

# Specification

BTEC Specialist qualifications

Edexcel BTEC Level 2 Award in Coastal Zone  
Management (QCF)

First teaching October 2011



Edexcel, a Pearson company, is the UK's largest awarding body, offering academic and vocational qualifications and testing to more than 25,000 schools, colleges, employers and other places of learning in the UK and in over 100 countries worldwide. Qualifications include GCSE, AS and A Level, NVQ and our BTEC suite of vocational qualifications from entry level to BTEC Higher National Diplomas, recognised by employers and higher education institutions worldwide.

We deliver 9.4 million exam scripts each year, with more than 90% of exam papers marked onscreen annually. As part of Pearson, Edexcel continues to invest in cutting-edge technology that has revolutionised the examinations and assessment system. This includes the ability to provide detailed performance data to teachers and students which helps to raise attainment.

*References to third party material made in this specification are made in good faith. Edexcel does not endorse, approve or accept responsibility for the content of materials, which may be subject to change, or any opinions expressed therein. (Material may include textbooks, journals, magazines and other publications and websites.)*

Authorised by Martin Stretton  
Prepared by Matt Gregory

Publications Code BA029598

All the material in this publication is copyright  
© Pearson Education Limited 2011

# **BTEC Specialist qualification title covered by this specification**

## **Edexcel BTEC Level 2 Award in Coastal Zone Management (QCF)**

This qualification has been accredited to the Qualifications and Credit Framework (QCF) and is eligible for public funding as determined by the Department for Education (DfE) under Section 96 of the Learning and Skills Act 2000.

The qualification title listed above features in the funding lists published annually by the DfE and the regularly updated website [www.education.gov.uk/](http://www.education.gov.uk/). The QCF Qualification Number (QN) should be used by centres when they wish to seek public funding for their learners. Each unit within a qualification will also have a QCF unit code.

The QCF qualification and unit codes will appear on learners' final certification documentation.

The QN for the qualification in this publication is:

Edexcel BTEC Level 2 Award in Coastal Zone Management (QCF)                      600/3276/5

This qualification title will appear on learners' certificates. Learners need to be made aware of this when they are recruited by the centre and registered with Edexcel.

# Welcome to the Edexcel BTEC Level 2 Award in Coastal Zone Management (QCF)

We are delighted to introduce our new qualification, available for teaching from October 2011. This qualification has been revised and conforms with the requirements of the new QCF (Qualifications and Credit Framework).

## **Straightforward to implement, teach and assess**

Implementing BTECs couldn't be easier. They are designed to fit easily into your curriculum and can be studied independently or alongside existing qualifications, to suit the interests and aspirations of learners. The clarity of assessment makes grading learner attainment simpler.

## **Engaging for everyone**

Learners of all abilities flourish when they can apply their own knowledge, skills and enthusiasm to a subject. BTEC qualifications make explicit the link between theoretical learning and the world of work by giving learners the opportunity to apply their research, skills and knowledge to work-related contexts and case studies. These applied and practical BTEC approaches give all learners the impetus they need to achieve and the skills they require for workplace or education progression.

## **Recognition**

BTECs are understood and recognised by a large number of organisations in a wide range of sectors. BTEC qualifications are developed with key industry representatives and Sector Skills Councils (SSC) to ensure that they meet employer and learner needs — in this case the Lantra SSC. Many industry and professional bodies offer successful BTEC learners exemptions for their own accredited qualifications.

## **All you need to get started**

To help you off to a flying start, we've developed an enhanced specification that gives you all the information you need to start teaching BTEC qualifications. This includes:

- a framework of equivalencies, so you can see how this qualification compares with other Edexcel vocational qualifications
- information on rules of combination, structure and quality assurance, so you can deliver the qualification with confidence
- explanations of the content's relationship with the learning outcomes
- guidance on assessment, and what the learner must produce to achieve the unit.

Don't forget that we're always here to offer curriculum and qualification updates, local training and network opportunities, advice, guidance and support.

# Contents

---

<b>What are BTEC Specialist qualifications?</b>	<b>1</b>
Edexcel BTEC Level 2 Award	2
Key features of the Edexcel BTEC Level 2 Award in Coastal Zone Management (QCF)	2
National Occupational Standards	2
<b>Edexcel BTEC Level 2 Award in Coastal Zone Management (QCF)</b>	<b>3</b>
<b>Assessment</b>	<b>4</b>
<b>Quality assurance of centres</b>	<b>5</b>
Approval	5
Quality Assurance Guidance	6
<b>Programme design and delivery</b>	<b>6</b>
Mode of delivery	6
Resources	6
Delivery approach	7
Additional and Specialist Learning	7
<b>Access and recruitment</b>	<b>7</b>
Restrictions on learner entry	8
Access arrangements and special considerations	8
Recognition of Prior Learning	8
<b>Unit format</b>	<b>9</b>
Unit title	9
Unit code	9
QCF level	9
Credit value	9
Guided learning hours	9
Unit aim	9
Unit introduction	10

Learning outcomes	10
Assessment criteria	10
Unit content	10
Essential guidance for tutors	11
<b>Unit</b>	<b>13</b>
Unit 1: Introduction to Coastal Zone Management	15
<b>Further information</b>	<b>23</b>
<b>Useful publications</b>	<b>23</b>
How to obtain National Occupational Standards	23
<b>Professional development and training</b>	<b>24</b>
<b>Annexe A</b>	<b>25</b>
The Edexcel/BTEC qualification framework for the environmental and land-based sector	25
<b>Annexe B</b>	<b>27</b>
Wider curriculum mapping	27
<b>Annexe C</b>	<b>29</b>
National Occupational Standards/mapping with NOS	29
<b>Annexe D</b>	<b>31</b>
Glossary of Accreditation Terminology	31
<b>Annexe E</b>	<b>33</b>
BTEC Specialist and Professional qualifications	33

# What are BTEC Specialist qualifications?

---

BTEC Specialist qualifications are qualifications at Entry level to level 3 in the Qualifications and Credit Framework (QCF) and are designed to provide specialist work-related qualifications in a range of sectors. They give learners the knowledge, understanding and skills that they need to prepare for employment. The qualifications also provide career development opportunities for those already in work. Consequently they provide a course of study for full-time or part-time learners in schools, colleges and training centres.

