject Content		
Suggested Assessment details:	Refer to assessment grid		

LEARNING OUTCOMES	ASSESSMENT CRITERIA
The learner will:	The learner can:
1 Understand how to tackle problems involving numbers.	 Apply the four number rules to numbers including decimals and fractions within multistage problems. Use positive and negative numbers in a practical context. Convert numbers within and across unit systems within multi-stage tasks. Calculate answers using a) percentages and reverse percentages b) ratio, direct and inverse proportion c) given formulae d) perimeters, areas and volumes of complex shapes e) powers and roots f) common units of measurement. Summarise the method of calculation and the processes used. Carry out processes in a proper order to a degree of accuracy appropriate to the task, clearly showing methods.
2 Understand how to use estimation and check results.	2.1 Use procedures including estimation to check results and evaluate the effects of accumulating errors in calculations.



2.2	Explain the upper and lower bounds of accuracy for given results.

Title:	Practical Science Skills		
Unit Code:	QU010772		
Unit Level:	Level 3	Unit Credit:	3
Grading type:	Ungraded		
Grade Descriptors:	Ungraded		
Academic subject content/other:	Academic Subject Content		
Suggested Assessment details:	See assessment grid		

LEARNING OUTCOMES	ASSESSMENT CRITERIA		
The learner will:	The learner can:		
 Be able to use a range of general laboratory equipment. 	 Demonstrate how to use equipment safely and effectively within a laboratory. 		
2 Be able to use specialised equipment in a laboratory.	2.1 Demonstrate how to carry out a scientific procedure with accuracy.		
3 Know how to work with appropriate regard for safety.	 3.1 Demonstrate how to carry out practical science work in a safe manner. 3.2 Assess the possible safety issues relating to a practical scientific procedure. 		
4 Understand how to report on scientific investigations.	 4.1 Produce an experimental report with use of appropriate scientific terminology. 4.2 Identify a range of ways in which the work could be improved. 4.3 Evaluate the outcomes of the original objective, identifying further steps to be taken in the development of work. 		

Title:	Presenting Information Using ICT		
Unit Code:	QU027084		
Unit Level:	Level 3	Unit Credit:	3
Grading type:	Ungraded		
Grade Descriptors:	Ungraded		
Academic subject content/other:	Other		
Suggested Assessment details:	Notes from a range of sources Presentation (word processed, spreadsheet, presentation) Presentation lecture notes and handouts		300 words Presentation 200 words

LEARNING OUTCOMES	ASSESSMENT CRITERIA	
The learner will:	The learner can:	
1 Understand ways of using ICT to present information.	 1.1 Find and analyse examples of information presented through ICT. 1.2 Explain which forms of presentation suit different types of information. 1.3 Analyse examples of information presented with clear layout and style. 1.4 Explain the importance of copyright when presenting information. 	
2 Be able to use a range of ICT software applications to present information.	 2.1 Present text information for a given purpose using a variety of features in word processing software. 2.2 Present information for a given purpose using a variety of features in spreadsheet software. 2.3 Present information for a given purpose using a variety of features in present information for a given purpose using a variety of features in presentation software. 	



 Range should include presentation, spreadsheet and word processing software. 3.2 Present information to meet a specific brief. 3.3 Save information in a structured format so it can be found easily and justify choice. 	3 Be able to integrate ICT software to present information.	 software. 3.2 Present information to meet a specific brief. 3.3 Save information in a structured format so it can be found easily and justify
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Indicative Content: Presenting Information Using ICT

Learning Outcome 1:

Learning Outcome 2:

Learning Outcome 3:

E.g. embedding a chart produced in a spreadsheet into a document or presentation.

