QUALIFICATION HANDBOOK

Level 2 Diploma in Work Based Trees and Timber (0083-71, 72, 73)

September 2021 Version.2.2

City & Guilds

Qualification at a glance

Subject area	**Trees and Timber**
City & Guilds number	0083 – 71, -72, 73
Age group approved	16-18, 18+, 19+
Entry requirements	Level 2
Assessment	Portfolio
Fast track	Available
Support materials	Candidate logbook
Registration and certification	Consult the Walled Garden/Online Catalogue for last dates

Title and level	GLH	TQT	City & Guilds number	Accreditation number
Level 2 Diploma in Work-based Trees and Timber (Arboriculture)	252	370	0083-71	600/7616/1
Level 2 Diploma in Work-based Trees and Timber (General Woodland and Forestry Treework)	252	370	0083-72	600/7616/1
Level 2 Diploma in Work-based Trees and Timber (Coppicing and Greenwood Trades)	252	370	0083-73	600/7676/1

Title and level	Last Date Registration	Last Date Certification
Level 2 Diploma in Work-based Trees and Timber (Arboriculture)	31/12/2014	31/12/2016
Level 2 Diploma in Work-based Trees and Timber (General Woodland and Forestry Treework)	31/12/2014	31/12/2016
Level 2 Diploma in Work-based Trees and Timber (Coppicing and Greenwood Trades)	31/12/2014	31/12/2016

Version and date	Change detail	Section
1.1 April 2013	Emboldened the title and corrected grammatical errors	First page and Units
2.0 December 2014	Number of credits required from optional group 2 in Level 2 Diploma in Work-based Trees and Timber (General Woodland and Forestry Treework) was amended	Structure
2.1 August 2017	Added TQT and GLH details Removed QCF	Qualification at a Glance Appendix 2
2.2 September 2021	Added in The Arboricultural Association Technical Guide for accessing trees and rope use.	U**nit 421 Access a tree using a rope and harness**

Contents

1 Introduction

This document tells you what you need to do to deliver the qualifications:

Area	Description
Who are the qualifications for?	For candidates who work or want to work as in the trees and timber sector
What do the qualifications cover?	They allow candidates to learn, develop and practise the skills required for employment and/or career progression in the Trees and Timber sector.
Are the qualifications part of a framework or initiative?	They serve as competence qualifications, in the Trees and Timber Apprenticeship framework.
What opportunities for progression are there?	They allow candidates to progress into employment or to the following City & Guilds qualifications: • Level 3 Diploma in Work-based Trees and Timber (0083) • Level 2 Forestry and Arboriculture (0077)

Relationship to Certificates of Competence

Please note that the achievement of any of the chainsaw units will **not** directly lead to certification of competence in the Level 2 Award in Chainsaw and Related Operations. The achieve of the chainsaw units within these qualifications could be used to contribute towards preparative training for the Level 2 Award in Chainsaw and Related Operations.

Structure

Please note that a **maximum** of **9** credits from level 3 units can be achieved within the level 2 structures.

To achieve **the Level 2 Diploma in Trees and Timber (Arboriculture),** learners must achieve **23** credits from the mandatory units and a minimum of **14** credits from the optional units in group 1 and learners may achieve a minimum of **1** credit from group 2.

Unit accreditation number	City & Guilds unit number	Unit title	Credit value
Mandatory			
F/504/0596	411	Support colleagues undertaking off ground tree related operations	3
F/504/3658	413	Process arising from tree work operations	1
K/504/0320	427	Carry out maintenance of chainsaw and cutting system	2
L/504/3694	435	Identify tree species and their properties	5
M/504/0321	438	Fell and process trees up to 380mm	3
M/504/3641	439	Control pollution incidents	5
T/504/0319	450	Cross-cut timber using a chainsaw	1
Y/501/6353	456	Monitoring and maintaining health and safety	3
Optional Group 1			
A/504/3660	402	Carry out vegetation management in proximity to above ground utilities	5
D/504/3652	406	Control unwanted vegetation	3
D/504/3683	407	Use of machine powered winches in timber work	5
D/504/3697	408	Prepare sites for planting	2
D/601/1651	409	Prepare and produce charcoal	3
F/504/3689	414	Prepare, drive and manoeuvre forwarder	5
H/504/3667	418	Process coppice materials and greenwood products	4
H/504/3670	419	Sharpen and maintain edged hand tools	2
H/504/3684	420	Extract wood and wood products using small motorised equipment	4

H/504/0316	421	Access a tree using a rope and harness	3
J/504/0597	424	Use a powered pole pruner	2
K/504/0656	428	Remove branches and breakdown crowns using a chainsaw	2
K/504/3671	429	Cut, process and extract coppice	4
K/504/3685	430	Choker timber for extraction	2
L/504/3677	433	Carry out vegetation management in proximity of underground utilities	5
M/504/3669	440	Build and maintain tools and devises to process coppice and greenwood products	3
M/601/0262	442	Treat and dispose of stumps and roots	1
Y/504/4038	444	Safe use of a mobile elevated work platform	2
R/504/3678	445	Prepare horse for timber work	3
R/504/3647	446	Plant trees	2
R/504/3695	448	Clear sites for planting	2
R/504/3700	449	Prepare a safe working area for tree work operations	3
K/504/3654	452	Soil amelioration for tree health	1
T/504/3656	453	Take delivery of and store plants and materials	2
T/504/3690	455	Operate a grapple loader	2
Y/504/3665	458	Produce wood fuel in a woodland or forest	3
K/601/0261	472	Dispose of stumps and roots	1
F/504/0663	510	Prepare for and agree emergency tree work operations	5
F/504/3661	511	Lay a hedge	4
F/504/3675	512	Extract timber using a horse	8
K/504/0317	520	Carry out aerial pruning of a tree	3
L/504/0620	525	Sever uprooted or windblown trees using a chainsaw	4
T/504/0322	541	Carry out aerial rescue operations	3
Optional group 2			
A/502/1514	401	Control pests, diseases and disorders	3
A/600/0821	403	Construct, maintain and repair stone wall boundaries	4
D/502/3966	405	Control vertebrate pests and predators by shooting	6

F/502/3216	410	Construct, maintain and repair stone pitched paths	4
H/502/3161	415	Promote responsible public use of the environment	4
H/502/3967	417	Control vertebrate pest populations using chemical means	6
J/502/1533	422	Maintaining plants outdoors	3
K/502/1511	425	Identify and report the presence of pests, diseases and disorders	3
L/502/3168	431	Work with and consult the local community	3
L/600/2699	436	Communicate with the public and others	3
M/601/1511	443	Resolve customer service problems	6
Y/502/3965	457	Control vertebrate pests and predators using traps	6
Y/600/0826	460	Construct, maintain and repair stiles	4
A/600/0818	463	Construct, maintain and repair post and wire fence boundaries	4
T/600/0817	464	Construct, maintain and repair post and rail boundaries	4
K/600/0815	465	Construct, maintain and repair banks	4
L/600/0824	466	Construct, maintain and repair access gates	4
A/502/3215	467	Construct, maintain and repair reinforced paths	4
T/502/3214	468	Construct, maintain and repair flag paths	4
M/502/3213	469	Construct, maintain and repair boardwalks	4
K/502/3209	470	Construct, maintain and repair bark paths	4
D/502/3207	471	Construct, maintain and repair aggregate paths	4
M/600/1237	530	Prepare deer for human consumption	6
Y/600/9669	547	Plan, allocate and monitor work of a team	5

To achieve the **Level 2 Diploma in Work-based Trees and Timber (General Woodland and Forestry Treework)**, learners must achieve **16** credits from the mandatory units, a minimum of **12** credits from optional

group 1 and learners may achieve a minimum of **9** credit from optional group 2.

Mandatory			
K/502/1511	425	Identify and report the presence of pests, diseases and disorders	3
L/504/3694	435	Identify tree species and their properties	5
M/504/3641	439	Control pollution incidents	5
Y/501/6353	456	Monitoring and maintaining health and safety	3
Optional group 1			
A/504/3660	402	Carry out vegetation management in proximity to above ground utilities	5
D/504/3652	406	Control unwanted vegetation	3
D/504/3683	407	Use of machine powered winches in timber work	5
D/504/3697	408	Prepare sites for planting	2
D/601/1651	409	Prepare and produce charcoal	3
F/504/0596	411	Support colleagues undertaking off ground tree related operations	3
F/504/3644	412	Create an open drainage system	3
F/504/3658	413	Process arising from tree work operations	1
F/504/3689	414	Prepare, drive and manoeuvre forwarder	5
H/504/3667	418	Process coppice materials and greenwood products	4
H/504/3670	419	Sharpen and maintain edged hand tools	2
H/504/3684	420	Extract wood and wood products using small motorised equipment	4
H/504/0316	421	Access a tree using a rope and harness	3
J/504/0597	424	Use a powered pole pruner	2
K/504/0320	427	Carry out maintenance of chainsaw and cutting system	2
K/504/0656	428	Remove branches and breakdown crowns using a chainsaw	2
K/504/3671	429	Cut, process and extract coppice	4
K/504/3685	430	Choker timber for extraction	2
L/504/3677	433	Carry out vegetation management in proximity of underground utilities	5

L/504/3680	434	Prepare and operate machinery to process trees	5
M/504/0321	438	Fell and process trees up to 380mm	3
M/504/3669	440	Build and maintain tools and devices to process coppice and greenwood products	3
M/504/3672	441	Maintain coppice health and productivity	4
M/601/0262	442	Treat and dispose of stumps and roots	1
Y/504/4038	444	Safe use of a mobile elevated work platform	2
R/504/3678	445	Prepare horse for timber work	3
R/504/3647	446	Plant trees	2
R/504/3681	447	Prepare and operate hand fed machinery to process timber on site	5
R/504/3695	448	Clear sites for planting	2
R/504/3700	449	Prepare a safe working area for tree work operations	3
T/504/0319	450	Cross-cut timber using a chainsaw	1
J/504/3645	451	Maintain open drainage systems	3
K/504/3654	452	Soil amelioration for tree health	1
T/504/3656	453	Take delivery of and store plants and materials	2
T/504/3687	454	Prepare, drive and operate a skidder	5
T/504/3690	455	Operate a grapple loader	2
Y/504/3665	458	Produce wood fuel in a woodland or forest	3
Y/504/3679	459	Prepare and operate machinery to fell trees	5
Y/601/0255	461	Carry out non chemical post-planting protection and maintenance	2
Y/601/0269	462	Principles of forest and moorland fire fighting	2
K/601/0261	472	Dispose of stumps and roots	1
D/504/3666	507	Construct a greenwood product to client specification	8
F/504/0663	510	Prepare for and agree emergency tree work operations	5
F/504/3661	511	Lay a hedge	4
F/504/3675	512	Extract timber using a horse	8

K/504/0317	520	Carry out aerial pruning of a tree	3
L/504/0620	525	Sever uprooted or windblown trees using a chainsaw	4
T/504/0322	541	Carry out aerial rescue operations	3
Optional group 2			
A/502/1514	401	Control pests, diseases and disorders	3
A/600/0821	403	Construct, maintain and repair stone wall boundaries	4
D/502/3224	404	Construct, maintain and repair fords	3
D/502/3966	405	Control vertebrate pests and predators by shooting	6
F/502/3216	410	Construct, maintain and repair stone pitched paths	4
H/502/3161	415	Promote responsible public use of the environment	4
H/502/3225	416	Construct, maintain and repair signs/way markers	3
H/502/3967	417	Control vertebrate pest populations using chemical means	6
J/502/1533	422	Maintaining plants outdoors	3
J/502/3217	423	Site and install site furniture and structures	2
K/502/3226	426	Construct, maintain and repair simple bridges	3
L/502/3168	431	Work with and consult the local community	3
L/502/3218	432	Maintain and repair site furniture and structures	3
L/600/2699	436	Communicate with the public and others	3
M/502/3227	437	Construct, maintain and repair steps	3
M/601/1511	443	Resolve customer service problems	6
Y/502/3965	457	Control vertebrate pests and predators using traps	6
Y/600/0826	460	Construct, maintain and repair stiles	4
A/600/0818	463	Construct, maintain and repair post and wire fence boundaries	4
T/600/0817	464	Construct, maintain and repair post and rail boundaries	4

K/600/0815	465	Construct, maintain and repair banks	4
L/600/0824	466	Construct, maintain and repair access gates	4
A/502/3215	467	Construct, maintain and repair reinforced paths	4
T/502/3214	468	Construct, maintain and repair flag paths	4
M/502/3213	469	Construct, maintain and repair boardwalks	4
K/502/3209	470	Construct, maintain and repair bark paths	4
D/502/3207	471	Construct, maintain and repair aggregate paths	4
M/600/1237	530	Prepare deer for human consumption	6
Y/600/9669	547	Plan, allocate and monitor work of a team	5

To achieve the **Level 2 Diploma in Work-based Trees and Timber (Coppicing and Greenwood Trades)**, learners must achieve **27** credits from the mandatory units, a minimum of **10** credits from optional units in group 1 and learners may achieve a minimum of **1** credit from optional units in group 2.

Mandatory			
H/504/3667	418	Process coppice materials and greenwood products	4
H/504/3670	419	Sharpen and maintain edged hand tools	2
K/504/3671	429	Cut, process and extract coppice	4
L/504/3694	435	Identify tree species and their properties	5
M/504/0321	438	Fell and process trees up to 380mm	3
M/504/3641	439	Control pollution incidents	5
T/504/0319	450	Cross-cut timber using a chainsaw	1
Y/501/6353	456	Monitoring and maintaining health and safety	3
Optional group 1			
D/504/3652	406	Control unwanted vegetation	3
D/504/3683	407	Use of machine powered winches in timber work	5
D/601/1651	409	Prepare and produce charcoal	3

F/504/3689	414	Prepare, drive and manoeuvre forwarder	5
H/504/3684	420	Extract wood and wood products using small motorised equipment	4
J/504/0597	424	Use a powered pole pruner	2
K/504/0320	427	Carry out maintenance of chainsaw and cutting system	2
K/504/0656	428	Remove branches and breakdown crowns using a chainsaw	2
K/504/3685	430	Choker timber for extraction	2
M/504/3669	440	Build and maintain tools and devices to process coppice and greenwood products	3
M/504/3672	441	Maintain coppice health and productivity	4
Y/504/4038	444	Safe use of a mobile elevated work platform	2
R/504/3678	445	Prepare horse for timber work	3
R/504/3647	446	Plant trees	2
R/504/3681	447	Prepare and operate hand fed machinery to process timber on site	5
R/504/3695	448	Clear sites for planting	2
R/504/3700	449	Prepare a safe working area for tree work operations	3
T/504/3656	453	Take delivery of and store plants and materials	2
T/504/3687	454	Prepare, drive and operate a skidder	5
T/504/3690	455	Operate a grapple loader	2
Y/504/3665	458	Produce wood fuel in a woodland or forest	3
Y/601/0269	462	Principles of forest and moorland fire fighting	2
D/504/3666	507	Construct a greenwood product to client specification	8
F/504/3661	511	Lay a hedge	4
F/504/3675	512	Extract timber using a horse	8
L/504/0620	525	Sever uprooted or windblown trees using a chainsaw	4

Optional group 2

A/502/1514	401	Control pests, diseases and disorders	3
A/600/0821	403	Construct, maintain and repair stone wall boundaries	4
D/502/3966	405	Control vertebrate pests and predators by shooting	6
F/502/3216	410	Construct, maintain and repair stone pitched paths	4
H/502/3161	415	Promote responsible public use of the environment	4
H/502/3225	416	Construct, maintain and repair signs/way markers	3
H/502/3967	417	Control vertebrate pest populations using chemical means	6
J/502/1533	422	Maintaining plants outdoors	3
J/502/3217	423	Site and install site furniture and structures	2
K/502/1511	425	Identify and report the presence of pests, diseases and disorders	3
K/502/3226	426	Construct, maintain and repair simple bridges	3
L/502/3168	431	Work with and consult the local community	3
L/502/3218	432	Maintain and repair site furniture and structures	3
L/600/2699	436	Communicate with the public and others	3
M/502/3227	437	Construct, maintain and repair steps	3
M/601/1511	443	Resolve customer service problems	6
Y/502/3965	457	Control vertebrate pests and predators using traps	6
Y/600/0826	460	Construct, maintain and repair stiles	4
A/600/0818	463	Construct, maintain and repair post and wire fence boundaries	4
T/600/0817	464	Construct, maintain and repair post and rail boundaries	4
K/600/0815	465	Construct, maintain and repair banks	4
L/600/0824	466	Construct, maintain and repair access gates	4
A/502/3215	467	Construct, maintain and repair reinforced paths	4

M/502/3213	469	Construct, maintain and repair boardwalks	4
K/502/3209	470	Construct, maintain and repair bark paths	4
D/502/3207	471	Construct, maintain and repair aggregate paths	4
M/600/1237	530	Prepare deer for human consumption	6

2 Centre requirements

Approval

If your Centre is approved to offer the qualification [Level 2 Diploma in Work-based Trees and Timber (0083-21, 22, 23) you can apply for the new [Level 2 Diploma in Work-based Trees and Timber (0083-71, 72, 73)] approval using the **fast track approval form**, available from the City & Guilds website.