BTEC Specialist qualifications provide much of the underpinning knowledge and understanding for the National Occupational Standards for the sector, where these are appropriate. They are supported by the relevant Standards Setting Body (SSB) or Sector Skills Council (SSC). A number of BTEC Specialist qualifications are recognised as the knowledge components of Apprenticeships Frameworks.

On successful completion of a BTEC Specialist qualification, learners can progress to or within employment and/or continue their study in the same, or related vocational area.

The QCF is a framework which awards credit for qualifications and units and aims to present qualifications in a way that is easy to understand and measure. It enables learners to gain qualifications at their own pace along flexible routes.

There are three sizes of qualification in the QCF:

- Award (1 to 12 credits)
- Certificate (13 to 36 credits)
- Diploma (37 credits and above).

Every unit and qualification in the framework will have a credit value.

The credit value of a unit specifies the number of credits that will be awarded to a learner who has achieved the learning outcomes of the unit.

The credit value of a unit is based on:

- one credit for those learning outcomes achievable in 10 hours of learning
- learning time – defined as the time taken by learners at the level of the unit, on average, to complete the learning outcomes of the unit to the standard determined by the assessment criteria.

The credit value of the unit will remain constant in all contexts, regardless of the assessment method used for the qualification(s) to which it contributes.

Learning time should address all learning (including assessment) relevant to the learning outcomes, regardless of where, when and how the learning has taken place.

## **Edexcel BTEC Level 2 Award**

The Edexcel BTEC Level 2 Award provides an introduction to the skills, qualities and knowledge that may be required for employment in a particular vocational sector.

### **Key features of the Edexcel BTEC Level 2 Award in Coastal Zone Management (QCF)**

The Edexcel BTEC Level 2 in Coastal Zone Management (QCF) has been developed to give learners the opportunity to:

- engage in learning that is relevant to them and which will provide opportunities to develop a range of skills and techniques, personal skills and attributes essential for successful performance in working life
- achieve a nationally recognised level 2 vocationally-related qualification
- progress to employment in a particular vocational sector
- progress to related general and/or vocational qualifications.

### **National Occupational Standards**

Where relevant, Edexcel BTEC level 2 qualifications are designed to provide some of the underpinning knowledge and understanding for the National Occupational Standards (NOS), as well as developing practical skills in preparation for work and possible achievement of NVQs in due course. NOS form the basis of National Vocational Qualifications (NVQs). Edexcel BTEC level 2 (QCF) qualifications do not purport to deliver occupational competence in the sector, which should be demonstrated in a work context.

The unit in this specification identifies links to elements of the NOS in *Annexe C*.

The Edexcel BTEC Level 2 Award in Coastal Zone Management (QCF) relates to the NOS in Environmental Conservation.



# Edexcel BTEC Level 2 Award in Coastal Zone Management (QCF)

---

The Edexcel BTEC Level 2 Award in Coastal Zone Management (QCF) is a 10-credit and 60-guided learning hour (GLH) qualification that consists of one mandatory unit that provides for a combined total of 10 credits.

Edexcel BTEC Level 2 Award in Coastal Zone Management (QCF)			
Unit	Mandatory unit	Credit	Level
1	Introduction to Coastal Zone Management	10	2

# Assessment

---

The unit within this qualification is internally assessed. The qualification is criterion referenced, based on the achievement of all the specified learning outcomes.

To achieve a 'pass' a learner must have successfully passed **all** the assessment criteria.

## Guidance

The purpose of assessment is to ensure that effective learning has taken place to give learners the opportunity to:

- meet the standard determined by the assessment criteria and
- achieve the learning outcomes.

Assignments created by centres should be reliable and fit for purpose, and should be built on the unit assessment criteria. Assessment tasks and activities should enable learners to produce valid, sufficient and reliable evidence that relates directly to the specified criteria. Centres should enable learners to produce evidence in a variety of different forms, including performance observation, presentations and posters, along with projects, or time-constrained assessments.

Centres are encouraged to emphasise the practical application of the assessment criteria, providing a realistic scenario for learners to adopt, and making maximum use of practical activities. The creation of assignments that are fit for purpose is vital to learner achievement and their importance cannot be over-emphasised.

The assessment criteria must be indicated clearly in the assignments briefs. This gives learners focus and helps with internal verification and standardisation processes. It will also help to ensure that learner feedback is specific to the assessment criteria.

When designing assignments briefs, centres are encouraged to identify common topics and themes. A central feature of vocational assessment is that it allows for assessment to be:

- current, ie to reflect the most recent developments and issues
- local, ie to reflect the employment context of the delivering centre
- flexible to reflect learner needs, ie at a time and in a way that matches the learner's requirements so that they can demonstrate achievement.

## Qualification grade

Learners who achieve the minimum eligible credit value will achieve the qualification at pass grade.

In the Edexcel BTEC level 2 Specialist qualifications each unit has a credit value which specifies the number of credits that will be awarded to a learner who has achieved the learning outcomes of the unit. This has been based on:

- one credit for those learning outcomes achievable in 10 hours of learning time
- learning time being defined as the time taken by learners at the level of the unit, on average, to complete the learning outcomes of the unit to the standard determined by the assessment criteria
- the credit value of the unit remaining constant regardless of the method of assessment used or the qualification to which it contributes.

## Quality assurance of centres

---

Edexcel BTEC level 2 qualifications provide a flexible structure for learners enabling programmes of varying credits and combining different levels. For the purposes of quality assurance, all individual qualifications and units are considered as a whole.

Centres delivering the Edexcel BTEC level 2 qualifications must be committed to ensuring the quality of the units and qualifications they deliver, through effective standardisation of assessors and verification of assessor decisions. Centre quality assurance and assessment is monitored and guaranteed by Edexcel.

