

Unit 23: Understanding Fishery Management

Unit code: R/600/9623

QCF Level 3: BTEC National

Credit value: 10

Guided learning hours: 60

● Aim and purpose

This unit aims to introduce learners to fishery skills and management and how these can be applied in practice. It is designed for learners in centre-based settings looking to progress into the sector or onto further/higher education.

● Unit introduction

It is important that freshwater habitats are maintained and improved and fishery management activities play a crucial role in helping to achieve this.

This unit will help learners to develop a general understanding of the principles and techniques of freshwater sport fishery management. It will enable learners to appreciate freshwater habitat types and the species that live within them, to understand the UK sports fishery industry and to develop practical fishery management skills.

Learners will consider the main mammal and avian predators of fish found in the UK, identifying the impact they can have at a selected sports fishery and the legal control measures which fishery managers can use. They will cover the methods commonly used to maintain and improve fish stocks in managed wild and sports freshwater fisheries and look at methods commonly used to assess fish stocks and manage fishery banks and aquatic (including bankside) vegetation. They will explore the business requirements of sports fishery businesses and the roles of those employed in them.

● Learning outcomes

On completion of this unit a learner should:

- 1 Know the main mammal and avian predators of fish and the methods used to legally control them
- 2 Know commonly used freshwater fish stock maintenance and improvement methods
- 3 Be able to use suitable methods of sport fishery bank maintenance, stock assessment and vegetation control
- 4 Understand the basic business requirements of a sport fishery.

Unit content

1 Know the main mammal and avian predators of fish and the methods used to legally control them

Main mammal and avian predators: otter, mink, cormorant, grey heron, gooseander, mersanger; impacts on fish populations and fisheries; lifecycles; signs and evidence eg footprints, fish wounds, spraints; legal control methods eg trapping, scaring, shooting; licences to control; relevant current legislation, codes of practice; the organisations involved eg Defra, Angling Trust, Wildlife Trust, RSPB

2 Know commonly used freshwater fish stock maintenance and improvement methods

Stock maintenance and improvement: species stocked in coarse and game fisheries; factors involved in stock maintenance and improvement, eg stocking policy, stocking density, fishery objectives, source of stock fish, fish health, angler success, predator control; problems of overpopulation, competition and poor recruitment; the status of wild stocks and causes of decline; habitat and stock improvement techniques; the importance of aquatic invertebrates to sports fisheries; basic aquacultural techniques found in the UK; key factors associated with fishery design including the principles of basic standing water bodies; the methods used to regulate angling; relevant current legislation, codes of practice and bylaws

3 Be able to use suitable methods of sport fishery bank maintenance, stock assessment and vegetation control

Bank maintenance: use of hard landscaping techniques to restore banks and prevent erosion; use of soft landscaping techniques to restore banks and prevent erosion; relevant current legislation

Stock assessment methods: methods of fish capture including their advantages and disadvantages in different situations (rod and line, seine nets, fyke nets, electro-fishing apparatus and piscicides); methods used to estimate fish populations, eg tagging and marking techniques; use of hydroacoustics and telemetry in stock monitoring; health and safety issues, eg drowning, electrocution and Weil's disease; risk assessment; relevant current legislation

Vegetation control: reasons for aquatic weed control; environmental implications of aquatic weed control; primary methods of aquatic weed and silt control (cutting by hand, machine cutting, scour boards, herbicides, straw bales, shading and the use of herbivorous fish); reasons for controlling bankside vegetation; commonly used methods to control bankside vegetation (hand-held tools and strimmers); environmental impact of controlling bankside vegetation during the bird nesting season; relevant current legislation, codes of practice and bylaws

4 Understand the basic business requirements of a sport fishery

Business requirements of a sports fishery: major factors affecting financial viability of a sports fishery, eg costs, ticket pricing policy, angler types and numbers, angler success, competition, marketing, stock availability, location, fish disease; issues affecting the public's perception of sport fisheries; stocking requirements for managed coarse and game fisheries; stock prices and sources; fishery rules and their implementation including dealing with anglers and members of the general public; facilities required by anglers; major government and non-governmental organisations relevant to sports fishery management; relevant planning legislation; the size and nature of the industry; relevant current legislation

Facilities: angling pegs; car parks; angling lodge; café; tackle shop; toilets; seating; information boards; footpaths; life rings; net dips; shelters

Duties of those involved in sports fishery management: the annual duties of water keepers, bailiffs, fisheries officers and other employees (depending on locality); legal predator and poacher control techniques; the signs of ill health in fish; relevant current legislation, codes of practice and bylaws; health and safety

Assessment and grading 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 for a pass grade describe the level of achievement required to pass this unit.