Centres should use the fast track form if:

- there have been no changes to the way the qualifications are delivered, and
- they meet all of the approval criteria in the fast track form guidance notes.

Fast track approval is available for 12 months from the launch of the qualification. After 12 months, the Centre will have to go through the standard Qualification Approval Process. The centre is responsible for checking that fast track approval is still current at the time of application.

To offer these qualifications, new centres will need to gain both centre and qualification approval. Please refer to the *Centre Manual - Supporting Customer Excellence* for further information.

Centre staff should familiarise themselves with the structure, content and assessment requirements of the qualifications before designing a course programme.

Resource requirements

Physical resources and site agreements

The equipment, systems and machinery must meet industrial standards and be capable of being used under normal working conditions.

Centre staffing

Staff delivering these] qualifications must be able to demonstrate that they meet the following occupational expertise requirements. They should:

- be occupationally competent or technically knowledgeable in the areas for which they are delivering training and/or have experience of providing training. This knowledge must be to the same level as the training being delivered
- have recent relevant experience in the specific area they will be assessing

- have credible experience of providing training.

Centre staff may undertake more than one role, eg tutor and assessor or internal verifier, but cannot internally verify their own assessments.

Assessors and internal verifiers

The centre must provide Assessor personnel who must be occupationally competent in the industry either qualified to at least level 3 and/or have current experience of working in the industry at this level.

The centre must provide Internal Quality Assurance personnel who must be occupationally competent in the industry either qualified to at least level 3 and/or have current experience of working in the industry at this level.

Assessors/Internal Quality Assurance personnel may hold relevant qualifications such as D32/33/34 or A1/V1 or TAQA however they are not a mandatory requirement for this qualification. They should have had formal training in assessment/IQA, which may be the qualifications above, or other training that allows the assessor to demonstrate competence in the practice of assessment/IQA. This training may be carried out in-house or with an external agency.

TAQA qualifications are considered very appropriate as Continuing Professional Development (CPD) or as best practice standards for new centre staff to work towards

Continuing professional development (CPD)

Centres must support their staff to ensure that they have current knowledge of the occupational area, that delivery, mentoring, training, assessment and verification is in line with best practice, and that it takes account of any national or legislative developments.

Candidate entry requirements

City & Guilds does not set entry requirements for these qualifications. However, centres must ensure that candidates have the potential and opportunity to gain the qualifications successfully.

Age restrictions

City & Guilds cannot accept any registrations for candidates under 16 as the qualifications are not approved for under 16s.

Candidates under 16 are not allowed to use certain machinery, for example chainsaws

3 Delivering the qualification

Initial assessment and induction

An initial assessment of each candidate should be made before the start of their programme to identify:

- if the candidate has any specific training needs,
- support and guidance they may need when working towards their qualifications.
- any units they have already completed, or credit they have accumulated which is relevant to the qualifications
- the appropriate type and level of qualification.

We recommend that centres provide an induction programme so the candidate fully understands the requirements of the qualification, their responsibilities as a candidate, and the responsibilities of the centre. This information can be recorded on a learning contract.

Support materials

The following resources are available for these qualifications:

Description	How to access
Candidate logbook	**www.cityandguilds.com**

Recording documents

Candidates and centres may decide to use a paper-based or electronic method of recording evidence.

City & Guilds endorses several ePortfolio systems, including our own, **Learning Assistant**, an easy-to-use and secure online tool to support and evidence learners' progress towards achieving qualifications. Further details are available at: **www.cityandguilds.com/eportfolios**.

City & Guilds has developed a set of *Recording forms* including examples of completed forms, for new and existing centres to use as appropriate. *Recording forms* are available on the City & Guilds website.

Although new centres are expected to use these forms, centres may devise or customise alternative forms, which must be approved for use by the external verifier, before they are used by candidates and assessors at the centre. Amendable (MS Word) versions of the forms are available on the City & Guilds website.

4 Assessment

Assessment of the qualification

Candidates must:

- have a completed portfolio of evidence for each unit

Recognition of prior learning (RPL)

Recognition of prior learning means using a person's previous experience or qualifications which have already been achieved to contribute to a new qualification.

RPL is not allowed for this qualification.

5 Units

Availability of units

These units are also available on The Register of Regulated Qualifications **http://register.ofqual.gov.uk/**

Structure of units

These units each have the following:

- City & Guilds reference number
- unit accreditation number
- title
- level
- credit value
- unit aim
- relationship to NOS, other qualifications and frameworks
- endorsement by a sector or other appropriate body
- information on assessment
- learning outcomes which are comprised of a number of assessment criteria

Unit 401 Control pests, diseases and disorders

UAN:	**A/502/1514**
Level:	Level 2
Credit value:	3
GLH:	23
Relationship to NOS:	This unit is linked to the Horticulture NOS.
Endorsement by a sector or regulatory body:	This unit is endorsed by Lantra, the Sector Skills Council for Land and Environment

Learning outcome
The learner will: 1. Be able to control pests, diseases and disorders
Assessment criteria
The learner can: 1.1 Confirm the control methods to be used with the appropriate person 1.2 Handle all materials carefully, safely and efficiently in accordance with instructions and organisational policy 1.3 Apply control methods in a way which minimises the risks to non-target species and the environment covering 1.4 Report any problems if they arise during pest, disease and disorder control to the appropriate person without delay 1.5 Provide clear and accurate information for recording purposes

Learning outcome
The learner will: 2. Be able to select, use and maintain relevant equipment
Assessment criteria
The learner can: 2.1 Select appropriate equipment for this area of work 2.2 Use equipment according to relevant legislation and manufacturer's instructions including Personal protective equipment 2.3 Prepare, maintain and store equipment in a safe and effective working conditions

Learning outcome
The learner will: 3. Be able to work safely and minimise environmental damage
Assessment criteria
The learner can: 3.1 Work in a way which maintains health and safety and is consistent with relevant legislation, codes of practice and any additional requirements 3.2 Carry out work in a manner which minimises environmental damage 3.3 Dispose of waste safely and correctly

Learning outcome
The learner will: 4. Know how to control pests, diseases and disorders
Assessment criteria
The learner can: 4.1 Outline the health and safety risks in controlling pests, diseases and disorders 4.2 Describe the safe handling and effective use of materials equipment and chemicals and relevant codes of practice 4.3 Describe the dangers and emergency treatments associated with the use of chemicals 4.4 Describe control methods covering all the following: • chemical • biological • cultural 4.5 Describe the types of problems which may occur and to whom they should be reported 4.6 Identify the types of records required and explain the importance of accurate record keeping

Learning outcome
The learner will: 5. Know relevant health and safety legislation and environmental good practice
Assessment criteria
The learner can: 5.1 Outline the current health and safety legislation, codes of practice and any additional requirements, including control of hazardous substances and environmental legislation

5.2 Describe how environmental damage can be minimised
5.3 Describe the correct methods for disposing of waste

Learning outcome
The learner will: 6. Know the types of equipment required and how to maintain them
Assessment criteria
The learner can: 6.1 Describe the equipment which will be required for the activity 6.2 Describe the methods of maintaining the range of equipment

Unit 401 Control pests, diseases and disorders

Supporting information

Guidance

Simulation will not be acceptable where the unit is included in qualifications which verify competent performance. Please refer to Lantra's Assessment Strategy for further guidance.

Unit 402 Carry out vegetation management in proximity to above ground utilities

UAN:	**A/504/3660**
Level:	Level 2
Credit value:	5
GLH:	38
Relationship to NOS:	This unit is linked to the Trees and Timber NOS.
Endorsement by a sector or regulatory body:	This unit is endorsed by Lantra, the Sector Skills Council for Land and Environment
Aim:	The aim of this unit is to provide learners with the knowledge and skills to manage vegetation in proximity of above ground utilities. Utilities include electricity, railways, waterways and highways

Learning outcome
The learner will: 1. Be able to work safely
Assessment criteria
The learner can: 1.1 Identify the hazards and risks associated with the working area and the proposed work 1.2 Use appropriate tools, equipment and personal protective equipment (PPE) 1.3 Carry out work in accordance with relevant legislation, industry good practice and promotes health and safety 1.4 Carry out work to minimise environmental damage 1.5 Dispose of waste in line with legislation 1.6 Provide clear and accurate information for recording purposes

Learning outcome
The learner will: 2. Be able to carry out vegetation management in proximity to above ground utilities
Assessment criteria
The learner can: 2.1 Revalidate any pre-prepared risk assessments and work instructions 2.2 Ensure that required signage and guarding controls are in place 2.3 Operate specialist equipment in accordance with manufacturers and utility's specified parameters 2.4 Manage vegetation to ensure a reduction of its impact on utilities

Learning outcome
The learner will: 3. Know relevant health and safety legislation and industry good practice
Assessment criteria
The learner can: 3.1 Outline the current health and safety legislation, industry good practice and any additional requirements 3.2 Describe how to use and maintain tools, equipment and personal protective equipment 3.3 Describe how environmental damage can be minimised 3.4 Describe the correct methods for disposing of waste 3.5 Outline the emergency planning procedures relevant to the work area

Learning outcome
The learner will: 4. Know how to carry out vegetation management in proximity to above ground utilities
Assessment criteria
The learner can: 4.1 State the potential hazards and risks associated with working in close proximity to the utility in relation to structures, safety distances and use of equipment 4.2 State how to evaluate the tree for hazards and the implications of the hazards when identified 4.3 Outline the level of risks posed by trees and vegetation from either its bio-mechanical condition and/or proximity to the utility 4.4 State the likely impact of proposed utility work on trees and vegetation 4.5 Explain how to resolve conflicts between retaining aesthetics against the requirements of the utility owner or licence holder 4.6 Identify tree species

4.7	Explain how species, condition of trees and the time of year can affect the work
4.8	Outline the basic principles of tree biology and how they impact on the work

Range
10 Broadleaf
4 Conifer

Unit 402 Carry out vegetation management in proximity to above ground utilities

Supporting information

Guidance

Simulation will not be acceptable where the unit is included in qualifications which verify competent performance. Please refer to Lantra's Assessment Strategy for further guidance.

Unit 403 Construct, maintain and repair stone wall boundaries

UAN:	**A/600/0821**
Level:	Level 2
Credit value:	4
GLH:	30
Relationship to NOS:	This unit is linked to the Environmental Conservation NOS.
Endorsement by a sector or regulatory body:	This unit is endorsed by Lantra, the Sector Skills Council for Land and Environment

Learning outcome
The learner will: 1. Construct, maintain and repair stone wall boundaries
Assessment criteria
The learner can: 1.1 Prepare the site appropriately, and in a way which minimises the effect on the surrounding environment 1.2 Identify the proposed line for the boundary from the specification and any special considerations which relate to the line including: • health and safety • environmental impact • access 1.3 Construct, maintain or repair the boundaries to specification, and finish it in a way which fits in with the surrounding environment 1.4 Take appropriate action without delay where problems occur during work including: • accidental damage • difficulties in meeting the specification disturbance to wildlife or environment 1.5 Handle, manoeuvre and transport materials safely 1.6 Identify and report potential improvements to the work specification 1.7 Make the site good when work is finished, and dispose of any waste or unwanted materials correctly and safely

Learning outcome
The learner will: 2. Be able to select, use and maintain equipment for the construction, maintenance and repair of stone wall boundaries
Assessment criteria
The learner can: 2.1 Select appropriate equipment and materials for this area of work 2.2 Use equipment according to instructions 2.3 Prepare, maintain and store equipment in a safe and effective working condition

Learning outcome
The learner will: 3. Be able to work safely and minimise environmental damage
Assessment criteria
The learner can: 3.1 Work in a way which maintains health and safety and is consistent with current legislation, codes of practice and any additional requirements 3.2 Carry out work in a manner which minimises environmental damage 3.3 Dispose of waste safely and correctly

Learning outcome
The learner will: 4. Know how to construct, maintain and repair stone wall boundaries
Assessment criteria
The learner can: 4.1 Describe suitable methods for preparing the site 4.2 Outline how to interpret and use relevant specifications covering: • setting out and location • materials and resources • timing and timescales • working methods • suitability to expected use and local tradition 4.3 Outline the context within which the boundary is set, and how this relates to the specification 4.4 Describe the problems which may occur during operations and how these should be dealt with covering: • accidental damage

• difficulties in meeting the specification disturbance to wildlife or environment 4.5 Describe the environmental value of work sites, the potential effects of work on the environment and how to control these 4.6 Describe the reasons for leaving the site in the required condition on completion of operations

Learning outcome
The learner will: 5. Know the current health and safety legislation and environmental good practice
Assessment criteria
The learner can: 5.1 Outline the current health and safety legislation, codes of practice and any additional requirements, which apply to this area of work. 5.2 Describe how environmental damage can be minimised 5.3 Describe the correct methods for disposing of waste. 5.4 Explain how to identify hazards and assess risks 5.5 Explain how to interpret risk assessments

Unit 403 Construct, maintain and repair stone wall boundaries

Supporting information

Guidance

Simulation will not be acceptable where the unit is included in qualifications which verify competent performance. Please refer to Lantra's Assessment Strategy for further guidance.

Unit 404 Construct, maintain and repair fords

UAN:	**D/502/3224**
Level:	Level 2
Credit value:	3
GLH:	23
Relationship to NOS:	This unit is linked to the Environmental Conservation NOS.
Endorsement by a sector or regulatory body:	This unit is endorsed by Lantra, the Sector Skills Council for Land and Environment

Learning outcome
The learner will: 1. Be able to construct, maintain and repair fords
Assessment criteria
The learner can: 1.1 Prepare the site appropriately, and in a way which minimises the effect on the surrounding environment to include: • setting out and location • materials and resources • timing and timescales • working methods • suitability for expected use and local tradition 1.2 Make sure that the ford is secure, and suitable for its intended use 1.3 Construct, maintain or repair the ford to specification, and finish it in a way which fits in with the surrounding environment 1.4 Take the appropriate action without delay when problems occur during your work including: • accidental damage • difficulties in meeting the specification • disturbance to wildlife or environment 1.5 Inform the appropriate person of any potential improvements to the work specification 1.6 Make the site as good as possible when work is finished.

Learning outcome
The learner will: 2. Be able to work safely and minimise environmental damage
Assessment criteria
The learner can: 2.1 Work in a way which maintains health and safety and is consistent with relevant legislation, codes of practice and any additional requirements 2.2 Carry out work in a manner which minimises environmental damage 2.3 Dispose of waste safely and correctly

Learning outcome
The learner will: 3. Be able to select, use and maintain relevant equipment
Assessment criteria
The learner can: 3.1 Select and use appropriate equipment for this area of work 3.2 Prepare, maintain and store equipment in a safe and effective working condition

Learning outcome
The learner will: 4. Know how to construct, maintain and repair fords
Assessment criteria
The learner can: 4.1 Describe how to identify hazards and assess risks 4.2 Describe how to interpret risk assessments 4.3 Describe suitable methods for preparing the site 4.4 State the purpose of the ford 4.5 Outline how to interpret and use relevant specifications covering: • setting out and location • materials and resources • timing and timescales • working methods • suitability for expected use and local tradition 4.6 Outline the context within which the ford is set, and how this relates to the specification 4.7 Describe methods for constructing, maintaining and repairing fords 4.8 Describe problems which may occur during operations and how these should be dealt with • accidental damage

- difficulties in meeting the specification
- disturbance to wildlife or environment

4.9 Outline the required condition of the site on completion of operations

Learning outcome
The learner will: 5. Distinguish between different types of access structure
Assessment criteria
The learner can: 5.1 Identify and describe the defining characteristics of fords compared to: • simple bridges • steps • signs/waymarkers

Learning outcome
The learner will: 6. Know relevant health and safety legislation and environmental good practice
Assessment criteria
The learner can: 6.1 Outline the current health and safety legislation, codes of practice and any additional requirements 6.2 Describe how environmental damage can be minimised 6.3 Describe the correct methods for disposing of waste

Learning outcome
The learner will: 7. Know the types of equipment required and how to maintain them
Assessment criteria
The learner can: 7.1 Describe the equipment which will be required for the activity 7.2 Describe the methods of maintaining the range of equipment

Unit 404 Construct, maintain and repair fords

Supporting information

Guidance

Simulation will not be acceptable where the unit is included in qualifications which verify competent performance. Please refer to Lantra's Assessment Strategy for further guidance.