The Edexcel quality assurance processes will involve:

- centre approval for those centres not already recognised as a centre for BTEC qualifications
- approval for the Edexcel BTEC level 2 qualifications and units
- compulsory Edexcel-provided training and standardisation for internal verifiers and assessors leading to the accreditation of lead internal verifiers via the OSCA system
- quality review of centre verification practice
- centre risk assessment by Edexcel of overarching processes and quality standards
- remedial training and/or assessment sampling for centres identified through standardisation or risk assessment activities as having inadequate quality, assessment or internal verification processes.

## Approval

Centres are required to declare their commitment to ensuring the quality of the programme of learning and providing appropriate assessment opportunities for learners that lead to valid and accurate assessment outcomes. In addition, centres will commit to undertaking defined training and online standardisation activities.

Centres already holding BTEC approval are able to gain qualification approval online. New centres must complete a centre approval application.

## Quality Assurance Guidance

Details of quality assurance for the Edexcel BTEC level 2 qualifications are set out in centre guidance which is published on our website ([www.edexcel.com](http://www.edexcel.com)).

# Programme design and delivery

---

## Mode of delivery

Edexcel does not normally define the mode of delivery for Edexcel BTEC Entry to level 3 qualifications. Centres are free to offer the qualifications using any mode of delivery (such as full time, part time, evening only, distance learning) that meets their learners' needs. Whichever mode of delivery is used, centres must ensure that learners have appropriate access to the resources identified in the specification and to the subject specialists delivering the units. This is particularly important for learners studying for the qualification through open or distance learning.

Learners studying for the qualification on a part-time basis bring with them a wealth of experience that should be utilised to maximum effect by tutors and assessors. The use of assessment evidence drawn from learners' work environments should be encouraged. Those planning the programme should aim to enhance the vocational nature of the qualification by:

- liaising with employers to ensure a course relevant to learners' specific needs
- accessing and using non-confidential data and documents from learners' workplaces
- including sponsoring employers in the delivery of the programme and, where appropriate, in the assessment
- linking with company-based/workplace training programmes
- making full use of the variety of experience of work and life that learners bring to the programme.

## Resources

Edexcel BTEC level 2 qualifications are designed to give learners an understanding of the skills needed for specific vocational sectors. Physical resources need to support the delivery of the programme and the assessment of the learning outcomes, and should therefore normally be of industry standard. Staff delivering programmes and conducting the assessments should be familiar with current practice and standards in the sector concerned. Centres will need to meet any specific resource requirements to gain approval from Edexcel.

The specific resources are required for this qualification have been indicated in the unit specification.

## Delivery approach

It is important that centres develop an approach to teaching and learning that supports the vocational nature of Edexcel BTEC level 2 qualifications and the mode of delivery. Specifications give a balance of practical skill development and knowledge requirements, some of which can be theoretical in nature. Tutors and assessors need to ensure that appropriate links are made between theory and practical application and that the knowledge base is applied to the sector. This requires the development of relevant and up-to-date teaching materials that allow learners to apply their learning to actual events and activity within the sector. Maximum use should be made of learners' experience.

Centres must facilitate access to safe out-of-class learning for learners such as visits to appropriate outdoor environments and work-related land-based sites wherever possible in the context of unit learning outcomes. Centres must ensure all learners are given as much opportunity as possible to experience safe and meaningful out-of-class learning. Such experiences must recognise and fit reasonably with each learners physical and mental abilities.

## Additional and Specialist Learning

Additional and Specialist Learning (ASL) consists of accredited qualifications at the same level as, or one level above a 14-19 Diploma course of study, which have been approved under Section 96 of the Learning and Skills Act 2000. The ASL may include BTEC qualifications which are also available to learners not following a 14-19 Diploma course of study.

ASL qualifications are listed on the 14-19 Diploma Catalogue which is available on the Register of Regulated Qualifications ([www.ofqual.gov.uk](http://www.ofqual.gov.uk)). The catalogue will expand over time as more qualifications are accredited and approved.

Centres undertaking, or preparing to undertake, ASL should refer regularly to the Edexcel website for information regarding additions and the 14-19 Diploma Catalogue for the latest information.

## Access and recruitment

---

Edexcel's policy regarding access to its qualifications is that:

- they should be available to everyone who is capable of reaching the required standards
- they should be free from any barriers that restrict access and progression
- there should be equal opportunities for all wishing to access the qualifications.

Centres are required to recruit learners to BTEC qualifications with integrity. This will include ensuring that applicants have appropriate information and advice about the qualifications and that the qualification will meet their needs. Centres should take appropriate steps to assess each applicant's potential and make a professional judgement about their ability to successfully complete the programme of study and achieve the qualification. This assessment will need to take account of the support available to the learner within the centre during their programme of

study and any specific support that might be necessary to allow the learner to access the assessment for the qualification. Centres should consult Edexcel's policy on learners with particular requirements.

Centres will need to review the entry profile of qualifications and/or experience held by applicants, considering whether this profile shows an ability to progress to a higher level qualification.

## **Restrictions on learner entry**

The Edexcel BTEC Level 2 Award in Coastal Zone Management (QCF) is accredited on the QCF for learners aged 14 and above.

## **Access arrangements and special considerations**

Edexcel's policy on access arrangements and special considerations for BTEC and Edexcel NVQ qualifications aims to enhance access to the qualifications for learners with disabilities and other difficulties (as defined by the 2010 Equality Act) without compromising the assessment of skills, knowledge, understanding or competence.

Further details are given in the policy document *Access Arrangements and Special Considerations for BTEC and Edexcel NVQ Qualifications*, which can be found on the Edexcel website ([www.edexcel.com](http://www.edexcel.com)). This policy replaces the previous Edexcel policy (*Assessment of Vocationally Related Qualifications: Regulations and Guidance Relating to Learners with Special Requirements, 2002*) concerning learners with particular requirements.

## **Recognition of Prior Learning**

Recognition of Prior Learning (RPL) is a method of assessment (leading to the award of credit) that considers whether a learner can demonstrate that they can meet the assessment requirements for a unit through knowledge, understanding or skills they already possess and so do not need to develop through a course of learning.