Assessment and grading criteria		
To achieve a pass grade the evidence must show that the learner is able to:	To achieve a merit grade the evidence must show that, in addition to the pass criteria, the learner is able to:	To achieve a distinction grade the evidence must show that, in addition to the pass and merit criteria, the learner is able to:
P1 identify the main avian predators of fish at a selected sport fishery [IE]	M1 describe the legal control methods for avian and mammal predators at a selected sport fishery	D1 discuss the potential impact of avian and mammal predators at a selected sport fishery
P2 identify the main mammal predators of fish at a selected sports fishery [IE]		
P3 explain factors involved in the maintenance improvement of selected sport fishery stock	M2 discuss the status of a declining wild game fish species and wild coarse fish species identifying the causes of their decline and the methods used to rectify this	D2 evaluate the effectiveness of current legislation on the maintenance and improvement of fish stocks
P4 explain factors involved in the improvement of selected sport fishery stock		
P5 safely carry out practical bank maintenance [TW]	M3 undertake risk assessments for a practical bank maintenance task, a fish stock assessment task and a vegetation control task	D3 discuss the environmental impact and fish and welfare issues of the practical bank maintenance task, the fish stock assessment task and the vegetation control task
P6 safely carry out fish stock assessment [TW]		
P7 safely carry out practical vegetation control [TW]		
P8 explain major factors that influence the financial viability of a given sports fishery business [CT]	M4 explain the need for the variety of facilities at a selected sports fishery.	D4 discuss the duties undertaken at a given sports fishery over a 12-month period.
P9 discuss the management of a given sports fishery.		

PLTS: This summary references where applicable in the pass criteria, in the square brackets, the elements of the personal, learning and thinking skills. It identifies opportunities for learners to demonstrate effective application of the referenced elements of the skills.

Key	IE – independent enquirers CT – creative thinkers	RL – reflective learners TW – team workers	SM – self-managers EP – effective participators
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Essential guidance for tutors

Delivery

Tutors delivering this unit have opportunities to use as wide a range of techniques as possible. Lectures, discussions, seminar presentations, site visits, supervised river and/or stillwater fishery practicals, research using the internet and/or library resources and the use of personal and/or industrial experience would all be suitable. Delivery should stimulate, motivate, educate and enthuse learners.

Work placements should be regularly monitored in order to ensure the quality of the learning experience. It would be beneficial if learners and supervisors were made aware of the requirements of this unit before any work-related activities are undertaken so that naturally occurring evidence can be collected at the time. For example, learners may have the opportunity to undertake bank maintenance or aquatic vegetation control work and they should ask for observation records and/or witness statements to be provided as evidence of this. Guidance on the use of observation records and witness statements is provided on the Edexcel website.

Whichever delivery methods are used, it is essential that tutors stress the importance of animal and fish welfare, sound environmental management and the need to manage the resource using legal methods.

Health and safety issues relating to working in and around water must be stressed and reinforced regularly and risk assessments must be undertaken before any practical activities. Adequate personal protective equipment (PPE) must be provided and used following the production of suitable risk assessments. In addition, tutors must ensure that rescue equipment is available on the bankside.

Tutors should consider integrating the delivery, private study and assessment for this unit with other relevant units and assessment instruments learners are taking as part of their programme of study.

Learning outcome 1 covers the main avian and mammal predators of fish in the UK. This could be delivered through formal lectures, practical sports fishery work, independent learner research, group discussions, site visits and talks by guest speakers. Learners need to be able to identify the main predators of fish and the legal ways in which they can be controlled, explaining the possible impact on a given fishery if they were not controlled. Learners should apply the theory of predator control at local sports fisheries.