Unit 405 Control vertebrate pests and predators by shooting

UAN:	**D/502/3966**
Level:	Level 2
Credit value:	6
GLH:	45
Relationship to NOS:	This unit is linked to the Environmental Conservation NOS.
Endorsement by a sector or regulatory body:	This unit is endorsed by Lantra, the Sector Skills Council for Land and Environment

Learning outcome
The learner will: 1. Be able to determine the need for vertebrate pests and predator control
Assessment criteria
The learner can: 1.1 Interpret signs to determine vertebrate pest and predator activity 1.2 Modify monitoring activities to take account of seasonal variations, prevailing weather conditions and habitat.

Learning outcome
The learner will: 2. Be able to shoot vertebrate pests and predators
Assessment criteria
The learner can: 2.1 Select shooting method, firearm and ammunition appropriate to the vertebrate pest and predator species and site characteristics 2.2 Use firearms according to relevant legislation and approved codes of practice 2.3 Identify and efficiently shoot target species 2.4 Minimise the disturbance caused to non-target species 2.5 Despatch wounded vertebrate pests and predators humanely.

Learning outcome
The learner will: 3. Be able to handle firearms and ammunition according to legal requirements
Assessment criteria
The learner can: 3.1 Clean, maintain and store firearms and ammunition according to legal requirements

Learning outcome
The learner will: 4. Be able to work safely and minimise environmental damage
Assessment criteria
The learner can: 4.1 Work in a way which maintains health and safety and is consistent with relevant legislation, codes of practice and any additional requirements 4.2 Carry out work in a manner which minimises environmental damage 4.3 Dispose of waste and mortalities responsibly according to legal requirements and approved codes of practice

Learning outcome
The learner will: 5. Be able to maintain accurate records
Assessment criteria
The learner can: 5.1 Maintain accurate shooting records

Learning outcome
The learner will: 6. Know how to determine the need for vertebrate pests and predator control
Assessment criteria
The learner can: 6.1 Identify common mammal and bird, pest and predator species 6.2 Describe the significance and potential effects of, vertebrate pests and predators to the site and its purpose

6.3	Describe the behavioural characteristics of vertebrate pests and predators and how these can influence the control method selected
6.4	Describe the effects of the seasons and weather conditions on monitoring activities
6.5	Describe the effects of vertebrate pests and predators on animal/plant populations
6.6	Explain how to interpret the following signs to determine pest and predator activity: • direct sightings • runs • footprints • damage to habitat • dead animals • kills • sounds • smells • (ix) droppings

Learning outcome	
The learner will:	
7.	Know how to shoot vertebrate pests and predators
Assessment criteria	
The learner can:	
7.1	Outline the codes of practice covering all aspects of vertebrate pests and predators control
7.2	Outline firearms legislation in relation to shooting vertebrate pests and predators
7.3	Explain the legal restrictions controlling the use of firearms
7.4	Explain the effective application and ranges of firearms and ammunition
7.5	Describe the habits of common vertebrate pests and predators species and how these can influence the shooting method selected
7.6	Explain how to minimise the impact of shooting on non-target species
7.7	Describe how behavioural characteristics of vertebrate pests and predators can be used to increase the effectiveness of shooting
7.8	Explain humane despatch methods
7.9	Explain how the following site characteristics can impact on shooting: • location • topography • habitat • other estate activity

- public access

7.10 Explain how the selection of shooting methods takes account of:

- pest and predator type
- characteristics of shooting location.

Learning outcome
The learner will: 8. Know relevant health and safety legislation and environmental good practice
Assessment criteria
The learner can: 8.1 Outline the current health and safety legislation, codes of practice and any additional requirements associated with controlling vertebrate pests and predators by shooting 8.2 Outline the health and safety requirements associated with the use of firearms and shooting 8.3 Outline the individual's specific responsibilities under environmental and conservation legislation in relation to monitoring and controlling pests and predators 8.4 Describe the situations when shooting can become unsafe and must be stopped 8.5 Explain how to minimise the dangers of disease or personal injury caused by handling dead animals 8.6 Describe how to safely dispose of vertebrate pests and predators according to legal requirements.

Learning outcome
The learner will: 9. Know how to maintain accurate records
Assessment criteria
The learner can: 9.1 Explain the reasons for keeping accurate, up-to-date vertebrate pest and predator records.

Unit 405 Control vertebrate pests and predators by shooting

Supporting information

Guidance

Simulation will not be acceptable where the unit is included in qualifications which verify competent performance. Please refer to Lantra's Assessment Strategy for further guidance.

Unit 406 Control unwanted vegetation

UAN:	**D/504/3652**
Level:	Level 2
Credit value:	3
GLH:	22
Relationship to NOS:	This unit is linked to Horticulture NOS.
Endorsement by a sector or regulatory body:	This unit is endorsed by Lantra, the Sector Skills Council for Land and Environment
Aim:	The aim and purpose of this unit is to provide the knowledge and skills required to control unwanted vegetation

Learning outcome
The learner will: 1. Be able to work safely
Assessment criteria
The learner can: 1.1 Identify the hazards and risks associated with the working area and the proposed work 1.2 Use appropriate tools, equipment and Personal Protective Equipment 1.3 Carry out work in accordance with relevant legislation, industry good practice and promotes health and safety 1.4 Carry out work to minimise environmental damage 1.5 Dispose of waste in line with legislation and codes of practice

Learning outcome
The learner will: 2. Be able to control unwanted vegetation
Assessment criteria
The learner can: 2.1 Identify vegetation which requires control 2.2 Control unwanted vegetation in line with work/job specification 2.3 Record clear and accurate information 2.4 Leave the site to a clean and tidy condition

Learning outcome
The learner will: 3. Know relevant health and safety legislation and industry good practice
Assessment criteria
The learner can: 3.1 Outline the current health and safety legislation, industry good practice and any additional requirements 3.2 Describe how to use and maintain tools, equipment and Personal Protective Equipment 3.3 Describe how environmental damage can be minimised 3.4 Describe the correct methods for disposing of waste

Learning outcome
The learner will: 4. Know how to control unwanted vegetation
Assessment criteria
The learner can: 4.1 Describe the best methods of control in relation to the **unwanted vegetation** 4.2 Describe how to determine the **control measures** to be implemented 4.3 State the implications of terrain, ground conditions, vegetation, season and weather in controlling unwanted vegetation 4.4 Describe the impact of using chemicals on the environment 4.5 Describe the use of mulching/mulch mats to aid the control of unwanted vegetation 4.6 Describe types of damage that would be acceptable under various circumstances

Range
Unwanted vegetation woody herbaceous grass competing hazardous notifiable climbers **Control measures** chemical

mechanical manual

Unit 406 Control unwanted vegetation

Supporting information

Guidance

Simulation will not be acceptable where the unit is included in qualifications which verify competent performance. Please refer to Lantra's Assessment Strategy for further guidance.

Unit 407 Use of machine powered winches in timber work

UAN:	**D/504/3683**
Level:	Level 2
Credit value:	5
GLH:	38
Relationship to NOS:	This unit is linked to Trees and Timber NOS.
Endorsement by a sector or regulatory body:	This unit is endorsed by Lantra, the Sector Skills Council for Land and Environment
Aim:	The aim of this unit is to provide the learner with the knowledge and skills required to prepare equipment, choker timber and operate mechanically powered line wire winches to pull trees or timber

Learning outcome
The learner will: 1. Be able to work safely
Assessment criteria
The learner can: 1.1 Identify the **hazards and risks** associated with the working area and the proposed work 1.2 Use appropriate tools, equipment and Personal Protective Equipment 1.3 Carry out work specification in accordance with relevant **legislation, industry good practice** 1.4 Carry out work to minimise environmental damage

Range
Hazards and risks Carry out a site risk assessment Identify route Assess the Operational and environmental requirements for the site Plan safe and efficient felling **Legislation, industry good practice** Store machinery, fuels and equipment securely on site Maintain the security of machinery and equipment on site Including: (i) check winch rope (ii) practical checks on all operating functions prior to winching in timber covering: • safety devices • winch controls • clutches • brakes • on winch rope and terminal components • ancillary equipment including hooks, shackles, sliders, pulleys, snatch blocks and chokering equipment Ensure the rope is of adequate capacity for the load to be applied and the distance to be pulled. Work safely when carrying out maintenance.

Learning outcome
The learner will: 2. Be able to prepare for winch operation
Assessment criteria
The learner can: 2.1 Carry out pre-start checks to test all operating functions of the equipment

Learning outcome
The learner will: 3. Be able to lay out cable and choker timber
Assessment criteria
The learner can: 3.1 **Select timber** for extraction according to specification

3.2	**Choker timber** avoiding damage to product, instability of machine, loss of load, or damage to standing trees or the wider environment
3.3	**Pull out cable** avoiding obstacles to the winching process
3.4	Select anchor points adequate for load applied
3.5	Maintain effective **communication and teamwork** with other operators on site

Range
Select timber Single or multiple felled trees, poles or other timber **Choker timber** Carry out on going visual checks Identify the timber to choker, position cable and choker as part of timber operations **Pull out cable** Including consideration of multiplication of forces on anchor points and ensure winch operator and chokerman are safeguarded in case of anchor point failure Keep roads, tracks, waterways etc. free of debris **Communication and teamwork** Respond to signals by hand, radio or other means to the winch operator directly or through a third party Maintain exclusion zones/risk zone safety distances

Learning outcome
The learner will: 4. Be able to operate winch to pull in timber
Assessment criteria
The learner can: 4.1 Operate the winch in keeping with **site constraints**, in a safe and effective way 4.2 Carry out on-going visual checks 4.3 Check timber is in a safe position before releasing.

Range
Site constraints Site the winch in a safe and secure position for direct and offset pulling. Utilise additional safeguards and comply with safety distances when winching near roads and tracks or where others are working. Stop winching when signalled to do so or if timber or cable is pulled towards an obstacle.

Learning outcome
The learner will: 5. Understand how to prepare for winch operation
Assessment criteria
The learner can: 5.1 Explain the **principles of powered winch operation** and the loads to be applied

Range
Principles of powered winch operation including the multiplication of forces when pulley (snatch) blocks are used Identify the points to inspect on the rope and terminal fixings, the range and signs of possible rope damage and the limits to rope wear and tear that are acceptable for winching timber. Describe the function of all operating controls for winch. Know the purpose of a 'certificate of conformity'

Learning outcome
The learner will: 6. Understand how to lay out cable and choker timber
Assessment criteria
The learner can: 6.1 Describe how recognise type of timber and species and select product categories to meet requirements 6.2 Explain the methods of chokering poles butt first and tip first 6.3 Describe **types of chokers and chokering attachments** to the cable 6.4 Explain the operator checks necessary when carrying out this work 6.5 State the **implications** of terrain, ground conditions, season, weather type of timber and species to laying out cable and chokering timber 6.6 Identify the **additional safeguards** required when working in offset, double rigging systems 6.7 Explain the **considerations** necessary when selecting strops and anchor points when setting pulleys used in offset pulling, double rigging

Range
Types of chokers and chokering attachments Including the optimum attachment position for the chokers on the timber

Describe the methods of attaching a cable to a vehicle when de-bogging or in self recovery

6.5 implications

On the cable and its terminal, strops, pulleys, shackles, hooks, chokers etc. before and during use, including identification of the load bearing capacity of the equipment

6.6 additional safeguards

Describe what to look out for when laying out the cable and chokering multiple stems

6.7 considerations

With regard to safe position of chokerman when winch is operated
Describe the signals and alternative methods of signalling to the winch operator or intermediate banksman with regard to multiplication of forces applied

Learning outcome
The learner will: 7. Understand how to operate winch to pull in timber
Assessment criteria
The learner can: 7.1 Explain the **operating techniques of using winches** 7.2 Summarise current health and safety legislation and industry good practice 7.3 Explain the importance of good communication and team work within the working environment 7.4 Explain the records required for management and legislative purposes

Range
Operating techniques of using winches Explain the capabilities and limitations of the winch used in relation to a range of sites and timber to be extracted that reduce damage to the ground, any remaining standing trees or the wider environment such as drains and roads to within specified limits define the safety clearance/safety zone from the cable that should be respected prior to giving the signal to the winch operator Explain the capabilities, limitations and methods of operating the winch on steep ground Describe the problems to be encountered and how to avoid them where timber is likely to come up against an obstacle

Describe the advantages and disadvantages of tip first and butt first winch extraction Describe the effect of poorly chokered or awkward shaped loads on winch extraction Explain the implications of extracting short log and whole tree extraction on winch operation

Learning outcome
The learner will: 8. Understand relevant health and safety legislation and industry good practice
Assessment criteria
The learner can: 8.1 Summarise current **health and safety legislation and industry good practice** 8.2 Explain the importance of good communication and team work within the working environment 8.3 Explain the **records** required for management and legislative purposes

Range
Health and safety legislation and industry good practice Outline the principles of safe manual handling techniques for tasks carried out Describe the possible pollution & environmental damage that could occur and how to respond appropriately Define current guidelines and safety clearances from overhead electricity conductors and what to do in the event of contact with power lines Describe additional problems, hazards and risks posed by working on steep slopes when winching

Records
and the importance of maintaining them

Unit 407 Use of machine powered winches in timber work

Supporting information

Guidance

Simulation will not be acceptable where the unit is included in qualifications which verify competent performance. Please refer to Lantra's Assessment Strategy for further guidance.

Unit 408 Prepare sites for planting

UAN:	**D/504/3697**
Level:	Level 2
Credit value:	2
GLH:	15
Relationship to NOS:	This unit is linked to Lantra
Endorsement by a sector or regulatory body:	This unit is endorsed by Lantra, the Sector Skills Council for Land and Environment

Learning outcome
The learner will: 1. Be able to work safely
Assessment criteria
The learner can: 1.1 Identify the hazards and risks associated with the working area and the proposed work 1.2 Use appropriate tools, equipment and Personal Protective Equipment 1.3 Carry out work in accordance with relevant legislation, industry good practice and promotes health and safety 1.4 Carry out work to minimise environmental damage 1.5 Dispose of waste in line with legislation and codes of practice

Learning outcome
The learner will: 2. Be able to prepare sites for planting
Assessment criteria
The learner can: 2.1 Select appropriate preparation methods in line with specification and the site conditions 2.2 Prepare the soil in line with the specification taking into account the weather and ground conditions 2.3 Make effective use of the available resources

Learning outcome
The learner will: 3. Know relevant health and safety legislation and industry good practice
Assessment criteria
The learner can: 3.1 Outline the current health and safety legislation, industry good practice and any additional requirements 3.2 Describe how to use and maintain tools, equipment and Personal Protective Equipment 3.3 Describe how environmental damage can be minimised 3.4 Describe the correct methods for disposing of waste

Learning outcome
The learner will: 4. Know how to prepare sites for planting
Assessment criteria
The learner can: 4.1 State how to deal with underground, ground and overhead obstructions 4.2 Describe the different **methods** for prepare sites for planting 4.3 Outline how to interpret specifications and select appropriate preparation methods 4.4 State how the site conditions affect the selection of cultivation methods

Range
Methods • screef • dollop • plough • scarify • rotovate • cultivate by hand

Unit 408 Prepare sites for planting

Supporting information

Guidance

Simulation will not be acceptable where the unit is included in qualifications which verify competent performance. Please refer to Lantra's Assessment Strategy for further guidance.