Edexcel encourages centres to recognise learners' previous achievements and experiences whether at work, home and at leisure, as well as in the classroom. RPL provides a route for the recognition of the achievements resulting from continuous learning.

RPL enables recognition of achievement from a range of activities using any valid assessment methodology. Provided that the assessment requirements of a given unit or qualification have been met, the use of RPL is acceptable for accrediting a unit, units or a whole qualification. Evidence of learning must be sufficient, reliable and valid.

# Unit format

---

All units in Edexcel BTEC level 2 Specialist qualifications have a standard format. The unit format is designed to give guidance on the requirements of the qualification for learners, tutors, assessors and those responsible for monitoring national standards.

Each unit has the following sections.

## Unit title

The unit title is accredited on the QCF and this form of words will appear on the learner's Notification of Performance (NOP).

## Unit code

Each unit is assigned a QCF unit code that appears with the unit title on The Register of Regulated Qualifications ([register.ofqual.gov.uk](http://register.ofqual.gov.uk)).

## QCF level

All units and qualifications within the QCF will have a level assigned to them, which represents the level of achievement. There are nine levels of achievement, from Entry level to level 8. The level of the unit has been informed by the QCF level descriptors and, where appropriate, the NOS and/or other sector/professional benchmarks.

## Credit value

All units have a credit value. The minimum credit value that may be determined for a unit is one, and credits can only be awarded in whole numbers. Learners will be awarded credits for the successful completion of whole units.

## Guided learning hours

Guided learning hours are defined as all the times when a tutor, trainer or facilitator is present to give specific guidance towards the learning aim being studied on a programme. This definition includes lectures, tutorials and supervised study in, for example, open learning centres and learning workshops. It also includes time spent by staff assessing learners' achievements. It does not include time spent by staff in day-to-day marking of assignments or homework where the learner is not present.

## Unit aim

The aim provides a clear summary of the purpose of the unit and is a succinct statement that summarises the learning outcomes of the unit.

## Unit introduction

The unit introduction gives the reader an appreciation of the unit in the vocational setting of the qualification, as well as highlighting the focus of the unit. It gives the reader a snapshot of the unit and the key knowledge, skills and understanding gained while studying the unit. The unit introduction also highlights any links to the appropriate vocational sector by describing how the unit relates to that sector.

## Learning outcomes

The learning outcomes of a unit set out what a learner is expected to know, understand or be able to do as the result of a process of learning.

## Assessment criteria

The assessment criteria of a unit specify the standard a learner is expected to meet to demonstrate that a learning outcome, or set of learning outcomes, has been achieved. The learning outcomes and assessment criteria clearly articulate the learning achievement for which the credit will be awarded at the level assigned to the unit.

## Unit content

The unit content identifies the breadth of knowledge, skills and understanding needed to design and deliver a programme of learning to achieve each of the learning outcomes. This is informed by the underpinning knowledge and understanding requirements of the related National Occupational Standards (NOS), where relevant. The content provides the range of subject material for the programme of learning and specifies the skills, knowledge and understanding required for achievement of the unit.

Each learning outcome is stated in full and then the key phrases or concepts related to that learning outcome are listed in italics followed by the subsequent range of related topics.

### **Relationship between content and assessment criteria**

The learner should have the opportunity to cover all of the unit content.

It is not a requirement of the unit specification that all of the content is assessed. However, the indicative content will need to be covered in a programme of learning in order for learners to be able to meet the standard determined in the assessment criteria.

### **Content structure and terminology**

The information below shows how the unit content is structured and gives the terminology used to explain the different components within the content.

- Learning outcome: this is shown in bold at the beginning of each section of content.
- Italicised sub-heading: it contains a key phrase or concept. This is content which must be covered in the delivery of the unit. Colons mark the end of an italicised sub-heading.



- Elements of content: the elements are in plain text and amplify the sub-heading. The elements must be covered in the delivery of the unit. Semi-colons mark the end of an element.
- Brackets contain amplification of content which must be covered in the delivery of the unit.
- 'eg' is a list of examples, used for indicative amplification of an element (that is, the content specified in this amplification could be covered or could be replaced by other, similar material).

## Essential guidance for tutors

This section gives tutors additional guidance and amplification to aid understanding and a consistent level of delivery and assessment. It is divided into the following key sections.

- *Delivery* – explains the content's relationship to the learning outcomes and offers guidance about possible approaches to delivery. This section is based on the more usual delivery modes but is not intended to rule out alternative approaches.
- *Assessment* – gives amplification about the nature and type of evidence that learners need to produce in order to achieve the unit. This section should be read in conjunction with the assessment criteria.
- *Essential resources* – identifies any specialist resources needed to allow learners to generate the evidence required for each unit. The centre will be asked to ensure that any requirements are in place when it seeks approval from Edexcel to offer the qualification.
- *Indicative resource materials* – gives a list of learner resource material that benchmarks the level of study.



# Unit

---

Unit 1: Introduction to Coastal Zone Management

15



# Unit 1: Introduction to Coastal Zone Management

**Unit code:** M/600/9161

**QCF level 2:** BTEC Specialist

**Credit value:** 10

**Guided learning hours:** 60

---

## Unit aim

The aim of this unit is to ensure learners understand the features of the coastal zone and the different techniques for managing coastal habitats.

## Unit introduction

The interface between the land and sea, known as the coastal zone, is vital for humans and wildlife. Over 40 per cent of the world's population lives in the coastal zone and most of the commercial goods that are moved around the world are handled in seaside ports. In addition, a large number of other activities take place within the coastal zone, for example tourism and fishing. Many wildlife sites, particularly those managing migrating waterfowl, are found along the coast.

Climate change is another major issue affecting the way that coastal areas are utilised. Due to the abundance of available renewable energy from wave, tidal and onshore and offshore wind sources, many new sites may be developed.

This unit introduces the different features found along the coast, such as sand dunes, cliffs and rocky shores. In addition, learners will investigate some of the threats to coastal environments and some of the solutions that are being developed to control them.

The unit has a strong practical element and learners will be able to study a variety of coastal features as well as carry out practical coastal management work.