Title:	Presentation Skills		
Unit Code:	QU018352		
Unit Level:	Level 3	Unit Credit:	3
Grading type:	Ungraded		
Grade Descriptors:	Ungraded		
Academic subject content/other:	Other (ungraded)		
Suggested Assessment details:	Timed presentation		

LEARNING OUTCOMES	ASSESSMENT CRITERIA		
The learner will:	The learner can:		
1 Develop and plan a structured presentation.	1.1 Demonstrate skills to plan a timed presentation.1.2 Develop the structure for a presentation.		
2 Conduct research for a presentation from a number of sources.	 2.1 Identify topic and aims of research. 2.2 Select appropriate resources from different sources. 2.3 Select appropriate information pertinent to the topic. 		
3 Demonstrate ability to deliver a presentation on a complex subject.	 3.1 Convey information on a chosen topic in the form of a presentation to a group. 3.2 Demonstrate effective use of audio- visual aids appropriate to the topic. 3.3 Demonstrate appropriate eye contact and body language. 3.4 Respond effectively to questions and challenges. 		
4 Evaluate own skills and performance.	 4.1 Critically evaluate own presentation. 4.2 Critically evaluate own delivery of the presentation. 4.3 Identify strategies for improvement. 		

Title:	Problem Solving in the Workplace		
Unit Code:	QU018630		
Unit Level:	Level 3	Unit Credit:	3
Grading type:	Ungraded		
Grade Descriptors:	Ungraded		
Academic subject content/other:	Other		
Suggested Assessment details:	Refer to assessment grid.		

LEARNING OUTCOMES	ASSESSMENT CRITERIA		
The learner will:	The learner can:		
1 Understand factors that may influence problem solving in the workplace.	1.1 Analyse factors which influence the choice of solution for problems.		
2 Know how to solve problems in the workplace.	 2.1 Analyse the nature of specific workplace problems. 2.2 Explain the actions that need to be taken to solve the workplace problems. 2.3 Analyse the potential consequences and impact of proposed actions. 		
3 Be able to apply solutions to workplace problems.	3.1 Select preferred solution to workplace problems.3.2 Justify the choice of solution.		
Title:	Professional Interpersonal Skills		
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Unit Code:	QU025796		
Unit Level:	Level 3 Unit Credit: 3		
Grading type:	Ungraded		
Grade Descriptors:	Ungraded		
Academic subject content/other:	Academic subject content		
Suggested Assessment details:	SWOT analysis - 250 words, case study - 750 words, reflective account - 500 words		

This unit has 3 learning outcomes.

LEARNING OUTCOMES		ASSESSMENT CRITERIA		
The le	earner will:	The l	earner can:	
V	Inderstand how verbal and non- rerbal communication is used in a professional interpersonal interaction.	1.1	Analyse the verbal and non-verbal skills used in a range of contexts within a given profession.	
а	Understand the importance of an awareness of cultural diversity for a given profession.	2.1	Evaluate the importance of an awareness of cultural diversity across a range of contexts for a given profession.	
S	Be able to evaluate own interpersonal skills, analysing strengths and areas o develop.	3.1 3.2	Evaluate own interpersonal skills, analysing strengths and areas to develop. Evaluate ways of addressing areas to develop.	

Title:	Promoting Wellbeing and Building Resilience		
Unit Code:	QU028487		
Unit Level:	Level 3	Unit Credit:	3
Grading type:	Ungraded		
Grade Descriptors:	Ungraded		
Academic subject content/other:	Other		
Suggested Assessment details:	1500 word report		

This unit has 4 learning outcomes.