Unit 409 Prepare and produce charcoal

UAN:	**D/601/1651**
Level:	Level 2
Credit value:	3
GLH:	23
Relationship to NOS:	This unit is linked to Lantra
Endorsement by a sector or regulatory body:	This unit is endorsed by Lantra, the Sector Skills Council for Land and Environment
Aim:	The aim of this unit is to provide the learner with the knowledge and skills required to prepare and produce charcoal. It covers identifying suitable wood species to make charcoal, locating the site for a kiln, burning and preparing the charcoal for its market.

Learning outcome
The learner will: 1. Be able to prepare wood for charcoal production
Assessment criteria
The learner can: 1.1 Identify the wood species to be burnt 1.2 Determine the amount of wood to be burnt to meet the required output level of charcoal 1.3 Check the wood is dry enough to be burnt 1.4 Identify and prepare a suitable site for the kiln and set up the kiln 1.5 Ensure the safety of the public and other workers in the vicinity of the work area 1.6 Prepare wood to an appropriate size for the type of burn in a safe and efficient manner

Learning outcome
The learner will: 2. Be able to produce charcoal
Assessment criteria
The learner can: 2.1 Wear appropriate personal protective equipment throughout process 2.2 Ensure there is an adequate supply of water in case of emergency 2.3 Monitor and control the burn taking measures to control the burn as and when necessary to ensure the quality of the charcoal produced 2.4 Assess when the kiln should be closed down and do so 2.5 Grade and bag the charcoal to ensure it is suitable for its end use 2.6 Where appropriate sift the charcoal to remove the dust or fines

Learning outcome
The learner will: 3. Be able to work safely and minimise environmental damage
Assessment criteria
The learner can: 3.1 Work in a way which maintains health and safety, and is consistent with relevant legislation, codes of practice and any other relevant requirements 3.2 Carry out work in a way which minimises environmental damage 3.3 Dispose of waste safely and correctly

Learning outcome
The learner will: 4. Know how to prepare cord wood and make charcoal
Assessment criteria
The learner can: 4.1 Explain how the way wood is stacked has an impact on efficient drying 4.2 Explain how long wood should be dried prior to burning and how this may vary from species to species 4.3 Describe the characteristics of different wood species and the effect of species on the quality of charcoal produced 4.4 Explain the changes that occur throughout the burning process 4.5 Estimate the reduction in weight and volume of cord wood burnt for charcoal 4.6 Outline the significance of the smoke colour at different stages 4.7 Describe the type of ground and general location that is best suited for sitting a kiln

4.8 Describe two different types of charcoal kiln and the different methods of loading and lighting 4.9 Explain how the kiln should be stored during long periods of non-use

Learning outcome
The learner will: 5. Know relevant health and safety legislation and environmental good practice
Assessment criteria
The learner can: 5.1 Outline current relevant legislation, codes of practice and any other relevant requirements 5.2 Describe how environmental damage can be minimised 5.3 Describe the correct methods for disposing of waste 5.4 Carry out a risk assessment

Unit 409 Prepare and produce charcoal

Supporting information

Guidance

Simulation will not be acceptable where the unit is included in qualifications which verify competent performance. Please refer to Lantra's Assessment Strategy for further guidance.

Unit 410 Construct, maintain and repair stone pitched paths

UAN:	**F/502/3216**
Level:	Level 2
Credit value:	4
GLH:	30
Relationship to NOS:	This unit is linked to the Environmental Conservation NOS.
Endorsement by a sector or regulatory body:	This unit is endorsed by Lantra, the Sector Skills Council for Land and Environment

Learning outcome

The learner will:

1. Be able to construct, maintain and repair stone pitched paths

Assessment criteria

The learner can:

1.1 Identify the proposed line for the stone pitched path and the special considerations

1.2 Take steps to ensure that other site users are not put at risk by work by:

- providing information (signs etc.)
- re-routing access away from unsafe areas
- speaking to others on site

1.3 Provide drainage to specification to suit the site's needs and its expected levels of use

1.4 Construct, maintain or repair the stone pitched path to specification, and finish it in a way which fits in with the surrounding environment to include:

- setting out and location
- materials and resources
- timing and timescales
- working methods
- suitability of expected use and local tradition

1.5 Use appropriate methods to reduce the impact of erosion on areas around the path

1.6 Leave the site in a suitable condition when the work is finished.

1.7 Inform the appropriate person of any potential improvements to the work specification which are identified including:

- remedying the situation
- informing others who need to act.

Learning outcome
The learner will: 2. Be able to work safely and minimise environmental damage
Assessment criteria
The learner can: 2.1 Work in a way which maintains health and safety and is consistent with relevant legislation, codes of practice and any additional requirements 2.2 Carry out work in a manner which minimises environmental damage 2.3 Dispose of waste safely and correctly

Learning outcome
The learner will: 3. Be able to select, use and maintain relevant equipment
Assessment criteria
The learner can: 3.1 Select appropriate equipment for this area of work 3.2 Use equipment according to relevant legislation and manufacturer's instructions 3.3 Prepare, maintain and store equipment in a safe and effective working condition

Learning outcome
The learner will: 4. Know how to construct, maintain and repair stone pitched paths
Assessment criteria
The learner can: 4.1 State how to identify hazards, assess risks and interpret risk assessments 4.2 State the importance of using appropriate materials to produce a path which is fit for use and fits into the surrounding environment 4.3 State the methods for preparing the site and how to create suitable foundations and drainage 4.4 Describe the purpose of the path and how this relates to the specification and operations 4.5 Describe how to interpret and use relevant specifications 4.6 Describe the methods for constructing, maintaining and repairing stone pitched paths 4.7 Describe the special considerations which relate to the proposed line to include: • health and safety

- environmental impact
- access
- site use
- site drainage and soils
- site topography

4.8 State the problems which may occur during operations and how these should be dealt with
- accidental damage
- difficulties in meeting the specification
- disturbance to wildlife or environment

4.9 Describe how the site should be left on completion of operations

Learning outcome
The learner will: 5. Know the difference between stone pitched paths and other types of path
Assessment criteria
The learner can: 5.1 State the defining characteristics of reinforced paths compared to the following: • aggregate paths • flag paths • boardwalk paths • reinforced paths • bark paths 5.2 Identify typical uses of a stone pitched path

Learning outcome
The learner will: 6. Know relevant health and safety legislation and environmental good practice
Assessment criteria
The learner can: 6.1 Outline the current health and safety legislation, codes of practice and any additional requirements 6.2 Describe how environmental damage can be minimised 6.3 Describe the correct methods for disposing of waste

Learning outcome
The learner will: 7. Know the types of equipment required and how to maintain them
Assessment criteria

The learner can: 7.1 Describe the equipment which will be required for the activity 7.2 Describe the methods of maintaining the range of equipment

Unit 410 Construct, maintain and repair stone pitched paths

Supporting information

Guidance

Simulation will not be acceptable where the unit is included in qualifications which verify competent performance. Please refer to Lantra's Assessment Strategy for further guidance.

Unit 411 Support colleagues undertaking off ground tree related operations

UAN:	**F/504/0596**
Level:	Level 2
Credit value:	3
GLH:	23
Relationship to NOS:	This unit is linked to the Trees and Timber NOS
Endorsement by a sector or regulatory body:	This unit is endorsed by Lantra, the Sector Skills Council for Land and Environment
Aim:	The aim and purpose of this unit is to provide the learner with the knowledge and skills to support colleagues undertaking off ground tree-related operations

Learning outcome
The learner will: 1. Be able to work safely
Assessment criteria
The learner can: 1.1 Identify the **hazards and risks** associated with the working area and the proposed work 1.2 Use appropriate tools, equipment and personal protective equipment (PPE) 1.3 Work in a way which maintains health and safety and is consistent with relevant **legislation and industry good practice** 1.4 Carry out work to minimise environmental damage 1.5 Dispose of waste in line with legislation

Range
hazards and risks 3 hazards and the associated risks with the working area. 3 hazards and the associated risks with the proposed work. **legislation and industry good practice** INDG317; AFAG301

Learning outcome
The learner will: 2. Be able to support colleagues undertaking off ground tree related operations
Assessment criteria
The learner can: 2.1 Prepare **additional equipment** to support aerial operations 2.2 Pass and retrieve equipment to and from the aerial operator 2.3 Enter the drop zone safely and effectively 2.4 Assist with the removal of aerial tree sections 2.5 Maintain the climbing system 2.6 Clean and tidy the work area

Range
2.1 additional equipment Learner to set up appropriate pulling/lowering system Using ropes for pulling and lowering

Learning outcome
The learner will: 3. Know relevant health and safety legislation and industry good practice
Assessment criteria
The learner can: 3.1 Outline the current **health and safety legislation and industry good practice** 3.2 Describe how to **use and maintain tools, equipment and personal protective equipment** 3.3 Describe the correct methods for disposing of waste 3.4 Outline the **emergency planning procedures** relevant to the work area

Range
health and safety legislation and industry good practice 2 points Health and Safety at Work Act 1974; Provision and Use of Work Equipment Regulations 1998 (PUWER 98); 1 reason Arboriculture Forestry Advisory Group (AFAG) **use and maintain tools, equipment and personal protective equipment** 4 requirements Lifting Operations and Lifting Equipment Regulations 1998 (LOLER)

3 requirements
Work at Height Regulations 2005

emergency planning procedures
State 5 emergency procedures

Learning outcome
The learner will: 4. Know how to support colleagues undertaking off ground tree related operations
Assessment criteria
The learner can: 4.1 Explain how to **monitor and control sites** to ensure safe working 4.2 State why **aerial operators require support** 4.3 Describe how to ensure that **access equipment and systems** are in safe working order 4.4 Describe how to safely **pass and retrieve equipment** to the climber 4.5 State **why it is important to remove arising from the drop zone** as soon as it is safe to do so 4.6 Explain **why it is important to inform the climber promptly and clearly of any changes** in the hazards and risks of the site

Range
monitor and control sites 2 examples of each **aerial operators require support** 3 reasons **access equipment and systems** 5 access equip Access Equipment - includes access and egress, Mobile Elevated Work Platforms (MEWPS), hanging off ropes, rope access, rope positioning, ladders, scaffolding, cranes, spikes Climber in this case means the person working off the ground which could include Mobile Elevated Work Platforms or rope and harness **pass and retrieve equipment** 1 of each **why it is important to remove arising from the drop zone** 3 reasons

why it is important to inform the climber promptly and clearly of any changes

2 reasons

Unit 411 Support colleagues undertaking off ground tree related operations

Supporting information

Guidance

Simulation will not be acceptable where the unit is included in qualifications which verify competent performance. Please refer to Lantra's Assessment Strategy for further guidance.

Unit 412 Create an open drainage system

UAN:	**F/504/3644**
Level:	Level 2
Credit value:	3
GLH:	23
Relationship to NOS:	This unit is linked to the Trees and Timber NOS.
Endorsement by a sector or regulatory body:	This unit is endorsed by Lantra, the Sector Skills Council for Land and Environment
Aim:	The aim of this unit is to provide the learner with the knowledge and skills required to create a drainage system

Learning outcome
The learner will: 1. Be able to work safely
Assessment criteria
The learner can: 1.1 Identify the hazards and risks associated with the working area and the proposed work 1.2 Use appropriate tools, equipment and Personal Protective Equipment 1.3 Cary out work specification in accordance with relevant legislation, industry food practice and promotes health and safety 1.4 Carry out work to minimise environmental damage 1.5 Dispose of waste in line with legislation and codes of practice

Learning outcome
The learner will: 2. Be able to create and open drainage system
Assessment criteria
The learner can: 2.1 Create a new drain using the **resources available** to meet the given specification

Range
2.1 resources available

Make effective use of available resources

Learning outcome
The learner will: 3. Know relevant health and safety legislation and industry good practice
Assessment criteria
The learner can: 3.1 Outline the current health and safety legislation, industry good practice and any additional requirements 3.2 Describe how to use and maintain tools, equipment and Personal Protective Equipment 3.3 Describe how environmental damage can be minimised 3.4 Describe the correct methods for disposing of waste.

Learning outcome
The learner will: 4. Know how to create open drainage systems
Assessment criteria
The learner can: 4.1 State how to interpret risk assessments 4.2 Describe how to **interpret plans and specification** for a new drainage system 4.3 Describe how to **create drains in a range of soil types and situations** 4.4 Explain how **environmental factors** can affect drainage systems 4.5 Explain how to extend an existing drainage system 4.6 Describe how to recognise specified aspects of the site which should be preserved.

Range
interpret plans and specification In relation to • route • profile • depth • grade • flow rate • treatment of excavated material • tolerance of specification • legislative and organisational environmental requirements **Create drains in a range of soil types and situations** including organic and mineral soils in relation to • open ground • felled forest

- woodland sites

Environmental factors

- terrain
- soil texture
- soil type
- structure
- season
- weather
- flow rate of drainage system

Unit 412 Create an open drainage system

Supporting information

Guidance

Simulation will not be acceptable where the unit is included in qualifications which verify competent performance. Please refer to Lantra's Assessment Strategy for further guidance.

Unit 413 Process arising from tree work operations

UAN:	**F/504/3658**
Level:	Level 2
Credit value:	1
GLH:	8
Relationship to NOS:	This unit is linked to the Trees and Timber NOS.
Endorsement by a sector or regulatory body:	This unit is endorsed by Lantra, the Sector Skills Council for Land and Environment

Learning outcome
The learner will: 1. Be able to work safely
Assessment criteria
The learner can: 1.1 Identify the hazards and risks associated with the working area and the proposed work 1.2 Use appropriate tools, equipment and Personal Protective Equipment 1.3 Carry out work in accordance with relevant legislation, industry good practice and promotes health and safety 1.4 Carry out work to minimise environmental damage

Learning outcome
The learner will: 2. Be able to process arising from tree work operations
Assessment criteria
The learner can: 2.1 Prepare arising in accordance with the specification, the site, relevant legislation and industry guidelines 2.2 Process arising appropriate to their condition , the specification and the site requirements 2.3 Leave the site to a clean and tidy condition

Learning outcome
The learner will: 3. Know relevant health and safety legislation and industry good practice
Assessment criteria
The learner can: 3.1 Outline the current health and safety legislation, industry good practice and any additional requirements 3.2 Describe how to use and maintain tools, equipment and Personal Protective Equipment 3.3 Describe how environmental damage can be minimised

Learning outcome
The learner will: 4. Know how to process arising from tree work operations
Assessment criteria
The learner can: 4.1 State how to secure the work site in relation to the process and public access 4.2 Describe how to select the appropriate **method of disposal or onward transport of arising** 4.3 Describe the different uses for arising

Range
Method of disposal or onward transport of arising In relation to: • burning • stacking • spreading • further processing • re-use as another product

Unit 413 Process arising from tree work operations

Supporting information

Guidance

Simulation will not be acceptable where the unit is included in qualifications which verify competent performance. Please refer to Lantra's Assessment Strategy for further guidance.

Unit 414 Prepare, drive and manoeuvre forwarder

UAN:	**F/504/3689**
Level:	Level 2
Credit value:	5
GLH:	38
Relationship to NOS:	This unit is linked to the Trees and Timber NOS
Endorsement by a sector or regulatory body:	This unit is endorsed by Lantra, the Sector Skills Council for Land and Environment
Aim:	The aim of this unit is to provide the learner with the knowledge and skills required to prepare, manoeuvre and operate a forwarder in a range of woodland and forestry situations.

Learning outcome
The learner will: 1. Be able to work safely
Assessment criteria
The learner can: 1.1 Identify the **hazards and risks associated** with the working area and the proposed work 1.2 Use appropriate tools, equipment and Personal Protective Equipment 1.3 Carry out **work specification** in accordance with relevant legislation, industry good practice and maintains health and safety 1.4 Carry out work to minimise environmental damage.

Range
Hazards and risks associated Carry out a site risk assessment Identify route Assess the Operational and environmental requirements for the site Plan safe and efficient felling

Work specification
Store machinery, fuels and equipment securely on site.

Learning outcome
The learner will: 2. Be able to prepare, drive and manoeuvre forwarder
Assessment criteria
The learner can: 2.1 Carry out **pre and post-start checks** to test all operating functions of the equipment 2.2 **Drive the machine on site** in a safe and effective way 2.3 **Manoeuvre the machine on site** in a safe and effective way.