On completion of this unit, learners will be familiar with a variety of coastal habitats and be able to assess threats to coastal wildlife. In addition to considering different management solutions to coastal threats, learners will develop the practical skills required to carry out management techniques.

Coastal environments can be hazardous, with rapidly advancing tides, changing weather conditions and substrates, such as soft mud, which make walking difficult. Throughout the unit learners will be made aware of the potential hazards and the importance of planning coastal field trips well.

## Learning outcomes and assessment criteria

In order to pass this unit, the evidence that the learner presents for assessment needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria determine the standard required to achieve the unit.

### On completion of this unit a learner should:

Learning outcomes	Assessment criteria
1 Know features of the coastal zone	1.1 Define the coastal zone 1.2 Describe physical features of a selected coastal zone 1.3 Identify common plant and animal species of a selected coastal zone
2 Know the threats to the coastal zone	2.1 Describe common natural threats to the coastline of the UK 2.2 Outline common human threats to the coastline of the UK
3 Understand techniques for managing the coastal zone	3.1 Evaluate coastal zone management techniques – <ul style="list-style-type: none"> <li>• Hard engineering</li> <li>• Soft engineering</li> </ul>
4 Be able to carry out practical management work on coastal habitats	4.1 Monitor an area of coastal habitat 4.2 Carry out practical management of coastal habitats safely

## Unit content

---

### 1 Know features of the coastal zone

*Coastal zone habitats:* eg sand dunes, salt marsh, estuaries, sea cliffs, sandy beaches, rocky shores, islands, mudflats, lagoons, shingle

*Physical features:* sediment size; profiles; beach formations; sea cliffs; estuaries; features created through erosion eg caves, sea stacks, blowholes

*Common plant and animal species:* marine species: fish, crustaceans, molluscs, invertebrates, seaweeds; shingle and shore-based species eg seaweeds, invertebrates, sand-fixing plants, shingle nesting birds; cliff and cliff-top species eg salt-tolerant plants, cliff nesting birds, mammals, invertebrates

### 2 Know the threats to the coastal zone

*Human threats:* tourism eg mountain biking, walking/hiking, pet exercising, caravan parks, marinas, campsites; transport, industrial and energy generating activities eg shipping, dredging, fishing activities, wind generation, wave power generation, tidal current turbines

*Natural threats:* erosion (sea, wind); sediment movement and deposits; sea level rise; ocean warming; changes in ocean currents; tidal surges

*Effects of damaging activities:* habitat loss; trampling; soil compaction; reduction in sediment supply; lowering of water table; effects of pollution eg domestic sewage, toxic and heavy metals; flooding

### 3 Understand techniques for managing the coastal zone

*Techniques:* practical conservation eg planting windbreaks; visitor management techniques (access control, construction of boardwalks); hard engineering eg rock or gabion headlands, artificial reefs, groynes, seawalls; soft engineering eg dune grass planting, dune fencing, beach recycling, sand bag structures, beach nourishment; health and safety; legislation and codes of practice

### 4 Be able to carry out practical management work on coastal habitats

*Monitoring:* review species numbers and types; monitor for signs of erosion; monitor human influence eg visitor counts and type, visitor behaviour, sea traffic flow and patterns

*Practical management techniques:* visitor management techniques eg fencing, construction of boardwalks, steps or bridges, erection of signposts; soft defences eg dune grass planting, use of brash etc to control erosion, planting windbreaks, construction of geotextile or chestnut paling barriers; health and safety; legislation and codes of practice

## Essential guidance for tutors

---

### Delivery

The purpose of this unit is to familiarise learners with different aspects of the coastal zone. Learners will observe a variety of coastal habitats and be introduced to the techniques available to manage and protect them. Although there will be some classroom sessions, much of the content will be delivered through visits to coastal habitats and tourism sites. If possible, visits led by local professionals, such as a flooding engineer from the Environment Agency or a local authority coast protection officer, would benefit learners. These would provide excellent opportunities to discuss threats to coastal habitats and the different management techniques used to minimise their impact.

Within a classroom setting this unit lends itself to the use of interactive teaching techniques. Some of the unit content will be familiar to learners and sessions can be built around group discussions of personal experiences of trips to a coastal zone. Once the basic concepts have been explained, matching and labelling activities could be used to discuss threats, their effects and possible solutions.

In common with other habitat units, seasonality may affect delivery of this unit. Coastal habitats are best studied in the spring and early summer, particularly when specialist plant species are being identified. Some threats, such as landslips, are often most dramatic following winter storms, while other threats, such as tourism, are most evident during the warmer months.

For centres without easy access to coastal environments, much of the content can be covered using classroom discussion, independent research and the use of interactive resources, but it is essential this is supplemented by at least one substantive field trip to enable learners to carry out practical activities.

As there are numerous hazards associated with coastal habitats, priority must be given to health and safety considerations and the general welfare of learners. Before any activities are carried out in the tidal zone, tide tables must be consulted and mobile phone signals checked to ensure communication with the emergency services. Learners must be made aware of their responsibilities for maintaining the safety of themselves and others and be fully informed of the consequences of irresponsible behaviour whilst on coastal sites.

Wildlife should also be considered and it is important that learners develop an appreciation for the sensitivity of life in coastal environments. Most plant species have adapted to light disturbance, but care should be taken not to damage sensitive species. Some field studies may involve the capture and handling of animals. Marine species which depend on moist conditions should be observed for a short period only before being returned to their natural environment. Slow moving or stationary species, such as limpets, should be studied in situ and not removed from their substrate.



## Outline learning plan

The outline learning plan has been included in this unit as guidance and can be used in conjunction with the programme of suggested assignments.

The outline learning plan gives an indication of the volume of learning it would take the average learner to achieve the learning outcomes. It is indicative and is one way of achieving the credit value.

Learning time should address all learning (including assessment) relevant to the learning outcomes, regardless of where, when and how the learning has taken place.