Learning outcome 2 looks at the commonly used freshwater fish stock maintenance and improvement methods. Learners will look at how stocked fish should be managed at a given fishery to ensure they remain healthy. Learners will also look at the decline of specified wild fish stocks, for example salmon, sea trout and the eel, and identify the measures undertaken nationally and locally to halt this decline. This learning outcome could be delivered using formal lectures, practical sports fishery work, independent learner research, group discussions, site visits and talks by guest speakers. As with learning outcome 1, tutors should provide a general overview of the methods used, reinforced where appropriate by the use of local sports fisheries to provide specific examples. Visiting expert speakers could add to the relevance of the subject for learners. For example, a sports fishery manager could talk about their work and the methods they use. An Environment Agency fishery officer could talk about the decline of a specific species of fish and the work they are undertaking to halt this decline.

Learning outcome 3 focuses on the methods used to maintain fishery banks, those used to assess the fish stock and those used to control vegetation (aquatic and bankside) within sports fisheries. Learners need to complete risk assessments for the work to be undertaken identifying the environmental, fish and animal welfare issues relating to the work being carried out. This learning outcome could be delivered by short formal lectures, practical demonstrations, practical sports fishery work, site visits and talks by guest speakers. As with learning outcomes 1 and 2, tutors should provide a general overview of the methods used, reinforced by the use of local sports fisheries to provide specific examples where appropriate. Visiting expert speakers could add to the relevance of the subject for learners. For example, a sports fishery manager could talk about their work and the methods they use.

Learning outcome 4 covers the basic business requirements of a sports fishery and the typical duties of those who manage them. As with learning outcomes 1, 2 and 3, tutors should provide a general overview of the business requirements, reinforced where appropriate by the use of local sport fisheries to provide specific examples. Regional differences, for example in the duties of employees, legislation and bylaws, should be discussed to raise learner awareness of these issues. This learning outcome could be delivered using formal lectures, independent learner research, group discussions, site visits and talks by guest speakers.

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
Introduction and overview of the unit.
Assignment 1: Predator Control at a Specified Fishery (P1, P2, M1, D1) Tutor introduces the assignment.
Avian and mammal predators of fish. Learner research and feedback on the different predator species of fish. Lecture and question and answer session about different predators.
Control methods for fish predators. Learner research and feedback on the different control measures. Lecture and question and answer session.
Practical trap setting. Pair practical on setting live cage and fenn traps for mink. Erecting cormorant lines and alternative bird scarers.
Site visit to local fishery to talk to fishery manager about predators and their impact on the fishery.
The impact of avian and mammal predators on fish. Learner research and feedback on the impact of predators on fish and the fishery. Lecture and question and answer session on different effects and impacts.
Assignment 2: Managing Fish Stocks (P3, P4, M2, D2) Tutor introduces the assignment.
Theory session on managing stocked fish in rivers Lecture on stocking rivers and how the fish stocks should then be managed. Coarse and game river fisheries should be covered.
Theory session on managing stocked fish in stillwaters Lecture on stocking rivers and how fish stocks should then be managed. Coarse and game stillwater fisheries should be covered. Site visit to local fishery to talk to fishery manager about the methods they use.
Declining wild fish stocks. Learner research and feedback on the different species of coarse and game fish in decline. Lecture and question and answer session.
Lecture and independent learner research on methods used to halt the decline of different species of coarse and game fish.
Study tour/site visit to see examples of certain species of fish in decline and the methods being used to rectify this.
Guest speaker from the Environment Agency to talk about their work to reduce the decline of certain species of coarse and game fish.
Assignment 3: Practical Fishery Management Tasks (P5, P6, P7, M3, D3) Tutor introduces the assignment.
Short lecture on vegetation control and the associated risks and safe working practices. Learner vegetation control at a local fishery covering bankside vegetation and aquatic plants. Discussion and question and answer session about the environmental impact of such work.

Topic and suggested assignments/activities and/assessment
Short lecture on bankside maintenance and the associated risks and safe working practices. Learner bankside maintenance at a local fishery covering tasks highlighted in the unit content. Discussion and question and answer session about the environmental impact of such work.
Short lecture on fish stock assessment and the risks and safe working practices. Learner fish stock assessment practical at a local fishery covering tasks highlighted in the content. Discussion and Q&A of the environmental impacts, fish and animal welfare of such work.
Assignment 4: Fishery Management – Finances, Facilities and Duties of those Employed Within the Industry (P8, P9, M4, D4) Tutor introduces the assignment.
Site visit to a local coarse and game fishery to look at the facilities. Learner feed back to the class and discussion.
Lecture on the facilities found at fisheries and the works required to maintain these. Learner independent research and feedback.
Lecture on the factors which effect financial viability of coarse and game fisheries. Case study examples and worksheet scenarios.
Lecture and discussion on the annual duties undertaken on coarse and game fisheries by those employed there.
Site visit to a local fishery to talk to fishery manager about their work and duties.
Unit review.