Range
Pre and post-start checks including pre start visual checks to base machine safety devices, prior to forwarding, including fire control equipment **Drive the machine on site** When loaded to specified capacity and in keeping with site constraints. Create brash mats with small trees, tops etc. to reduce ground damage and aid flotation Store machinery securely on site **Manoeuvre the machine on site** When loaded to specified capacity and in keeping with site constraints. Create brash mats with small trees, tops etc. to reduce ground damage and aid flotation.

Learning outcome
The learner will: 3. Be able to operate grapple
Assessment criteria
The learner can: 3.1 Use machine to load/feed wood products 3.2 Grade products to facilitate subsequent handling, processing or uplift for onward dispatch 3.3 Separate products for subsequent handling, processing or uplift for onward dispatch 3.4 Stack produce flush to a safe and stable height and condition.

Learning outcome
The learner will: 4. Know how to prepare forwarder
Assessment criteria
The learner can: 4.1 State the **safety requirements, routine and functional checks** required for machine and operator protection.

Range
Safety requirements, routine and functional checks such as OPS, ROPS and FOPS and other safety devices the need for carrying out routine operator checks and basic maintenance Identify the function of all operating controls for drive unit and forwarding equipment.

Learning outcome
The learner will: 5. Know how to drive and manoeuvre forwarder
Assessment criteria
The learner can: 5.1 Describe **safe driving techniques** that should be used on site 5.2 State the implications of terrain, ground conditions, season, weather and tree condition on planning access routes and driving the machine 5.3 Outline the **implications** of extracting long logs, poles or tree length timber to forwarder extraction 5.4 Discuss the capabilities and limitations of the loader when loading and unloading 5.5 Summarise safe stacking heights, stability of stacks and signing requirements 5.6 Describe how to segregate and grade produce to meet required specification.

Range
Safe driving techniques

Reduce damage to the ground, any remaining standing trees or the wider environment to within specified limits **implications** Describe how to use recovery and de-bogging techniques.

Learning outcome
The learner will: 6. Know relevant health and safety legislation and industry good practice
Assessment criteria
The learner can: 6.1 Outline current **health and safety legislation, codes of practice and any additional requirements** 6.2 State why it is important to maintain good communication and team work within the working environment 6.3 Describe the types of records that may be required for management and legislative requirements

Range
Health and safety legislation, codes of practice and any additional requirements Explain the implications of working at height in relation to routine operator checks and basic maintenance. Explain how to plan, set up and use maintenance and fuelling areas. Discuss current guidelines on machinery operation, risk zones and safety clearances from overhead electricity conductors and what to do in the event of contact with power lines. And the importance of accurate record keeping PUWER LOLER

Unit 414 Prepare, drive and manoeuvre forwarder

Supporting information

Guidance

Simulation will not be acceptable where the unit is included in qualifications which verify competent performance. Please refer to Lantra's Assessment Strategy for further guidance.

Unit 415 Promote responsible public use of the environment

UAN:	**H/502/3161**
Level:	Level 2
Credit value:	4
GLH:	30
Relationship to NOS:	This unit is linked to Lantra
Endorsement by a sector or regulatory body:	This unit is endorsed by Lantra, the Sector Skills Council for Land and Environment

Learning outcome
The learner will: 1. Be able to safeguard members of the public and others
Assessment criteria
The learner can: 1.1 Maintain the safety of the public and others during visits to the site 1.2 Work safely encouraging everyone throughout all activities to follow current legislation, codes of practice, organisational policies and procedures

Learning outcome
The learner will: 2. Be able to safeguard the environment
Assessment criteria
The learner can: 2.1 Provide information and advice to encourage members of the public to use the site in a way which is consistent with its purpose and condition 2.2 Identify visitors and others who may cause a threat and take the appropriate action to minimise any damage or risk, covering two of the following: • to the site and its contents • to flora and fauna • to own personal health and safety • to other people's health and safety.

Learning outcome
The learner will: 3. Know how to safeguard members of the public and the environment
Assessment criteria
The learner can: 3.1 Outline organisational codes of practice and requirements about the care of visitors and other members of the public, eg supporting people in terms of their safety and welfare by providing information and advice 3.2 State the needs of the public and others, and when to influence their use of the site and offer advice or help 3.3 State why the organisation may have certain access policies or specific areas for public access 3.4 Explain the importance of balancing the needs of the site with the needs of the public and others 3.5 Describe the features of the site and the effects the public and others may have on it 3.6 Outline threats the public may pose to: • the site and its contents • flora and fauna • own personal health and safety • other people's health and safety 3.7 Explain how to handle people who cause a threat to sites in an effective, safe and courteous way.

Learning outcome
The learner will: 4. Know relevant health and safety legislation and environmental good practice
Assessment criteria
The learner can: 4.1 Outline the current health and safety legislation, codes of practice and any additional requirements

Unit 415 Promote responsible public use of the environment

Supporting information

Guidance

Simulation will not be acceptable where the unit is included in qualifications which verify competent performance. Please refer to Lantra's Assessment Strategy for further guidance.

Unit 416 Construct, maintain and repair signs/way markers

UAN:	**H/502/3225**
Level:	Level 2
Credit value:	3
GLH:	23
Relationship to NOS:	This unit is linked to the Environmental Conservation NOS
Endorsement by a sector or regulatory body:	This unit is endorsed by Lantra, the Sector Skills Council for Land and Environment

Learning outcome
The learner will: 1. Be able to construct, maintain and repair signs/way markers
Assessment criteria
The learner can: 1.1 Prepare the site appropriately, and in a way which minimises the effect on the surrounding environment to include: • setting out and location • materials and resources • timing and timescales • working methods • suitability for expected use and local tradition 1.2 Make sure that the signs/way markers are secure, and suitable for its intended use 1.3 Construct, maintain or repair the signs/way markers to specification, and finish it in a way which fits in with the surrounding environment 1.4 Take the appropriate action without delay when problems occur during your work including: • accidental damage • difficulties in meeting the specification • disturbance to wildlife or environment 1.5 Inform the appropriate person of any potential improvements to the work specification 1.6 Make the site as good as possible when work is finished

Learning outcome
The learner will: 2. Be able to work safely and minimise environmental damage
Assessment criteria
The learner can: 2.1 Work in a way which maintains health and safety and is consistent with relevant legislation, codes of practice and any additional requirements 2.2 Carry out work in a manner which minimises environmental damage 2.3 Dispose of waste safely and correctly.

Learning outcome
The learner will: 3. Be able to select, use and maintain relevant equipment
Assessment criteria
The learner can: 3.1 Select and use appropriate equipment for this area of work 3.2 Prepare, maintain and store equipment in a safe and effective working condition.

Learning outcome
The learner will: 4. Know how to construct, maintain and repair signs/way markers
Assessment criteria
The learner can: 4.1 Describe how to identify hazards and assess risks 4.2 Describe how to interpret risk assessments 4.3 Describe suitable methods for preparing the site 4.4 State the purpose of the signs/way markers 4.5 Outline how to interpret and use relevant specifications covering: • setting out and location • materials and resources • timing and timescales • working methods • suitability for expected use and local tradition 4.6 Outline the context within which the signs/way markers are set, and how this relates to the specification 4.7 Describe methods for constructing, maintaining and repairing signs/way markers 4.8 Describe problems which may occur during operations and how these should be dealt with • accidental damage

- difficulties in meeting the specification
- disturbance to wildlife or environment

4.9 Outline the required condition of the site on completion of operations.

Learning outcome
The learner will: 5. Distinguish between different types of access structure
Assessment criteria
The learner can: 5.1 Identify and describe the defining characteristics of signs/ way markers compared to: • simple bridges • fords • steps.

Learning outcome
The learner will: 6. Know relevant health and safety legislation and environmental good practice
Assessment criteria
The learner can: 6.1 Outline the current health and safety legislation, codes of practice and any additional requirements 6.2 Describe how environmental damage can be minimised 6.3 Describe the correct methods for disposing of waste.

Learning outcome
The learner will: 7. Know the types of equipment required and how to maintain them
Assessment criteria
The learner can: 7.1 Describe the equipment which will be required for the activity 7.2 Describe the methods of maintaining the range of equipment.

Unit 416 Construct, maintain and repair signs/way markers

Supporting information

Guidance

Simulation will not be acceptable where the unit is included in qualifications which verify competent performance. Please refer to Lantra's Assessment Strategy for further guidance.

Unit 417 Control vertebrate pest populations using chemical means

UAN:	**H/502/3967**
Level:	Level 2
Credit value:	6
GLH:	45
Relationship to NOS:	This unit is linked to Environmental Conservation NOS
Endorsement by a sector or regulatory body:	This unit is endorsed by Lantra, the Sector Skills Council for Land and Environment

Learning outcome
The learner will: 1. Be able to determine the need for vertebrate pest control
Assessment criteria
The learner can: 1.1 Interpret signs to determine vertebrate pest and predator activity 1.2 Identify the presence of non- target species 1.3 Select a control method appropriate to the vertebrate pests, the characteristics of the site and its location

Learning outcome
The learner will: 2. Be able to control vertebrate pest populations using chemical means
Assessment criteria
The learner can: 2.1 Develop a regime to control the application of chemical agents 2.2 Set-up and maintain the necessary equipment to effectively control application of chemicals according to manufacturers' recommendations 2.3 Handle and use chemicals safely and efficiently according to manufacturers' recommendations 2.4 Implement controls in a manner which minimises the risk to non-target species and the environment

2.5 Monitor the effectiveness of the control method 2.6 Take appropriate action when problems arise during pest control activities

Learning outcome
The learner will: 3. Be able to work safely and minimise environmental damage
Assessment criteria
The learner can: 3.1 Work in a way which maintains health and safety and is consistent with relevant legislation, codes of practice and any additional requirements 3.2 Carry out work in a manner which minimises environmental damage 3.3 Dispose of any corpses and spent materials according to legal requirements

Learning outcome
The learner will: 4. Be able to maintain accurate records
Assessment criteria
The learner can: 4.1 Maintain accurate vertebrate pest control records

Learning outcome
The learner will: 5. Know how to determine the need for vertebrate pest control
Assessment criteria
The learner can: 5.1 Identify common pests species 5.2 Describe the behavioural characteristics of vertebrate pests and how these can influence the control method selected 5.3 Describe the effects of the seasons and weather conditions on monitoring and control activities 5.4 Describe the effects of vertebrate pests on animal/plant populations 5.5 Explain how to interpret the following signs to determine pest activity: • direct sightings • runs • footprints • damage to habitat

- dead animals
- kills
- sounds
- smells
- droppings.

Learning outcome
The learner will: 6. Know how to control vertebrate pest populations using chemical means
Assessment criteria
The learner can: 6.1 Describe common vertebrate pest species and the significance of their presence 6.2 Describe the characteristics of different vertebrate pest species, and their potential effects on sites 6.3 Explain how to adapt pest control methods to take account of changes in the weather 6.4 Explain why it is important to control the application of chemicals for non-target species 6.5 Explain how to monitor the effectiveness of the control methods 6.6 Explain the actions to take when the following problems arise during vertebrate pest control: • chemical spillage • malfunction of equipment • changes in environmental conditions.

Learning outcome
The learner will: 7. Know relevant health and safety legislation and environmental good practice
Assessment criteria
The learner can: 7.1 Outline the current health and safety legislation, codes of practice and any additional requirements associated with trapping activities 7.2 Explain how the Control of Substances Hazardous to Health Act controls the use of chemicals 7.3 Outline the legal restrictions on the use of chemicals including the certificates and training required before chemical can be used 7.4 Outline the individual's specific responsibilities under environmental and conservation legislation in relation to monitoring and controlling pests

7.5	Describe how to safely dispose of vertebrate pests and predators according to legal requirements

Learning outcome
The learner will: 8. Know how to maintain accurate records
Assessment criteria
The learner can: 8.1 Explain the reason for keeping accurate, up-to-date vertebrate pest control records

Unit 417 Control vertebrate pest populations using chemical means

Supporting information

Guidance

Simulation will not be acceptable where the unit is included in qualifications which verify competent performance. Please refer to Lantra's Assessment Strategy for further guidance.

Unit 418 Process coppice materials and greenwood products

UAN:	**H/504/3667**
Level:	Level 2
Credit value:	4
GLH:	30
Relationship to NOS:	This unit is linked to the Trees and Timber NOS.
Endorsement by a sector or regulatory body:	This unit is endorsed by Lantra, the Sector Skills Council for Land and Environment
Aim:	The aim of this unit is to provide the learner with the knowledge and skills required to process wood for green wood products

Learning outcome
The learner will: 1. Be able to work safely
Assessment criteria
The learner can: 1.1 Identify the **hazards and risks** associated with the working area and the proposed work 1.2 Use appropriate tools, equipment and personal protective equipment (PPE) safely 1.3 Carry out work in accordance with relevant legislation, industry good practice and maintains health and safety

Range
Hazards and risks Complete an appropriate risk assessment

Learning outcome
The learner will: 2. Be able to process coppice materials and green wood products
Assessment criteria
The learner can: 2.1 Agree specification for coppice products

2.2	Plan a **work schedule** to maximise material usage and minimise waste
2.3	Assess the quality of timber as to its suitability for the green wood product
2.4	Process **materials into products** using the appropriate method
2.5	**Present** the products to meet the specification.

Range
Work schedule With SMART Objective **Materials into products** Prepare and process **Present** Finish and present

Learning outcome
The learner will: 3. Know relevant health and safety legislation and industry good practice
Assessment criteria
The learner can: 3.1 Outline the current health and safety legislation, industry good practice and any additional requirements 3.2 Describe how to use and maintain tools, equipment and personal protective equipment (PPE).

Learning outcome
The learner will: 4. Know how to process coppice materials and green wood products
Assessment criteria
The learner can: 4.1 Describe how to interpret specifications to identify and cost all **elements** for a job 4.2 Describe the values of primary coppice species 4.3 Describe how to recognise appropriate **woods** and main reasons for their use 4.4 Describe how the seasonality of coppice material can affect the availability and durability of a product 4.5 Describe the methods used to prolong the workable life of seasonal coppice materials

4.6	Describe how to assess the quality of the coppice materials and final products
4.7	Describe different processing methods
4.8	Assess **wood condition**
4.9	Describe how to work different types of split wood.

Range

Elements

Including:

- estimate the amount of materials required,
- the rate of uptake
- avoid over-or under stocking

Woods

The different properties and uses of different woodland tree species

- hazel
- oak
- ash
- willow
- sycamore
- birch
- beech
- chestnut

Wood condition

- peeling
- splitting
- cleaving
- riving
- sawing
- axing, chopping
- draw knifing
- rate of growth
- grain structure and continuity
- presence of knots
- fungal attack
- insect attack
- degree of seasoning
- age
- rots, splits and shanks.

Unit 418 Process coppice materials and greenwood products

Supporting information

Guidance

Simulation will not be acceptable where the unit is included in qualifications which verify competent performance. Please refer to Lantra's Assessment Strategy for further guidance.

Unit 419 Sharpen and maintain edged hand tools

UAN:	**H/504/3670**
Level:	Level 2
Credit value:	2
GLH:	15
Relationship to NOS:	This unit is linked to the Trees and Timber NOS.
Endorsement by a sector or regulatory body:	This unit is endorsed by Lantra, the Sector Skills Council for Land and Environment
Aim:	The aim and purpose of this unit is to provide the learner with the knowledge and skills to sharpen and maintain edged hand tools

Learning outcome
The learner will: 1. Be able to work safely
Assessment criteria
The learner can: 1.1 Identify the hazards and risks associated with the working area and the proposed work 1.2 Use appropriate tools, equipment and personal protective equipment (PPE) 1.3 Carry out work in accordance with relevant legislation, industry good practice and maintains health and safety

Learning outcome
The learner will: 2. Be able to sharpen and maintain edged hand tools
Assessment criteria
The learner can: 2.1 Identify **minor defects** in a hand tool handle or shaft 2.2 Maintain hand tool handle or shaft 2.3 Identify defective and 'dull' cutting edges 2.4 Identify major defects in tools

2.5 **Repair tool** to a safe working condition

Range
Minor defects Fix any minor defects **Repair tool** replacing the handle regrinding the bevel honing the cutting edge store tools correctly to maintain condition and are safe to use

Learning outcome
The learner will: 3. Know relevant health and safety legislation and industry good practice
Assessment criteria
The learner can: 3.1 Outline the current health and safety legislation, industry good practice and any additional requirements 3.2 Describe how to use and maintain tools, equipment and personal protective equipment (PPE) 3.3 Describe the correct methods for disposing of waste 3.4 Identify legitimate sources and quality criteria for professional tools

Learning outcome
The learner will: 4. Know how to sharpen and maintain edged hand tools
Assessment criteria
The learner can: 4.1 Describe the different methods of fitting a new handle or shaft and the appropriate materials 4.2 State the different **methods and devices** for sharpening tools 4.3 State how to safely test the sharpness of a tool and when a tool requires sharpening 4.4 Compare the different **tool edge profiles** and their appropriateness for different purposes

Range
Methods and devices

Appropriate use of angle grinders appropriate use of a range of sharpening stones and the difference between oil and wet stones

Tool edge profiles

Identify the bevel and edge characteristics of individual edge tools required to fulfil their specific function

the importance of 'temper' in an edge tool

Unit 419 Sharpen and maintain edged hand tools

Supporting information

Guidance

Simulation will not be acceptable where the unit is included in qualifications which verify competent performance. Please refer to Lantra's Assessment Strategy for further guidance.