Topic and suggested assignments/activities and/assessment
<b>Assignment 1: Habitats in the Coastal Zone</b> (AC 1.1, 1.2, 1.3)
Tutor introduces the assignment brief.
Introduce types of coastal habitats and key species.
Discussion of physical processes and effects on coastal habitats.
Visit coastal habitats and identify key species in the field.
Discuss adaptations of species to coastal environments. Includes time allocated for independent research.
Interaction of species living within the coastal zone.
<b>Assignment 2: Threats to Coastal Habitats</b> (AC 2.1, 2.2, 3.1)
Tutor introduces the assignment brief.
Discuss threats to coastal habitats and their effects.
Investigate threats to selected coastal sites. Includes time for independent research.
Undertake visits to see the management of important coastal sites.
Discuss effectiveness of the different management practices observed.
Evaluate different solutions to the threats.
<b>Assignment 3: Practical Habitat Management</b> (AC 4.1, 4.2)
Tutor introduces the assignment brief.
Carry out site monitoring.
Undertake practical habitat management work.

## Assessment

For AC 1.1, learners are expected to describe the concept of the coastal zone. This could be a pictorial presentation such as an annotated poster showing a typical coastal zone area.

For AC 1.2, learners should describe the physical features of a coastal zone. This can be selected by the tutor or chosen by learners in agreement with the tutor. The selected area may contain one or more coastal habitats. Evidence could be an illustrated report or an annotated poster.

For AC 1.3, learners are required to identify common plant and animal species found in a selected coastal zone habitat. This can be carried out by learners working in small groups using suitable field identification guides. The site chosen can be the same as for P2. Suitable evidence could be a practical observation record or an addition to the evidence presented for P2.

For AC 2.1 and 2.2, learners need to describe common natural and human threats to the UK coastline. Learners should describe the relevant effects and their potential impact on the coastal zone. Evidence could be an illustrated report, an annotated poster or an illustrated leaflet.

For AC 3.1, learners are expected to evaluate coastal zone management techniques. The evaluation criteria to be used should be clarified by the tutor as part of the assessment brief. Evidence could be an illustrated report or a leaflet.

For AC 4.1, learners will need to monitor an area of coastal habitat. The habitat can be chosen by the learner in agreement with the tutor or it can be selected by the tutor to ensure a consistent level of assessment. Suitable evidence could be in the form of an annotated poster or an illustrated report.

For AC 4.2, learners will need to carry out practical management tasks on coastal habitats. A minimum of two different habitat management tasks should be included in the assessment. The site chosen and the tasks to be completed should be agreed between learners and the tutor before learners begin the tasks. Evidence could be in the form of a practical observation record.

#### Programme of suggested assignments

The following table shows a programme of suggested assignments that cover the assessment criteria. This is **for guidance** and it is recommended that centres either write their own assignments or adapt any Edexcel assignments to meet local needs and resources.

Criteria covered	Assignment title	Scenario	Assessment method
1.1, 1.2, 1.3	Habitats in the Coastal Zone	You are working with a local wildlife trust on a site in the coastal zone. They have asked you to put together some information that could be used in their interpretive displays of coastal habitats. Include a description of the coastal zone and its features, and the common plant and animal species found within it.	Annotated poster. Illustrated report.

Criteria covered	Assignment title	Scenario	Assessment method
2.1, 2.2, 3.1	Threats to Coastal Habitats	You are helping the National Trust warden to prepare a talk on the coast. Create a report which identifies the common human and natural threats to the UK coastline and which evaluates the management techniques used to reduce these threats. Use examples of the threats at three selected sites.	Illustrated report.
4.1, 4.2	Practical Habitat Management	You have been asked to assist with the planning and implementation of some management work on a coastal site.	Practical observation record.

### Essential resources

Learners will need access to different coastal environments to carry out field work. They will also need access to the internet to obtain information for coastal management case studies. Appropriate tools and equipment will be required for learners to carry out their practical habitat management work.

### Indicative resource materials

#### Textbooks

Beatley T, Brower D J and Schwab AK – *An Introduction to Coastal Zone Management* (Kogan Page, 2002) ISBN 1559639156

Brooks A and Agate E – *Sand Dunes: A Practical Handbook* (BTCV, 2001) ISBN 094675232X

Brown K, Tompkins E and Adger N – *Making Waves: Integrating Coastal Conservation and Development* (Earthscan Publications Ltd, 2002) ISBN 1853839124

French P – *Coastal and Estuarine Management* (Routledge, 1997) ISBN 0415137594

Hill M – *Coasts and Coastal Management* (Hodder Murray, 2004) ISBN 0340846380

Kay R and Alder, J – *Coastal Planning and Management* (Taylor & Francis, 2005) ISBN 0415317738

Little C – *The Biology of Soft Shores and Estuaries* (Oxford University Press, 2000)  
ISBN 0198504268

Little C and Kitching JA – *The Biology of Rocky Shores* (Oxford University Press,  
1996) ISBN 0198549350

Soothill E and Thomas M – *Natural History of Britain's Coasts* (New Orchard, 1993)  
ISBN 1850792224

Stott T, Hindson J and Crump R – *Sand Dunes, A Practical Coursework Guide* (Field  
Studies Council, (1993) ISBN 1851538259

Waugh D – *Geography: An Integrated Approach* (Nelson Thornes, 2000)  
ISBN 9780174447061

### **Journals**

*British Wildlife*

### **Websites**

<a href="http://www.defra.gov.uk">www.defra.gov.uk</a>	Department for Environment Food and Rural Affairs
<a href="http://www.eclife.naturalengland.org.uk">www.eclife.naturalengland.org.uk</a>	Living with the sea project
<a href="http://www.environment-agency.gov.uk">www.environment-agency.gov.uk</a>	Environment Agency
<a href="http://www.mcsuk.org">www.mcsuk.org</a>	Marine Conservation Society
<a href="http://www.naturalengland.org.uk">www.naturalengland.org.uk</a>	Natural England
<a href="http://www.saltmarshmanual.co.uk">www.saltmarshmanual.co.uk</a>	Salt marsh management
<a href="http://www.scopac.org.uk">www.scopac.org.uk</a>	SCOPAC (Standing Conference on Problems Affecting the Coastline)

## Further information

---

For further information please call Customer Services on 0844 576 0026 (calls may be recorded for quality and training purposes) or visit our website ([www.edexcel.com](http://www.edexcel.com)).