Assessment

For P1 and P2, learners must identify and describe the main avian and mammal predators of fish at a selected fishery. They must describe in detail the species and explain their behavioural characteristics. In addition they must identify the signs of their presence for example footprints, faeces. Tutors should identify the fishery and it can be either river or stillwater, game or coarse. Where possible, to ensure assessment is fair the size and complexity of the fishery should be the same for all learners. Evidence could take the form of a PowerPoint presentation with notes, an annotated poster, or a predator management report suitable for a fishery manager

Alternatively, this could be assessed directly by the tutor during practical activities. If this format is used then suitable evidence from guided activities would be observation records completed by learners and the tutor and accompanied by appropriate worklogs or other relevant learner notes. If assessed during a placement, witness statements should be provided by a suitable representative and verified by the tutor.

P3 and P4 requires learners to explain the factors involved in maintaining and improving the stock in a selected sports fishery. Tutors should identify the sports fishery or agree it through discussion with learners. Where possible, to ensure assessment is fair the size and complexity of the fishery should be the same for all learners. Evidence could take the form of a PowerPoint presentation with notes, an annotated poster, or a written assignment.

For P5, P6 and P7 learners must carry out suitable methods of bank maintenance, fish stock assessment and vegetation control safely at a selected sport fishery to meet given objectives. Tutors should identify the sports fishery, methods and objectives or agree them through discussion with learners. Where possible, to ensure assessment is fair the size and complexity of the fishery should be the same for all learners. It is expected that, as a minimum, learners will provide evidence relating to the use of one method of bank maintenance, one method of vegetation control and one method of stock assessment.

This could be assessed directly by the tutor during practical activities. If this format is used then suitable evidence from guided activities would be observation records completed by learners and the tutor and accompanied by appropriate worklogs or other relevant learner notes. If assessed during a placement, witness statements should be provided by a suitable representative and verified by the tutor.

For P8 and P9, learners must provide information on the major factors that affect the financial viability of a sports fishery business and the general management of a given sports fishery. Tutors should identify the sport fishery or agree it through discussion with learners. Where possible, to ensure assessment is fair the size and complexity of the fishery should be the same for all learners. This may be the same fishery used to provide evidence for other grading criteria. Evidence could take the form of a PowerPoint presentation with notes, an annotated poster, or an assignment.

For M1 they must discuss the legal methods of predator control. Learners should identify and discuss the non-lethal and lethal methods of control, analysing their effectiveness. Evidence could be in the same form as for P1 and P2.

For M2 learners must discuss the status of a declining wild fish stock. Learners should select one game fish species and one coarse fish species. For each species learners should use up-to-date statistics for each of the identified species. Learners must identify the reasons for, and possible methods of rectifying, the decline. Tutors should identify the wild fish stock or agree it through discussion with learners. Where possible, to ensure assessment is fair the size and complexity of the task should be the same for all learners. The fish stock may be the same as that used to provide evidence for other grading criteria. Evidence could be in the same form as for P3 and P4.

M3 requires learners to carry out risk assessments for a selected bank maintenance task, a selected fish stock assessment task and a selected vegetation control task. Tutors should identify the tasks or agree them through discussion with learners. Where possible, to ensure assessment is fair the size and complexity of the tasks should be the same for all learners. This may be the same tasks as those used to provide evidence for other grading criteria. Learners are required to produce the evidence in a form that would be accepted by industry.

For M4 learners must discuss the requirements of the various fishery facilities at a specified fishery. Learners must identify a range of facilities and explain their importance to the angler and fishery manager. In addition, learners must identify the maintenance work that may be required for these facilities during the course of a year. Evidence could be in the same form as for P8.