Unit 420 Extract wood and wood products using small motorised equipment

UAN:	**H/504/3684**
Level:	Level 2
Credit value:	4
GLH:	30
Relationship to NOS:	This unit is linked to the Trees and Timber NOS.
Endorsement by a sector or regulatory body:	This unit is endorsed by Lantra, the Sector Skills Council for Land and Environment

Learning outcome
The learner will: 1. Be able to work safely
Assessment criteria
The learner can: 1.1 Identify the hazards and risks associated with the **working area** and the proposed work 1.2 Use appropriate tools, equipment and Personal Protective Equipment 1.3 Carry out work specification in accordance with relevant legislation, industry good practice and maintains health and safety 1.4 Carry out work to minimise environmental damage

Range
Working area Prepare access and egress routes in a serviceable condition

Learning outcome
The learner will: 2. Be able to extract wood and wood products
Assessment criteria
The learner can: 2.1 Extract wood products effectively and efficiently

2.2	Unload products in accordance with the specification
2.3	**Grade products** in accordance with the specification
2.4	Accumulate products in agreed area

Range
Grade products separate products in accordance with the specification

Learning outcome
The learner will: 3. Know relevant health and safety legislation and industry good practice
Assessment criteria
The learner can: 3.1 Outline the current health and safety legislation and industry good practice 3.2 Describe how environmental damage can be minimised

Learning outcome
The learner will: 4. Know how to extract wood and wood products
Assessment criteria
The learner can: 4.1 Describe the need for and the benefits of **carrying out routine operator checks and basic maintenance i**n line with manufacturers' recommendations 4.2 Explain the implications of terrain, ground conditions, season, weather, load and timber type/condition on **planning access routes and driving the machine** 4.3 Describe the effect of unbalanced loads on extraction 4.4 Describe methods of grading, stacking and handling products

Range
Carrying out routine operator checks and basic maintenance i Describe how to use and maintain tools, equipment and Personal Protective Equipment **Planning access routes and driving the machine** Explain how to select suitable extraction routes State the capabilities and limitations of the machinery used including slope limitations and maximum safe working load

Unit 420 Extract wood and wood products using small motorised equipment

Supporting information

Guidance

Simulation will not be acceptable where the unit is included in qualifications which verify competent performance. Please refer to Lantra's Assessment Strategy for further guidance.

Unit 421 Access a tree using a rope and harness

UAN:	**H/504/0316**
Level:	Level 2
Credit value:	3
GLH:	22
Relationship to NOS:	This unit is linked to the Trees and Timber NOS
Endorsement by a sector or regulatory body:	This unit is endorsed by Lantra, the Sector Skills Council for Land and Environment

Learning outcome
The learner will: 1. Be able to work safely
Assessment criteria
The learner can: 1.1 Identify the **hazards and risks associated** with the working area and the proposed work 1.2 Work in a way which maintains health and safety and is consistent with relevant legislation and industry good practice 1.3 Use access and tree climbing equipment and personal protective equipment (PPE) 1.4 Carry out work to **minimise environmental damage**

Range
Hazards and risks associated 3 hazards and the associated risks with the working area 3 hazards and the associated risks with the proposed work **Minimise environmental damage** Check the working area for potential (negative) environmental damage Report finding(s) as appropriate Carry out any required control measure(s)

Learning outcome
The learner will: 2. Be able to access a tree using a rope and harness
Assessment criteria
The learner can: 2.1 Perform a **hazard evaluation** and Work at Height assessment of the tree prior to commencing the work 2.2 Inspect access equipment to ensure it is safe and fit for use under manufacturers instructions and relevant legislation 2.3 Use **access and positioning methods** appropriate to the assessed risk 2.4 Use appropriate positioning techniques within the crown 2.5 Communicate appropriately with ground staff 2.6 Descend tree in a controlled manner and remove equipment appropriately

Range
Hazard evaluation 6 hazards of the tree **Access and positioning methods** Minimum 2 branch walks 1 branch walk to be 5m from stem Supplementary anchor point to be demonstrated on 1 branch

Learning outcome
The learner will: 3. Know relevant health and safety legislation and industry good practice
Assessment criteria
The learner can: 3.1 Outline the **key health and safety legislation and industry good practice** 3.2 Describe how to use and maintain tools, equipment and personal protective equipment 3.3 Outline the **emergency planning procedures** relevant to the work area

Range
Key health and safety legislation and industry good practice Lifting Operations and Lifting Equipment Regulations 1998 (LOLER) The Provision and Use of Work Equipment Regulations 1998 (PUWER) Work at Height Regulations 2005

Arboricultural Forestry Advisory Guides (AFAG)
The Arboricultural Association Technical Guides

Emergency planning procedures
State 5 emergency procedures

Learning outcome
The learner will: 4. Know how to access a tree using a rope and harness
Assessment criteria
The learner can: 4.1 Describe different **methods used to safely access a tree** 4.2 Describe different **positioning techniques** used within crowns 4.3 Describe how to ensure that access equipment and systems are in safe working order 4.4 Outline the basic principles of tree biology and how they impact on the work 4.5 Explain how the species, condition of trees and time of year affect the work

Range
4.1 methods used to safely access a tree 3 methods **4.2 positioning techniques** Describe 2 techniques

Unit 421 Access a tree using a rope and harness

Supporting information

Guidance

Simulation will not be acceptable where the unit is included in qualifications which verify competent performance. Please refer to Lantra's Assessment Strategy for further guidance.

Unit 422 Maintaining plants outdoors

UAN:	**J/502/1533**
Level:	Level 2
Credit value:	3
GLH:	23
Relationship to NOS:	This unit is linked to Horticulture NOS
Endorsement by a sector or regulatory body:	This unit is endorsed by Lantra, the Sector Skills Council for Land and Environment

Learning outcome
The learner will: 1. Be able to select, use tools and maintain relevant equipment
Assessment criteria
The learner can: 1.1 Select appropriate equipment for this area of work 1.2 Use equipment according to relevant legislation and manufacturer's instructions 1.3 Prepare, maintain and store equipment in a safe and effective working condition

Learning outcome
The learner will: 2. Be able to maintain the health of plants outdoors
Assessment criteria
The learner can: 2.1 Inspect plants as instructed 2.2 Identify all of the following threats to promote plant health: • pests • diseases • disorders • unfavourable conditions • competing growth 2.3 Use correct and effective methods of dealing with threats to plant health 2.4 Promote and maintain health growth using all of the following methods: • feeding • watering

- surface cultivation
- mulching

Learning outcome
The learner will: 3. Be able to work safely and minimise environmental damage
Assessment criteria
The learner can: 3.1 Work in a way which maintains health and safety, is consistent with relevant legislation, codes of practice and any additional requirements 3.2 Carry out work in a manner which minimises environmental damage 3.3 Dispose of waste safely and correctly

Learning outcome
The learner will: 4. Know how to maintain the health of plants outdoors
Assessment criteria
The learner can: 4.1 Describe how to check and report signs of damage or threats to health to include; • pests • diseases • disorders • unfavourable conditions • competing growth 4.2 State how seasonal weather conditions affect plant growth and health 4.3 Describe the different methods used to promote plant health including: • feeding • watering • surface cultivation • mulching 4.4 Describe the effects of soil conditions on plant growth 4.5 State why watering regimes vary for different soils and plants 4.6 Describe how the correct use of agrochemicals/pesticides can improve plant health 4.7 Describe how the incorrect use of agrochemicals / pesticides can harm plants 4.8 Describe the methods of dealing with threats to plant health covering; physical, cultural and irrigation.

Learning outcome
The learner will: 5. Know relevant health and safety and animal welfare legislation and environmental good practice
Assessment criteria
The learner can: 5.1 Outline the current health and safety and animal welfare legislation, codes of practice and any additional requirements 5.2 Describe how environmental damage can be minimised 5.3 Describe the correct methods for disposing of organic and inorganic waste.

Unit 422 Maintaining plants outdoors

Supporting information

Guidance

Simulation will not be acceptable where the unit is included in qualifications which verify competent performance. Please refer to Lantra's Assessment Strategy for further guidance.

Unit 423 Site and install site furniture and structures

UAN:	**J/502/3217**
Level:	Level 2
Credit value:	2
GLH:	15
Relationship to NOS:	This unit is linked to the Trees and Timber NOS.
Endorsement by a sector or regulatory body:	This unit is endorsed by Lantra, the Sector Skills Council for Land and Environment

Learning outcome

The learner will:

1. Be able to site and install site furniture and structures

Assessment criteria

The learner can:

1.1 Select the most appropriate place to site the structure in line with job specification and site conditions
- slope
- drainage
- access for work and use
- setting out and location
- materials and resources
- timing and timescales
- working methods
- suitability of expected use and local tradition

1.2 Take the appropriate action without delay when you have problems meeting specifications.

1.3 Install the structure in line with job specification either:
- large
- small

1.4 Ensure that the structure is safe and secure before leaving the site

1.5 Inform your line manager of any potential improvements to the work specification which you identify

1.6 Leave the work area safe and tidy after work is completed

Learning outcome
The learner will: 2. Be able to select, use and maintain relevant equipment
Assessment criteria
The learner can: 2.1 Work in a way which maintains health and safety and is consistent with relevant legislation, codes of practice and any additional requirements 2.2 Carry out work in a manner which minimises environmental damage 2.3 Dispose of waste safely and correctly

Learning outcome
The learner will: 3. Be able to select, use and maintain relevant equipment
Assessment criteria
The learner can: 3.1 Select appropriate equipment for this area of work 3.2 Use equipment according to relevant legislation and manufacturer's instructions 3.3 Prepare, maintain and store equipment in a safe and effective working condition

Learning outcome
The learner will: 4. Understand the need to site and install site furniture and structures
Assessment criteria
The learner can: 4.1 Describe the factors which determine where a structure should be sited • slope • drainage • access for work and use 4.2 Describe the purpose of the structure 4.3 Summarise how to interpret and use relevant specifications • setting out and location • materials and resources • timing and timescales • working methods • suitability of expected use and local tradition 4.4 Outline the context within which the structure is to be set, and how this relates to the specification 4.5 Describe methods for installing both small and large structures

4.6 Describe problems which may occur during operations and how these should be dealt with 4.7 Describe the required condition of the site on completion of operations

Learning outcome
The learner will: 5. Know relevant health and safety legislation and environmental good practice
Assessment criteria
The learner can: 5.1 Outline the current health and safety legislation, codes of practice and any additional requirements 5.2 Describe how environmental damage can be minimised 5.3 Describe the correct methods for disposing of waste

Learning outcome
The learner will: 6. Know the types of equipment required and how to maintain them
Assessment criteria
The learner can: 6.1 Describe the equipment which will be required for the activity 6.2 Describe the methods of maintaining the range of equipment

Unit 423 Site and install site furniture and structures

Supporting information

Guidance

Simulation will not be acceptable where the unit is included in qualifications which verify competent performance. Please refer to Lantra's Assessment Strategy for further guidance.

Unit 424 Use a powered pole pruner

UAN:	**J/504/0597**
Level:	Level 2
Credit value:	2
GLH:	15
Relationship to NOS:	This unit is linked to Trees and Timber NOS.
Endorsement by a sector or regulatory body:	This unit is endorsed by Lantra, the Sector Skills Council for Land and Environment

Learning outcome
The learner will: 1. Be able to work safely
Assessment criteria
The learner can: 1.1 Identify the **hazards and risks** associated with the working area and the proposed work 1.2 Use appropriate tools, equipment and personal protective equipment (PPE) 1.3 Work in a way which maintains health and safety and is consistent with relevant legislation and industry good practice 1.4 Carry out work to **minimise environmental damage** 1.5 Dispose of waste safely in line with legislation.

Range
Hazards and risks 3 hazards and the associated risks with the working area. 3 hazards and the associated risks with the proposed work. **Minimise environmental damage** Check the working area for potential (negative) environmental damage Report finding(s) as appropriate Carry out any required control measure(s)

Learning outcome
The learner will: 2. Be able to use a powered pole pruner
Assessment criteria
The learner can: 2.1 Check all **safety features** on the powered pole pruner are present and not damaged 2.2 Maintain a powered pole pruner in accordance with **operator's handbook** using appropriate tools 2.3 Maintain cutting system in accordance with operator's handbook using appropriate tools 2.4 Reassemble the powered pole pruner and cutting system to functional/operational standard 2.5 Carry out pre-start checks and setting of the machine for use 2.6 Demonstrate safe starting of the powered pole pruner 2.7 Select **relevant pruning methods** 2.8 Reduce and remove branches using appropriate cuts 2.9 Process arising 2.10 Clean and tidy working area.

Range
Safety features • Spark plug • Air filter • Fuel and oil filter • Cooling system • Exhaust system • Clutch/drive system • Sprocket • Starter mechanism/recoil system • Greasing/lubrication (as appropriate) Include chain and guide bar Identify damaged, missing or worn components and report any defects appropriately **Operator's handbook** INDG317; Operators handbook **Relevant pruning methods** Appropriate to the specification, branch size and condition

Learning outcome
The learner will: 3. Know relevant health and safety legislation and industry good practice
Assessment criteria
The learner can: 3.1 Outline the current **health and safety legislation and industry good practice** 3.2 Outline the emergency planning and procedures relevant to the working area 3.3 Identify appropriate **personal protective equipment** 3.4 Describe how **environmental damage can be minimised** 3.5 Describe **methods for disposing waste**

Range
Health and safety legislation and industry good practice 2 points from each: Health and Safety at Work Act 1974 Provision and Use of Work Equipment Regulations 1998 (PUWER 98). 1 reason: Arboriculture Forestry Advisory Group (AFAG) AFAG802 – paragraph 16: emergency procedures **Personal protective equipment** CE marking referred to Including: Safety boots Gloves Head, ear and eye protection Non snag outer clothing Personal First Aid kit Harness **Environmental damage can be minimised** 2 examples. **Methods for disposing waste** State 3 methods.

Learning outcome
The learner will: 4. Know how to use a powered pole pruner
Assessment criteria
The learner can: 4.1 Explain why safety features are fitted to a powered pole pruner and how they function 4.2 Explain the function and maintenance requirements of individual components • Spark plug • Air filter • Chainbrake • Cooling system • Exhaust system • Clutch/drive system • Sprocket • Starter mechanism/recoil system • Greasing/lubrication • Guide bar • Chain 4.3 Describe the **problems** encountered when chain and guide bar are worn, damaged or poorly maintained 4.4 Explain how to select the correct **filing information** for chain and why this is necessary 4.5 Identify different chain types and their application 4.6 Describe how to **identify trees** to be pruned 4.7 Describe appropriate pruning methods and equipment used 4.8 Describe tension and compression in a branch 4.9 Explain ways to remove a pruner trapped in a cut 4.10 Describe methods of **reducing and pruning** heavy and long branches 4.11 State how condition of trees and time of year affect the **approach to pruning**

Range
Problems 3 chain 3 guide bar **Filing information** 2 filing angles 2 depth gauge setting 1 cutter length **Chain types and their application** Chisel

Semi chisel

Identify trees
3 ways

Remove a pruner trapped in a cut
2 ways

Reducing and pruning
2 methods

Approach to pruning
1 reason for condition and time of year

Unit 424 Use a powered pole pruner

Supporting information

Guidance

Simulation will not be acceptable where the unit is included in qualifications which verify competent performance. Please refer to Lantra's Assessment Strategy for further guidance.