## Useful publications

---

Related information and publications include:

- *Guidance for Centres Offering Edexcel/BTEC QCF Accredited Programmes* (Edexcel, distributed to centres annually)
- Functional Skills publications – specifications, tutor support materials and question papers
- *Regulatory arrangements for the Qualification and Credit Framework* (published by Ofqual) August 2008
- the current Edexcel publications catalogue and update catalogue.

Edexcel publications concerning the Quality Assurance System and the internal and external verification of vocationally related programmes can be found on the Edexcel website and in the Edexcel publications catalogue.

NB: Some of our publications are priced. There is also a charge for postage and packing. Please check the cost when you order.

## How to obtain National Occupational Standards

Please contact:

Lantra  
Lantra House  
Stoneleigh Park  
Coventry  
CV8 2LG

Telephone: 02476 696996  
Email: [standardsandquals@lantra.co.uk](mailto:standardsandquals@lantra.co.uk)  
Website: [www.lantra.co.uk](http://www.lantra.co.uk)

# Professional development and training

---

Edexcel supports UK and international customers with training related to BTEC qualifications. This support is available through a choice of training options offered in our published training directory or through customised training at your centre.

The support we offer focuses on a range of issues including:

- planning for the delivery of a new programme
- planning for assessment and grading
- developing effective assignments
- building your team and teamwork skills
- developing student-centred learning and teaching approaches
- building Functional Skills into your programme
- building in effective and efficient quality assurance systems.

The national programme of training we offer can be viewed on our website ([www.edexcel.com/training](http://www.edexcel.com/training)). You can request customised training through the website or by contacting one of our advisers in the Training from Edexcel team via Customer Services to discuss your training needs.

Our customer service numbers are:

BTEC and NVQ	0844 576 0026
GCSE	0844 576 0027
GCE	0844 576 0025
The Diploma	0844 576 0028
DiDA and other qualifications	0844 576 0031

Calls may be recorded for training purposes.

The training we provide:

- is active – ideas are developed and applied
- is designed to be supportive and thought provoking
- builds on best practice.

Our training is underpinned by the LSIS standards for those preparing to teach and for those seeking evidence for their continuing professional development.

## Annexe A

### The Edexcel/BTEC qualification framework for the environmental and land-based sector

Progression opportunities within the framework.

Level	General qualifications	BTEC full vocationally-related qualifications	BTEC specialist courses	NVQ/occupational
5		Edexcel BTEC Level 5 HND Diplomas in Animal Management, Environmental Conservation, Horse Management, Horticulture (QCF)		
4		Edexcel BTEC Level 4 HNC Diplomas in Animal Management, Environmental Conservation, Horse Management, Horticulture (QCF)		
3	Edexcel GCE AS/A2 in Biology	Edexcel BTEC Level 3 Certificates, Subsidiary Diplomas, Diploma and Extended Diplomas in Agriculture, Animal Management, Blacksmithing and Metalworking, Countryside Management, Fish Management, Floristry, Forestry and Arboriculture, Horse Management, Horticulture, Land- based Technology (QCF)		Edexcel Level 3 Diploma in Work-based Environmental Conservation (QCF) Edexcel Level 3 Award, Certificate and Diploma in Work-based Animal Care (QCF)

Level	General qualifications	BTEC full vocationally-related qualifications	BTEC specialist courses	NVQ/occupational
2	Edexcel GCSE in Biology	Edexcel BTEC Level 2 Certificate, Extended Certificate and Diploma in Agriculture, Animal Care, Blacksmithing and Metalworking, Countryside and Environment, Fish Husbandry, Floristry, Horse Care, Horticulture, Land-based Technology (QCF)		Edexcel Level 2 Diploma in Work-based Environmental Conservation (QCF) Edexcel Level 2 Award, Certificate and Diploma in Work-based Animal Care (QCF)
1		BTEC Foundation Learning in Land-based Studies (QCF)		Edexcel Level 1 Award, Certificate and Diploma in Work-based Animal Care (QCF)
Entry	Edexcel Entry Level Certificate in Science	BTEC Foundation Learning in Land-based Studies (QCF)		



# Annexe B

---

## Wider curriculum mapping

Study of the Edexcel BTEC level 2 qualifications gives learners opportunities to develop an understanding of spiritual, moral, ethical, social and cultural issues as well as an awareness of citizenship, environmental issues, European developments, health and safety considerations and equal opportunities issues.

### **Spiritual, moral, ethical, social and cultural issues**

Throughout the delivery of this qualification learners will have the opportunity to actively participate in different kinds of decision making. They will have to consider fair and unfair situations and explore how to resolve conflict. Working in small groups they will learn how to respect and value others' beliefs, backgrounds and traditions.

### **Citizenship**

Learners undertaking this qualification will have the opportunity to develop their understanding of citizenship issues.

### **Environmental issues**

Developing a responsible attitude towards the care of the environment is an integral part of this qualification. Learners are encouraged to minimise waste and discuss controversial issues.

### **European developments**

Much of the content of the qualification applies throughout Europe, even though the delivery is in a UK context.

### **Health and safety considerations**

Health and safety is embedded within the unit in this qualification. Learners will consider their own health and safety at work, how to identify risks and hazards and how to minimise those risks.

### **Equal opportunities issues**

There will be opportunities throughout this qualification to explore different kinds of rights and how these affect both individuals and communities for example learners will consider their rights at work and the rights of employers and how these rights affect the work community.



# Annexe C

---

## National Occupational Standards/mapping with NOS

The grid below maps the knowledge covered in the Edexcel BTEC Level 2 Specialist qualifications in Coastal Zone Management against the underpinning knowledge of the National Occupational Standards in Environmental Conservation.