LEA		ASSESSMENT CRITERIA		
The	learner will:	The learner can:		
1.	Understand the physical and psychological impact of pressure and stress on mental wellbeing.	1.1 Explain the physical and psychological impact of pressure and stress on mental wellbeing.	Ł	
2.	Understand the connection between mental wellbeing and resilience.	2.1 Analyse the connection between mental wellbeing and resilience.		
3.	Understand the factors that can improve wellbeing and build resilience.	 3.1 Explain factors that can improve wellbeing. 3.2 Explain factors that can negatively affect wellbeing and how to avoid them. 3.3 Explain the behaviours associated with resilience. 3.4 Explain ways to build resilience. 		
4.	Understand how to manage an individual's mental wellbeing and the support available to them.	 4.1 Evaluate the methods for managing and maintaining mental wellbeing and building resilience. To include practical and theoretical methods such as breathing exercises to reduce stress, mindfulness techniques. 4.2 Analyse the types of support available from different sources. 	S	

Title:	Spreadsheets		
Unit Code:	QU011467		
Unit Level:	Level 3	Unit Credit:	3
Grading type:	Ungraded		
Grade Descriptors:	Ungraded		
Academic subject content/other:	Other		
Suggested Assessment details:	Please refer to assess	ment grid.	

This unit has 7 learning outcomes.

LEARNING OUTCOMES	ASSESSMENT CRITERIA
The learner will:	The learner can:
 Know how to design and store a spreadsheet. 	 Design a spreadsheet appropriate to a user's requirements. Create and store the spreadsheet. Evaluate the spreadsheet in terms of meeting the user's needs.
2 Be able to retrieve and modify an existing spreadsheet.	2.1 Modify the spreadsheet design/content in response to user feedback.
3 Know how to print a spreadsheet.	3.1 Print or display whole or part spreadsheets/formulae with a variety of print layout options.
4 Be able to enhance user readability.	 4.1 Use suitable formatting options for displaying text and numeric values. 4.2 Define and use conditional formatting to limit input error and give suitable messages to users.
5 Understand spreadsheet functions.	5.1 Develop a spreadsheet solution using a range of mathematical functions.

6	Understand graphical facilities.	6.1 6.2	Use an appropriate graph type. Draw pie, bar, line graphs with appropriate labels attached.
7	Know how to use additional features within the spreadsheet environment.		Use advanced sorting, protecting and filtering facilities on a spreadsheet. Analyse data using pivot tables.

Title:	Statistics		
Unit Code:	QU007846		
Unit Level:	Level 3 Unit Credit: 3		3
Grading type:	Ungraded		
Grade Descriptors:	Ungraded		
Academic subject content/other:	Academic subject content		
Suggested Assessment details:	Refer to assessment grid		

This unit has 4 learning outcomes.

LEARNING OUTCOMES	ASSESSMENT CRITERIA
The learner will:	The learner can:
1 Be able to illustrate statistical data.	1.1 Construct a cumulative frequency curve.1.2 Construct a histogram.
2 Know how to perform statistical calculations.	 2.1 Calculate the median from a cumulative frequency curve. 2.2 Calculate the lower quartile from a cumulative frequency curve. 2.3 Calculate the upper quartile from a cumulative frequency curve. 2.4 Using a histogram calculate the median. 2.5 Using a histogram calculate the mode.
3 Be able to perform calculations using grouped data.	3.1 Calculate the mean.3.2 Calculate the variance.3.3 Calculate the standard deviation.
4 Be able to perform correlation calculations.	4.1 Calculate the product-moment coefficient.4.2 Calculate the rank correlation coefficient.



Title:	Sustainability Project			
Unit Code:	QU033854			
Unit Level:	Level 3 Unit Credit: 3			
Grading type:	Ungraded			
Grade Descriptors:	Ungraded			
Academic subject content/other:	Academic subject content			
Suggested Assessment details:	Report, including project plan and reflection – 1,000 words			

This unit has 3 learning outcomes.

LEA	RNING OUTCOMES	ASSESSMENT CRITERIA		
The	learner will:	The	learner can:	
1.	Be able to plan a project to promote sustainability within a specific sector.	1.1	 Identify a project to promote sustainability within a chosen sector, justifying your choice. Produce a project plan for own project including: Aims and objectives Time scales Methods Resources required Any health and safety considerations. 	
2.	Be able to carry out a sustainability project.	2.1 2.2	Carry out a sustainability project. Produce a report on the findings of the sustainability project.	
3.	Be able to review the success of a sustainability project.	3.1	Evaluate the extent to which the project has met the aim and objectives.	