For D1 they are required to discuss the potential impact of avian and mammal predators on the given fishery. Learners should discuss the impact on fish species and how this can affect the fishery business. In addition, where applicable, learners should identify the impact that these species may have on other species which may be present. Evidence could be in the same form as for P1 and P2.

D2 requires learners to evaluate the effectiveness of current legislation in the maintenance and improvement of fish stocks. Within the term 'legislation' it is expected that learners will provide evidence relating to codes of practice and bylaws. Evidence should include specific examples of situations where legislation may either help or hinder the maintenance and improvement of fish stocks. Evidence could be in the same form as for P3 and P4.

D3 requires learners to discuss the environmental impact and associated animal and fish welfare issues of the practical tasks undertaken for P5, P6 and P7 at the given sports fishery. Tutors should identify the sports fishery or agree it through discussion with learners. Where possible, to ensure assessment is fair the size and complexity of the tasks should be the same for all learners. The sports fishery may be the same as that used to provide evidence for other grading criteria. Evidence could be in the same form as for P5, P6 and P7.

D4 requires learners to discuss the typical duties undertaken by a fishery manager/river keeper during the course of a year. Learners should describe the main seasonal tasks identifying why these are undertaken. Evidence could be in the same form as for P8.

Programme of suggested assignments

The following table shows a programme of suggested assignments that cover the pass, merit and distinction criteria in the grading grid. 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
P1, P2, M1, D1	Predator Control on a Specified Fishery	<p>You are to produce a written report on how to control avian and mammal predators on a designated fishery. You are to describe the potential predators which may be present describing their behavioural characteristics and signs of evidence. On identifying these predators you are to suggest a range of control measures for each species. Finally, you are to explain the impact that these predators could have if not controlled.</p>	Word processed report.
P3, P4, M2, D2	Managing Fish Stocks	<p>You are to produce a PowerPoint presentation on how fish are managed. You are to describe how fish are maintained and improved in a selected fishery. Following this you are to choose one coarse and one game fish species which are in decline and describe their status, why they are in decline and what is happening to try and halt this decline. Finally, you are to look at current legislation and codes of practice and explain how these help to protect fish stocks.</p>	PowerPoint presentation.
P5, P6, P7, M3, D3	Practical Fishery Management Tasks	<p>You are to undertake a range of practical fishery management tasks at a given fishery, recording and explaining the work undertaken in the work log. You are to undertake one vegetation control task, one bank maintenance task and one fish stock assessment task and, for each, complete a risk assessment. For the three completed tasks you are to discuss the environmental impact of the work and the associated fish and animal welfare issues, and suggest ways that any negative impacts/issues could be reduced or eliminated.</p>	Practical assessment and work log.
P8, M4, D4	Fishery Management –Finances, Facilities and Duties of those Employed within the Industry	<p>You are to produce a report on the major factors that can affect the financial viability on a given sports fishery. You are to also explain the facilities at the fishery and identify why they are required and the work needed to maintain them. Finally, you are to identify the duties undertaken on the fishery, on a seasonal basis, during the course of a year.</p>	Word processed report.

Links to National Occupational Standards, other BTEC units, other BTEC qualifications and other relevant units and qualifications

This unit forms part of the BTEC land-based sector suite. This unit has particular links with:

Level 2	Level 3
Introduction to Game Management	Element AgC10.3 Monitor and control unwanted vegetation
	Element CU88.1 Identify the need for, and plan, habitat management work Element CU88.2 Co-ordinate and oversee habitat management work
	Understanding Principles of Game Management

Essential resources

Learners will need supervised access to a range of river and stillwater fisheries to allow them to develop a realistic understanding of the theory behind fishery management and to develop essential practical skills.

Resources for stock assessment, bank maintenance and vegetation control work should include waders, wading sticks, buoyancy aids and throw ropes for safety purposes, appropriate fish capture equipment for fish stock surveys, appropriate identification guides, a range of hand and power tools and materials, and appropriate equipment, tools and materials for controlling vegetation.

Tutors delivering this unit should be competent and experienced sports fishery managers.

Employer engagement and vocational contexts

This unit focuses on practical and theoretical aspects of fishery management and will give learners the background knowledge to manage a range of fisheries. Centres are encouraged to create and develop links with local river and stillwater fisheries, the Environment Agency and conservation groups and organisations to enhance learning. This could be through guest lectures by Environment Agency fisheries officers, site visits and guided tours by river keepers and fishery managers, site visits and talks from officers from the Wildlife Trust and RSPB. Learners who are undertaking work experience on fisheries should be encouraged to share their experiences with other learners within the classroom.