### KEY

# indicates partial coverage of the NVQ unit

a blank space indicates no coverage of the underpinning knowledge

Units	1
NOS in Environmental Conservation	
CU87.1	#
CU87.2	#
EC34.1	#



## Annexe D

### Glossary of Accreditation Terminology

The following is a table of terms related to accreditation of this qualification.

<b>Accreditation start/end date</b>	The first/last dates that Edexcel can register learners for a qualification.
<b>Certification end date</b>	The last date on which a certificate may be issued by Edexcel.
<b>Credit value</b>	All units have a credit value. The minimum credit value that may be determined for a unit is one, and credits can only be awarded in whole numbers. Learners will be awarded credits for the successful completion of whole units.
<b>Guided Learning Hours (GLH)</b>	Guided learning hours are defined as all the times when a tutor, trainer or facilitator is present to give specific guidance towards the learning aim being studied on a programme. This definition includes lectures, tutorials and supervised study in, for example, open learning centres and learning workshops. It also includes time spent by staff assessing learners' achievements. It does not include time spent by staff in day-to-day marking of assignments or homework where the learner is not present.
<b>Learning Aims Database</b>	Link to the Learning Aims Database, which features detailed funding information by specific learning aim reference.
<b>Learning Aim Reference</b>	Unique reference number given to the qualification by the funding authorities on accreditation.
<b>Level</b>	The level at which the qualification is positioned in the Qualifications and Credit Framework (QCF).
<b>Performance tables</b>	This qualifications is listed on the Department for Education (DfE) website School and College Achievement and Attainment Tables (SCAAT) as performance indicators for schools and colleges.
<b>Qualifications Number (QN)</b>	Unique reference number given to the qualification by the regulatory authorities on accreditation.
<b>Register of Regulated Qualifications</b>	Link to the entry on the Register of Regulated Qualifications for a particular qualification. This database features detailed accreditation information for the particular qualification (see <a href="http://register.ofqual.gov.uk">register.ofqual.gov.uk</a> ).
<b>Section 96</b>	Section 96 is a section of the Learning and Skills Act 2000. This shows for which age ranges the qualification is publicly funded for under-19 learners.
<b>Title</b>	The accredited title of the qualification.



## Annexe E

### BTEC Specialist and Professional qualifications

BTEC qualifications on the NQF	Level	BTEC Specialist and Professional qualifications on the QCF	BTEC qualification suites on the QCF
<b>BTEC Level 7 Advanced Professional qualifications</b> BTEC Advanced Professional Award, Certificate and Diploma	<b>7</b>	<b>BTEC Level 7 Professional qualifications</b> BTEC Level 7 Award, Certificate, Extended Certificate and Diploma	
<b>BTEC Level 6 Professional qualifications</b> BTEC Professional Award, Certificate and Diploma	<b>6</b>	<b>BTEC Level 6 Professional qualifications</b> BTEC Level 6 Award, Certificate, Extended Certificate and Diploma	
<b>BTEC Level 5 Professional qualifications</b> BTEC Professional Award, Certificate and Diploma	<b>5</b>	<b>BTEC Level 5 Professional qualifications</b> BTEC Level 5 Award, Certificate, Extended Certificate and Diploma	<b>BTEC Level 5 Higher Nationals</b> BTEC Level 5 HND Diploma
<b>BTEC Level 4 Professional qualifications</b> BTEC Professional Award, Certificate and Diploma	<b>4</b>	<b>BTEC Level 4 Professional qualifications</b> BTEC Level 4 Award, Certificate, Extended Certificate and Diploma	<b>BTEC Level 4 Higher Nationals</b> BTEC Level 4 HNC Diploma
<b>BTEC Level 3 qualifications</b> BTEC Award, Certificate, Extended Certificate and Diploma	<b>3</b>	<b>BTEC Level 3 Specialist qualifications</b> BTEC Level 3 Award, Certificate, Extended Certificate and Diploma	<b>BTEC Level 3 Nationals</b> BTEC Level 3 Certificate, Subsidiary Diploma, Diploma and Extended Diploma

<b>BTEC qualifications on the NQF</b>	<b>Level</b>	<b>BTEC Specialist and Professional qualifications on the QCF</b>	<b>BTEC qualification suites on the QCF</b>
<b>BTEC Level 2 qualifications</b> BTEC Award, Certificate, Extended Certificate and Diploma	<b>2</b>	<b>BTEC Level 2 Specialist qualifications</b> BTEC Level 2 Award, Certificate, Extended Certificate and Diploma	<b>BTEC Level 2 Firsts</b> BTEC Level 2 Certificate, Extended Certificate and Diploma
<b>BTEC Level 1 qualifications</b> BTEC Award, Certificate, Extended Certificate and Diploma	<b>1</b>	<b>BTEC Level 1 Specialist qualifications</b> BTEC Level 1 Award, Certificate, Extended Certificate and Diploma	<b>BTEC Level 1 Qualifications</b> BTEC Level 1 Award, Certificate and Diploma (vocational component of Foundation Learning)
	<b>E</b>	<b>BTEC Entry Level Specialist qualifications</b> BTEC Entry Level Award, Certificate, Extended Certificate and Diploma	<b>BTEC Entry Level Qualifications (E3)</b> BTEC Entry Level 3 Award, Certificate and Diploma (vocational component of Foundation Learning)

**NQF** = National Qualifications Framework

**QCF** = Qualifications and Credit Framework

For most qualifications on the **NQF**, the accreditation end date is normally 31 August 2010 or 31 December 2010.

For qualifications on the **QCF**, the accreditation start date is usually 1 September 2010 or 1 January 2011.

<b>QCF qualification sizes</b>	
<b>Award</b>	1-12 credits
<b>Certificate</b>	13-36 credits
<b>Diploma</b>	37+ credits



**Publications Code BA029598 October 2011**

**For more information on Edexcel and BTEC qualifications please  
visit our website: [www.edexcel.com](http://www.edexcel.com)**

**BTEC is a registered trademark of Pearson Education Limited**

**Pearson Education Limited. Registered in England and Wales No. 872828  
Registered Office: Edinburgh Gate, Harlow, Essex CM20 2JE. VAT Reg No 278537121**