Unit 425 Identify and report the presence of pests, diseases and disorders

UAN:	**K/502/1511**
Level:	Level 2
Credit value:	3
GLH:	23
Relationship to NOS:	This unit is linked to Horticulture NOS
Endorsement by a sector or regulatory body:	This unit is endorsed by Lantra, the Sector Skills Council for Land and Environment

Learning outcome
The learner will: 1. Identify and report the presence of pests, diseases and disorders
Assessment criteria
The learner can: 1.1 Monitor the crop(s) in accordance with production requirements 1.2 Correctly identify the presence of pests, diseases and disorders 1.3 Correctly identify the presence of any biological controls in use and beneficial insects 1.4 Establish the extent of the pest population, disease and any disorders 1.5 Promptly report the presence to the appropriate person

Learning outcome
The learner will: 2 Be able to work safely and minimise environmental damage
Assessment criteria
The learner can: 2.1 Work in a way which maintains health and safety and is consistent with relevant legislation, codes of practice and any additional requirements 2.2 Carry out work in a manner which minimises environmental damage

Learning outcome
The learner will: 3 Know how to identify and report the presence of pests, diseases and disorders
Assessment criteria
The learner can: 3.1 Describe reasons for monitoring the crop 3.2 Describe when to carry out crop monitoring 3.3 Describe common types of pests, diseases and disorders and the problems caused 3.4 Describe biological controls and beneficial insects that can be used 3.5 Identify to whom you should report the presence and extent of pests, diseases, disorders and biological control/beneficial insects

Learning outcome
The learner will: 4 Know relevant health and safety legislation and environmental good practice
Assessment criteria
The learner can: 4.1 Outline the current health and safety legislation, codes of practice and any additional requirements 4.2 Describe how environmental damage can be minimised 4.3 Describe the correct methods for disposing of waste. 4.4 Describe the health and safety risks in monitoring pests, diseases and disorders

Unit 425 Identify and report the presence of pests, diseases and disorders

Supporting information

Guidance

Simulation will not be acceptable where the unit is included in qualifications which verify competent performance. Please refer to Lantra's Assessment Strategy for further guidance.

Unit 426 Construct, maintain and repair simple bridges

UAN:	**K/502/3226**
Level:	Level 2
Credit value:	3
GLH:	23
Relationship to NOS:	This unit is linked to Environmental Conservation NOS.
Endorsement by a sector or regulatory body:	This unit is endorsed by Lantra, the Sector Skills Council for Land and Environment

Learning outcome
The learner will: 1. Be able to construct, maintain and repair simple bridge
Assessment criteria
The learner can: 1.1 Prepare the site appropriately, and in a way which minimises the effect on the surrounding environment to include: • setting out and location • materials and resources • timing and timescales • working methods • suitability for expected use and local tradition 1.2 Make sure that the bridge is secure, and suitable for its intended use 1.3 Construct, maintain or repair the bridge to specification, and finish it in a way which fits in with the surrounding environment 1.4 Take the appropriate action without delay when problems occur during your work including: • accidental damage • difficulties in meeting the specification • disturbance to wildlife or environment 1.5 Inform the appropriate person of any potential improvements to the work specification 1.6 Make the site as good as possible when work is finished.

Learning outcome
The learner will: 2 Be able to work safely and minimise environmental damage
Assessment criteria
The learner can: 2.1 Work in a way which maintains health and safety and is consistent with relevant legislation, codes of practice and any additional requirements 2.2 Carry out work in a manner which minimises environmental damage 2.3 Dispose of waste safely and correctly.

Learning outcome
The learner will: 3 Be able to select, use and maintain relevant equipment
Assessment criteria
The learner can: 3.1 Select and use appropriate equipment for this area of work 3.2 Prepare, maintain and store equipment in a safe and effective working condition.

Learning outcome
The learner will: 4 Know how to construct, maintain and repair simple bridges
Assessment criteria
The learner can: 4.1 Describe how to identify hazards and assess risks 4.2 Describe how to interpret risk assessments 4.3 Describe suitable methods for preparing the site 4.4 State the purpose of the bridge 4.5 Outline how to interpret and use relevant specifications covering: • setting out and location • materials and resources • timing and timescales • working methods • suitability for expected use and local tradition 4.6 Outline the context within which the structure is set, and how this relates to the specification 4.7 Describe methods for constructing, maintaining and repairing simple bridges 4.8 Describe problems which may occur during operations and how these should be dealt with

- accidental damage
- difficulties in meeting the specification
- disturbance to wildlife or environment

4.9 Outline the required condition of the site on completion of operations

Learning outcome
The learner will: 5 Distinguish between different types of access structure
Assessment criteria
The learner can: 5.1 Identify and describe the defining characteristics of simple bridges compared to: • fords • steps • (iii) signs/way markers

Learning outcome
The learner will: 6 Know relevant health and safety legislation and environmental good practice
Assessment criteria
The learner can: 6.1 Outline the current health and safety legislation, codes of practice and any additional requirements 6.2 Describe how environmental damage can be minimised 6.3 Describe the correct methods for disposing of waste

Learning outcome
The learner will: 7 Know the types of equipment required and how to maintain them
Assessment criteria
The learner can: 7.1 Describe the equipment which will be required for the activity 7.2 Describe the methods of maintaining the range of equipment

Unit 426 Construct, maintain and repair simple bridges

Supporting information

Guidance

Simulation will not be acceptable where the unit is included in qualifications which verify competent performance. Please refer to Lantra's Assessment Strategy for further guidance.

Unit 427 Carry out maintenance of chainsaw and cutting system

UAN:	**K/504/0320**
Level:	Level 2
Credit value:	2
GLH:	15
Relationship to NOS:	This unit is linked to the Trees and Timber NOS
Endorsement by a sector or regulatory body:	This unit is endorsed by Lantra, the Sector Skills Council for Land and Environment
Aim:	The aim and purpose of this unit is to provide the learner with the knowledge and skills to carry out maintenance of chainsaw and cutting system

Learning outcome
The learner will: 1. Be able to work safely
Assessment criteria
The learner can: 1.1 Identify the **hazards and risks associated** with the working area and the proposed work 1.2 Use appropriate tools, equipment and personal protective equipment (PPE) 1.3 Work in a way which maintains health and safety and is consistent with relevant legislation and industry good practice 1.4 Carry out work to **minimise environmental damage** 1.5 Dispose of waste safely in line with legislation.

Range
Hazards and risks associated 3 hazards and the associated risks with the working area. 3 hazards and the associated risks with the proposed work. INDG317; AFAG301 **Minimise environmental damage** Check the working area for potential (negative) environmental damage

Report finding(s) as appropriate Carry out any required control measure(s).

Learning outcome
The learner will: 2. Be able to carry out maintenance of chainsaw and cutting system
Assessment criteria
The learner can: 2.1 Check all **safety features on the chainsaw** are present and not damaged 2.2 Select appropriate maintenance tools for the power unit and cutting systems in accordance with operator's handbook 2.3 Maintain power unit in accordance with operator's handbook using appropriate tools 2.4 Maintain **cutting system** in accordance with operator's handbook using appropriate tools 2.5 Reassemble chainsaw and cutting system to functional/operational standard 2.6 Clean and tidy working area.

Range
Safety features on the chainsaw INDG317; AFAG301 • Spark plug • Air filter • Chainbrake • Fuel and oil filter • Cooling system • Exhaust system • Clutch/drive system • Sprocket • Starter mechanism/recoil system • Greasing/lubrication (as appropriate) **Cutting system** Include chain and guide bar Identify damaged, missing or worn components and report any defects appropriately.

Learning outcome
The learner will: 3 Be able to carry out operational chainsaw checks
Assessment criteria

The learner can: 3.1 Carry out **pre-start checks** and setting of the machine for use 3.2 Demonstrate safe starting of the chainsaw 3.3 Demonstrate post operational checks.
Range
Pre-start checks INDG317; Operator's handbook.

Learning outcome
The learner will: 4 Know relevant health and safety legislation and industry good practice
Assessment criteria
The learner can: 4.1 Outline **key health and safety legislation and industry good practice** 4.2 Outline the **emergency planning and procedures** relevant to the working area 4.3 Describe how **environmental damage** can be caused and minimised 4.4 Describe the correct **methods for disposing waste** 4.5 Identify appropriate **personal protective equipment**.

Range
Key health and safety legislation and industry good practice Health and Safety at Work Act 1974; Provision and Use of Work Equipment Regulations 1998 (PUWER 98); Arboriculture Forestry Advisory Group (AFAG) **Emergency planning and procedures** AFAG802 – paragraph 16: 5 emergency procedures **Environmental damage** 1 cause; 1 prevention **Methods for disposing waste** 2 methods **Personal protective equipment** INDG317; AFAG301 CE marking referred to.

Learning outcome
The learner will: 5 Know how to carry out maintenance of chainsaw and cutting system
Assessment criteria
The learner can: 5.1 Explain the **function(s) of all safety features** 5.2 Explain the function and maintenance requirements of individual components • spark plug • air filter • chainbrake • cooling system • exhaust system • clutch/drive system • sprocket • starter mechanism/recoil system • greasing/lubrication • guide bar • chain 5.3 Describe the **problems encountered** when chain and guidance bar are worn, damaged or poorly maintained 5.4 Explain how to select the correct **filing information** for chain and why this is necessary 5.5 Identify different **chain types and their application** 5.6 Explain **why it is important to maintain chainsaws** to manufacturer's recommendations 5.7 State **steps to be taken** when a chainsaw is not repairable, faulty or non-operational.

Range
Function(s) of all safety features INDG317; AFAG301 **Problems encountered** 3 chain, 3 guide bar **Filing information** 2 filing angles, 2 depth gauge settings, 1 cutter length

Chain types and their application
Chisel
Semi chisel

Why it is important to maintain chainsaws
1 reason

Steps to be taken
2 responses

Unit 427 Carry out maintenance of chainsaw and cutting system

Supporting information

Guidance

Simulation will not be acceptable where the unit is included in qualifications which verify competent performance. Please refer to Lantra's Assessment Strategy for further guidance.

Unit 428 Remove branches and breakdown crowns using a chainsaw

UAN:	**K/504/0656**
Level:	Level 2
Credit value:	2
GLH:	15
Relationship to NOS:	This unit is linked to the Trees and Timber NOS
Endorsement by a sector or regulatory body:	This unit is endorsed by Lantra, the Sector Skills Council for Land and Environment
Aim:	The aim and purpose of this unit is to provide the learner with the knowledge and skills to use a chainsaw to remove branches from felled trees

Learning outcome
The learner will: 1. Be able to work safely
Assessment criteria
The learner can: 1.1 Identify the **hazards and risks** associated with the working area and the proposed work 1.2 Use appropriate tools, equipment and personal protective equipment (PPE) 1.3 Work in a way which maintains health and safety and is consistent with relevant **legislation and industry good practice** 1.4 Carry out work to minimise environmental damage 1.5 Dispose of waste safely in line with legislation.

Range
Hazards and risks 3 hazards and the associated risks with the working area. 1 hazard and the associated risks with the proposed work. **Legislation and industry good practice** INDG317; AFAG301

Learning outcome
The learner will: 2. Be able to remove branches and breakdown crowns using a chainsaw
Assessment criteria
The learner can: 2.1 Carry out **pre-start checks** and setting of the machine for use 2.2 Demonstrate safe starting of the chainsaw 2.3 **Remove branches** from felled trees using a recognised method 2.4 Turn tree and remove under branches using appropriate **aid tools and method(s)** where appropriate 2.5 Clean and tidy working area

Range
Pre-start checks Chain brake test Chain oil test On/off switch Oil and fuel mix Chain creep/tension **Safe starting of the chainsaw** NDG317; Operator's handbook INDG317; AFAG301 **Remove branches** Appropriate to tree branch pattern, size, form and condition and to leave stem as appropriate to specification Include tension and compression As per unit requirements **Aid tools and method(s)** All Hand-held winches Using communication systems **Clean and tidy** As per site specification.

Learning outcome
The learner will: 3. Know relevant health and safety legislation and industry good practice
Assessment criteria
The learner can: 3.1 Outline the **key health and safety legislation and industry good practice** 3.2 Outline the **emergency planning procedures** relevant to the working area 3.3 Describe **how to use and maintain** tools, equipment and personal protective equipment 3.4 Describe how **environmental damage can be minimised** 3.5 Describe the **correct methods for disposing waste**

Range
Key health and safety legislation and industry good practice 2 points Health and Safety at Work Act 1974; Provision and Use of Work Equipment Regulations 1998 (PUWER 98); 1 reason Arboriculture Forestry Advisory Group (AFAG) **Emergency planning procedures** AFAG802 – paragraph 16: 5 emergency procedures **How to use and maintain** 2 reasons **Environmental damage can be minimised** 1 cause; 1 prevention **Methods for disposing waste** 2 methods.

Learning outcome

The learner will:

4. Know how to remove branches and breakdown crowns using a chainsaw

Assessment criteria

The learner can:

4.1 Describe how the **method of removing branches** will vary with tree species, form and condition

4.2 Describe how to identify tension and compression in branches

4.3 Outline **the implications on choice of severing method**

4.4 Describe **how to deal with small diameter timber under severe tension/compression**

4.5 State **how and when to use winches** to assist with the snedding of trees

4.6 Describe process for removing branches above shoulder height

4.7 Explain the **advantages of leaving a clean stem** after de-branching

4.8 State **how and when to deal with trapped branches**

4.9 State **how to deal with brash and branches after snedding**

Range

5.1 method of removing branches

Methods appropriate to conifers and broadleaves

2 methods

2 differences for each

5.3 implications on choice of severing method

1 implications

5.4 how to deal with small diameter timber under severe tension/compression

1 method

how and when to use winches

2 how

2 when

5.7 advantages of leaving a clean stem

3 advantages

5.8 how and when to deal with trapped branches

2 how

2 when

5.9 how to deal with brash and branches after snedding

State 2

Unit 428 Remove branches and breakdown crowns using a chainsaw

Supporting information

Guidance

Trees may be conifer or broad leaved.

Trees between 200mm and 380mm: Minimum 1, maximum 2.

All branches to be removed.

Sections of stem (length/diameter in accordance with specification): Minimum 2, maximum 6

Guide bar as appropriate to timber diameter

Trees over 560mm: Minimum 1, maximum 2

Open spreading crowns with branches and/or stem under tension and compression

Branches/limbs removal: Minimum 20, maximum 30

Sections of stem (length/diameter in accordance with specification): Minimum 2, maximum 6

A winch is to be used to restrain or turn a stem

Guide bar as appropriate to timber diameter

Refer to Lantra SSCs Assessment Strategy

Unit 429 Cut, process and extract coppice

UAN:	**K/504/3671**
Level:	Level 2
Credit value:	4
GLH:	30
Relationship to NOS:	This unit is linked to the Trees and Timber NOS
Endorsement by a sector or regulatory body:	This unit is endorsed by Lantra, the Sector Skills Council for Land and Environment
Aim:	The unit provides the learner with the knowledge and skills to cut, process, and extract coppice

Learning outcome
The learner will: 1. Be able to work safely
Assessment criteria
The learner can: 1.1 Identify the **hazards and risks associated** with the working area and the proposed work 1.2 Use appropriate tools, equipment and personal protective equipment (PPE) safely 1.3 Carry out work in accordance with relevant legislation, industry good practice and maintain health and safety 1.4 Carry out work to minimise environmental damage.

Range
Hazards and risks associated Carry out a site specific risk assessment

Learning outcome
The learner will: 2. Be able to cut, process and extract coppice
Assessment criteria
The learner can: 2.1 Produce a **work schedule** 2.2 Identify the species, mix, estimated age of coppice, and volume of coupe 2.3 Cut coppice stool using current good practice and to promote healthy re-growth 2.4 Process the coppice material minimising wastage 2.5 Manage standard trees 2.6 Sort/grade and bundle cut coppice for a variety of uses 2.7 Extract cut coppice using methods appropriate to the site and dimensions of material 2.8 **Restock the understory** using different methods to maintain coppice at appropriate density.