3.2	Evaluate the extent to which the project has met the aim and objectives.

Title:	The Fundamentals of Environmental Sustainability		
Unit Code:	QU033880		
Unit Level:	Level 3	Unit Credit:	3
Grading type:	Ungraded		
Grade Descriptors:	Ungraded		
Academic subject content/other:	Academic subject content		
Suggested Assessment details:	Report – 1500 words		

This unit has 4 learning outcomes.

LE	ARNING OUTCOMES	ASSESSMENT CRITERIA	
The	e learner will:	The learner can:	
		1.1	Explain what is meant by sustainability.
1.	Know the importance of sustainability within a specific sector.	1.2	Explain the importance of supporting environmental sustainability within a chosen sector.
2. susta		2.1	Describe environmental issues relevant to a chosen sector.
	Know how environmental	2.2 Describe the impact of the chosen sector on the environment.	
		2.3	Explain how these environmental issues could be minimised within a chosen sector.
		2.4	Analyse factors to consider when working towards environmental sustainability in a chosen sector.

3.	Know how the 3 Rs of sustainability can be applied within the chosen sector.	3.1 3.2	Explain the 3 Rs of sustainability. Analyse ways that a chosen sector can implement the 3 Rs of sustainability.
Understand the importance of waste 4. management within the chosen sector.	4.1	Explain the importance of having a waste management strategy within a chosen sector.	
	4.2	Explain environmental hazards or risks that could be caused by poor waste management within a chosen sector.	

Title:	Writing reports		
Unit Code:	QU026155		
Unit Level:	Level 3	Unit Credit:	3
Grading type:	Ungraded		
Grade Descriptors:	Ungraded		
Academic subject content/other:	Other		
Suggested Assessment	Report plan - Plan		
details:	Presentation of report plan - 2-3 minutes		
	Report - 1000 words		

This unit has 5 learning outcomes.

LEARNING OUTCOMES	ASSESSMENT CRITERIA
The learner will:	The learner can:
 Understand the significance of the report title in determining the content. 	 1.1 Analyse the requirements of the question or task. 1.2 Analyse the main points which must be covered, omitting irrelevant detail.
2 Be able to plan and present the plan for a report.	2.1 Produce a plan for a report.2.2 Present the plan for the report.
3 Be able to structure a report.	 3.1 Produce an introduction which sets out how the subject will be dealt with in the report. 3.2 Use evidence and examples to strengthen information provided in the report. 3.3 Use linking sentences in paragraphs to produce a cohesive report. 3.4 Provide a conclusion which sums up the main findings of the report.
4 Be able to write in an appropriate style.	4.1 Write in a detached, balanced, and objective manner.

	4.2 Write formal English avoiding emotive language and colloquialisms.
5 Know the conventions for acknowledging sources.	5.1 Acknowledge the work of other authors both during the report and in a list of references.5.2 Use recognised approaches for acknowledging sources.

7. What to do next

For existing Centres please contact your named Development Manager or Development Officer.

For organisations, not yet registered as a Gateway Qualifications Centre please contact:

Tel: 01206 911211

Email: enquiries@gatewayqualifications.org.uk

8. Gateway Qualifications

Gateway Qualifications, a not for profit registered charity, is an Awarding Organisation and authorised Access Validating Agency based in Colchester. We work with learning providers and industry experts to design and develop qualifications that benefit the learner and the employer.

We support flexible, responsive and quality assured learning opportunities whether it's in the classroom, at work, in the community or through distance learning.

We are recognised by Ofqual, to design, develop and submit qualifications to the Regulated Qualifications Framework (RQF) and by the Quality Assurance Agency for the development and approval of Access to Higher Education Diplomas.





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