Indicative reading for learners

Textbooks

Baldwin C – *Management of Carp Fisheries* (Mitchellwing Publications, 2001) ISBN 0954005406

Barnes R and Mann K – *Fundamentals of Aquatic Ecology*, 2nd Edition (Blackwell Science, 1991) ISBN 0632029838

Cowx I and Wellcomm R – *Rehabilitation of Rivers For Fish* (Food and Agriculture Organization of the UN, 1998) ISBN 9251040184

Harding P – *Freshwater Fishes in Britain: The Species and Their Distribution* (Harley Books, 2004) ISBN 0946589763

Holmes N – *Rivers and Wildlife Handbook* (A and C Black Publishers, 1994) ISBN 0903138700

Seagrave C – *Aquatic Weed Control* (Blackwell Science, 1988) ISBN 0852381522

Templeton R – *Freshwater Fisheries Management, 2nd Edition* (Blackwell Science, 1995) ISBN 085238209X

Journals and magazines

Anglers' Mail

Angling Times

Annual Assessment of Salmon Stocks and Fisheries in England and Wales (CEFAS and the EA)

Fish

Fisheries Management and Ecology

Gamefisher: The Salmon and Trout Association magazine

Websites

www.anglingtrust.com

The Angling Trust

www.atlanticsalmontrust.org

Atlantic Salmon Trust

www.defra.gov.uk

Department for Environment, Food and Rural Affairs

www.efishbusiness.co.uk

eFishBusiness

www.environment-agency.gov.uk

Environment Agency

www.gct.org.uk

The Game Conservation Trust

www.graylingsociety.org

Grayling Society

www.hse.gov.uk

Health and Safety Executive

www.ifm.org.uk

Institute of Fisheries Management

www.lantra.co.uk

Sector Skills Council for the Environment and Land-based Industries

www.salmon-trout.org

Salmon and Trout Association

www.thebarbelsociety.co.uk

The Barbel Society

www.wildtrout.org

The Wild Trout Trust

Delivery of personal, learning and thinking skills (PLTS)

The following table identifies the PLTS opportunities that have been included within the assessment criteria of this unit:

Skill	When learners are ...
Independent enquirers	planning and carrying out research on the various predators of fish
Creative thinkers	generating ideas on the factors which can affect the financial viability of coarse and game fisheries asking questions about the costs of facilities and fish for a given fishery using their experiences from work experience about the financial factors involved in fishery management
Team workers	undertaking vegetation control at a given fishery undertaking bankside maintenance work at a given fishery undertaking a fish stock assessment task.

Although PLTS opportunities are identified within this unit as an inherent part of the assessment criteria, there are further opportunities to develop a range of PLTS through various approaches to teaching and learning.

Skill	When learners are ...
Independent enquirers	considering the views of the RSPB and other organisations on the lethal control of avian predators considering the risks of the vegetation control work considering the risks of the bankside maintenance work
Creative thinkers	thinking about different ways to undertake fish stock assessment tasks
Reflective learners	assessing themselves and others when undertaking bank maintenance work assessing themselves and others when undertaking vegetation control work.

● Functional Skills – Level 2

Skill	When learners are ...
ICT – Develop, present and communicate information	
Enter, develop and format information independently to suit its meaning and purpose including: <ul style="list-style-type: none"> • text and tables • images • numbers • records 	producing a report on predator control at a given fishery producing a report on fishery management producing a presentation on fish stocks
Present information in ways that are fit for purpose and audience	producing a PowerPoint presentation on fish stocks
English	
Speaking and listening – make a range of contributions to discussions and make effective presentations in a wide range of contexts	discussing a fish stock assessment task discussing a vegetation control task discussing a bankside maintenance task
Reading – compare, select, read and understand texts and use them to gather information, ideas, arguments and opinions	finding information on predators and the associated control measures gathering information on the organisations involved in the control of predators
Writing – write documents, including extended writing pieces, communicating information, ideas and opinions, effectively and persuasively	producing a report on fish stocks producing a report on predator control producing a work log on practical fishery management work.