Range
Work schedule With SMART objective(s) **Restock the understory** Layering Natural regeneration

Learning outcome
The learner will: 3. Know relevant health and safety legislation and industry good practice
Assessment criteria
The learner can: 3.1 Outline the current health and safety legislation, industry good practice and any additional requirements 3.2 Describe how to use and maintain tools, equipment and personal protective equipment (PPE) 3.3 Describe how environmental damage can be minimized.

Learning outcome
The learner will: 4. Know how to cut, process and extract coppice
Assessment criteria
The learner can: 4.1 Identify **commonly coppiced species,** in summer and winter 4.2 Explain the **reasons for coppicing** 4.3 Describe **good practice** with regard to coppicing a stool 4.4 Describe how to protect stools from damage by browsing animals 4.5 Describe **methods of re-stocking** and importance of density 4.6 Describe different **methods of extraction** and their suitability to different applications 4.7 Outline habitats directives governing woodland operations 4.8 Describe the management of standard trees.

Range
Commonly coppiced species 5 species Factors that affect coppice regeneration **Reasons for coppicing** Positive benefits of coppicing for biodiversity **Good practice** maximise the use of cut coppice and give useable products **Methods of re-stocking** Three methods **Methods of extraction** Three methods

Unit 429 Cut, process and extract coppice

Supporting information

Guidance

Simulation will not be acceptable where the unit is included in qualifications which verify competent performance. Please refer to Lantra's Assessment Strategy for further guidance.

Unit 430 Choker timber for extraction

UAN:	**K/504/3685**
Level:	Level 2
Credit value:	2
GLH:	15
Relationship to NOS:	This unit is linked to the Trees and Timber NOS
Endorsement by a sector or regulatory body:	This unit is endorsed by Lantra, the Sector Skills Council for Land and Environment
Aim:	The aim of this unit is to provide the learner with the knowledge and skills required to choker timber to a cable crane system and communicate with the winch operator

Learning outcome
The learner will: 1. Be able to work safely
Assessment criteria
The learner can: 1.1 Identify the **hazards and risks** associated with the working area and the proposed work 1.2 Use appropriate tools, equipment and Personal Protective Equipment 1.3 Carry out work in accordance with **relevant legislation, industry good practice and maintains health and safety** 1.4 Carry out work to minimise environmental damage

Range
Hazards and risks Carry out a site risk assessment Identify route Assess the Operational and environmental requirements for the site Plan safe and efficient felling **Relevant legislation, industry good practice and maintains health and safety** Store machinery, fuels and equipment securely on site.

Learning outcome
The learner will: 2. Be able to prepare to choker timber
Assessment criteria
The learner can: 2.1 Agree the **signalling system with the winch operator** 2.2 Ensure the chokers are of adequate capacity and length for the timber to be chokered.

Range
Signalling system with the winch operator To include operational and environmental requirements for the site. Safe and efficient working Identifying exclusion zones/risks and safety distances

Learning outcome
The learner will: 3. Be able to choker timber to cable
Assessment criteria
The learner can: 3.1 Carry out **on-going visual checks** on winch cable and terminal components and ancillary equipment 3.2 Identify the timber to choker, position cable and choker as part **timber operations** 3.3 Select **anchor points** adequate for off-set winching 3.4 Select and choker timber for extraction 3.5 Use the agreed signaling.

Range
On-going visual checks Including hooks, shackles, sliders, pulleys, snatch blocks and chokering equipment **Timber operations** To cover 3 of the following: clear felling, thinning, wind blown clearance **Anchor points** For double rigging or offset (diverted) pulling systems, ensure chokerperson is safeguarded in case of anchor point failure

Timber for extraction

Choker timber to avoid:

- damage to product,
- instability of winching system,
- loss of load,
- damage to standing trees
- wider environmental damage, including roads and tracks

Avoid operating in the bight of any ropes or cables

Un-choker if the load gets stuck.

Learning outcome
The learner will: 4. Know how to choker timber to cable
Assessment criteria
The learner can: 4.1 Describe how to recognise type of timber and species and select product categories to meet specification 4.2 Describe the **methods of chokering poles** butt first and tip first 4.3 Describe types of chokers and chokering attachments 4.4 Describe **potential problems** that can occur during the operation how to deal with these 4.5 Explain the methods and importance of the operator carrying out routine checks and maintaining equipment for use 4.6 Explain how to choker stacks of produce.

Range
Methods of chokering poles Including the optimum attachment position for the chokers on the timber **Potential problems** Obstacles that may be encountered when the winch is operated. Effect of poorly chokered or awkward shaped loads on winch extraction. Outline the additional points to consider when laying out the cable and chokering multiple stems.

Learning outcome
The learner will: 5. Know relevant health and safety legislation and industry good practice

Assessment criteria
The learner can: 5.1 Outline the current **health and safety legislation and industry good practice** 5.2 Describe the importance of **good teamwork and communication** within the working environment 5.3 Explain the **records** required for management and legislative purposes.

Range
Health and safety legislation and industry good practice Outline the principles of safe manual handling techniques for tasks carried out Outline the hazards and risks posed by working on steep slopes when laying out cable and chokering timber Describe the possible pollution and environmental damage that could occur and how to respond appropriately **Good teamwork and communication** Describe the signals and alternative methods of signalling used including use of radios **Records** The importance of maintaining them.

Unit 430 Choker timber for extraction

Supporting information

Guidance

Simulation will not be acceptable where the unit is included in qualifications which verify competent performance. Please refer to Lantra's Assessment Strategy for further guidance.

Unit 431 Work with and consult the local community

UAN:	**L/502/3168**
Level:	Level 2
Credit value:	3
GLH:	23
Relationship to NOS:	This unit is linked to the Environmental Conservation NOS.
Endorsement by a sector or regulatory body:	This unit is endorsed by Lantra, the Sector Skills Council for Land and Environment

Learning outcome
The learner will: 1. Work with and consult the local community
Assessment criteria
The learner can: 1.1 Identify opportunities for formal and informal consultation and co-operation with the local community, seeking specialist advice where appropriate 1.2 Establish and maintain contacts with relevant individuals and organised groups within the local community 1.3 Engage with individuals and groups within the local community to develop understanding and awareness as part of consultation 1.4 Use appropriate communication methods to seek the opinions of individuals and groups within the local community.

Learning outcome
The learner will: 2 Understand the importance of working with and consulting the local community
Assessment criteria
The learner can: 1.5 Describe the types of opportunities available for co-operation and consultation with the local community 1.6 Describe the ways in which contact with the local community can be established 1.7 Describe the reasons for and importance of consultation with the local community in gathering feedback 1.8 Describe the likely impact of the organisation's work on the local community 1.9 Outline why it is important that those you are consulting with understand the issues which they are being consulted on 1.10 Describe the methods of gauging community opinion and the importance of providing feedback.

Unit 431 Work with and consult the local community

Supporting information

Guidance

Simulation will not be acceptable where this unit is included in qualifications which verify competent performance. Please refer to Lantra's Assessment Strategy for further guidance.

Unit 432 Maintain and repair site furniture and structures

UAN:	**L/502/3218**
Level:	Level 2
Credit value:	3
GLH:	23
Relationship to NOS:	This unit is linked to Trees and Timber NOS
Endorsement by a sector or regulatory body:	This unit is endorsed by Lantra, the Sector Skills Council for Land and Environment.

Learning outcome
The learner will: 1. Maintain and repair site furniture and structures
Assessment criteria
The learner can: 1.1 Prepare the site appropriately, and in a way which minimises the effect on the surrounding environment 1.2 Maintain or repair the structure to specification, and finish it in a way which fits in with the surrounding environment including • materials and resources • timing and timescales • working methods • suitability of expected use and local tradition 1.3 Inform the appropriate person of any potential improvements to the work specification 1.4 Leave the site in a suitable condition when work is finished.

Learning outcome
The learner will: 2. Be able to work safely and minimise environmental damage
Assessment criteria
The learner can: 2.1 Work in a way which maintains health and safety and is consistent with relevant legislation, codes of practice and any additional requirements

2.2	Carry out work in a manner which minimises environmental damage
2.3	Dispose of waste safely and correctly.

Learning outcome
The learner will: 3. Be able to select, use and maintain relevant equipment
Assessment criteria
The learner can: 3.1 Select appropriate equipment for this area of work 3.2 Use equipment according to relevant legislation and manufacturer's instructions 3.3 Prepare, maintain and store equipment in a safe and effective working condition.

Learning outcome
The learner will: 4. Know how to maintain and/or repair site furniture and structures
Assessment criteria
The learner can: 4.1 State how to recognise the environmental value of sites 4.2 Suitable methods for preparing the site 4.3 Describe the purpose and context of the structure and how this relates to the specification and operations 4.4 Describe the methods for maintaining and repairing structures 4.5 State how to interpret and use relevant specifications 4.6 Describe the problems which may occur during operations and how these should be dealt with • accidental damage • difficulties in meeting the specification • disturbance to wildlife or environment 4.7 State the importance of leaving the site in a suitable condition on completion of operations.

Learning outcome
The learner will: 5. Know relevant health and safety legislation and environmental good practice
Assessment criteria
The learner can: 5.1 Outline the current health and safety legislation, codes of practice and any additional requirements

5.2 Describe how environmental damage can be minimised 5.3 Describe the correct methods for disposing of waste.

Learning outcome
The learner will: 6. Know the types of equipment required and how to maintain them
Assessment criteria
The learner can: 6.1 Describe the equipment which will be required for the activity 6.2 Describe the methods of maintaining the range of equipment.

Unit 432 Maintain and repair site furniture and structures

Supporting information

Guidance

Simulation will not be acceptable where the unit is included in qualifications which verify competent performance. Please refer to Lantra's Assessment Strategy for further guidance.

Unit 433 Carry out vegetation management in proximity of underground utilities

UAN:	**L/504/3677**
Level:	Level 2
Credit value:	5
GLH:	38
Relationship to NOS:	This unit is linked to Trees and Timber NOS
Endorsement by a sector or regulatory body:	This unit is endorsed by Lantra, the Sector Skills Council for Land and Environment
Aim:	The aim and purpose of this unit is to provide the learner with the knowledge and skills to carry out vegetation management in proximity to underground utilities. Utilities include electricity, railways, waterways and highways.

Learning outcome
The learner will: 1. Be able to work safely
Assessment criteria
The learner can: 1.1 Identify the hazards and risks associated with the working area and the proposed work 1.2 Use appropriate tools, equipment and personal protective equipment (PPE) 1.3 Carry out work in accordance with **relevant legislation, industry good practice and promotes health and safety** 1.4 Carry out work to minimise environmental damage 1.5 Dispose of waste in line with legislation.

Range
Relevant legislation, industry good practice and promotes health and safety • ensure that required signage and controls are in place • ensure any procedures for lone working are in place

- clearly identify where specialised workers engaged by the utility must be used.

Learning outcome
The learner will: 2. Be able to carry out vegetation management
Assessment criteria
The learner can: 2.1 Operate specialist equipment in accordance with manufacturers and utility's specified parameters 2.2 Prune roots to reduce their impact on utilities in accordance with specifications 2.3 Reinstate tranches in accordance with specifications 2.4 Maintain records to meet utility and legislative requirements.

Learning outcome
The learner will: 3. Know relevant health and safety legislation and industry good practice
Assessment criteria
The learner can: 3.1 Outline the current health and safety legislation and industry good practice 3.2 Describe how to use and maintain tools, equipment and personal protective equipment 3.3 Describe how environmental damage can be minimised 3.4 Describe the correct methods for disposing of waste 3.5 Outline the emergency planning procedures relevant to the work area.

Learning outcome
The learner will: 4. Know how to carry out vegetation management
Assessment criteria
The learner can: 4.1 State the potential hazards and risks associated with working in close proximity to the utility in relation to structures, safety distances and use of equipment 4.2 Explain how species, condition of tree, their proximity to the utility and the time of year can affect the work

4.3	Describe the use of safety equipment specific to the utility in question and tools for operation
4.4	Outline the basic principles of tree biology and the implications of root reduction to different tree species
4.5	State the importance of maximum root retention and careful back filling.

Unit 433 Carry out vegetation management in proximity of underground utilities

Supporting information

Guidance

Simulation will not be acceptable where the unit is included in qualifications which verify competent performance. Please refer to Lantra's Assessment Strategy for further guidance.

Unit 434 Prepare and operate machinery to process trees

UAN:	**L/504/3680**
Level:	Level 2
Credit value:	5
GLH:	38
Relationship to NOS:	This unit is linked to Trees and Timber NOS
Endorsement by a sector or regulatory body:	This unit is endorsed by Lantra, the Sector Skills Council for Land and Environment
Aim:	The aim of this unit is to provide the learner with the knowledge and skills required to prepare, manoeuvre and operate a machine to process trees in a range of woodland and forestry situations.

Learning outcome
The learner will: 1. Be able to work safely
Assessment criteria
The learner can: 1.1 Identify the **hazards and risks** associated with the working area and the proposed work 1.2 Use appropriate tools, equipment and Personal Protective Equipment 1.3 Carry out work specification in accordance with relevant legislation, industry good practice and maintain health and safety 1.4 Carry out work to **minimise environmental damage**.

Range
Hazards and risks Carry out a site risk assessment Identify route Assess the Operational and environmental requirements for the site **Minimise environmental damage** Store machinery, fuels and equipment securely on site.

Learning outcome
The learner will: 2. Be able to select and prepare machinery
Assessment criteria
The learner can: 2.1 Carry out **pre and post-start checks** to test all operating functions of the equipment.

Range
Pre and post-start checks including pre start visual checks to base machine safety devices, prior to harvesting timber, including fire control equipment

Learning outcome
The learner will: 3. Be able to drive and manoeuvre machinery
Assessment criteria
The learner can: 3.1 Drive the machine on site and in a safe and effective way 3.2 Manoeuvre the machine on site and in a safe and effective way 3.3 **Maintain brash**.

Range
Maintain brash With small trees, tops etc. to reduce ground damage and aid flotation Create brash for bailing

Learning outcome
The learner will: 4. Be able to process felled trees
Assessment criteria
The learner can: 4.1 **Process the felled trees** in accordance with the job specification 4.2 **Segregate logs** to enable ease of extraction

4.3	Use machinery in accordance with **relevant legislation and manufacturer's instructions**

Range
Process the felled trees Position machine correctly, safely and effectively Ensure that any damage to the remaining standing trees or to the environment is minimal and within specified limits De-limb trees according to specification Crosscut trees according to specification Deal with shattered butts, double, multiple, rotten/dead and misshapen stems as required Ensuring that any brash is placed clear of timber **Segregate logs** Stack logs to enable ease of extraction Maintain machinery in accordance with relevant legislation and manufacturer's instructions **Relevant legislation and manufacturer's instructions** Store machinery securely on site.

Learning outcome
The learner will: 5. Know how to prepare machinery
Assessment criteria
The learner can: 5.1 State the **safety requirements, routine and functional checks** required for machine and operator protection 5.2 Describe **safe driving techniques** that should be used on site 5.3 Explain the implications of terrain, ground conditions, season, weather and tree condition on planning access routes and driving the machine.

Range
Safety requirements, routine and functional checks

Such as OPS, ROPS and FOPS and other safety devices

The need for carrying out routine operator checks and basic maintenance

Identify the function of all operating controls for drive unit and processing equipment

Planning and setting up re-fuelling areas

Safe driving techniques

Reduce damage to the ground, any remaining standing trees or the wider environment to within specified limits.

Learning outcome
The learner will: 6. Know how to process trees
Assessment criteria
The learner can: 6.1 Describe how to select size and species to meet the job specification 6.2 Describe how to **process trees** 6.3 Describe how to **measure log length** to ensure it meets specification.

Range
Process trees The capabilities and limitations of the machine in relation to processing Implication of processing double, shattered, diseased, rotten, dead or other malformed trees How to decide which trees should be prepared or processed manually How to de-limb deformed trees Deal with trees with oversized/inaccessible butts **Measure log length** Procedure for setting log length, tolerances and minimum top diameters as appropriate to machine Regular checks on specification of processed timber during operation and recognise malfunctions.

Learning outcome

The learner will: 7. Know relevant health and safety legislation and industry good practice
Assessment criteria
The learner can: 7.1 Outline current **health and safety legislation, codes of practice and any additional requirements** 7.2 Explain why it is important to maintain good communication and **team work within the working environment** 7.3 Describe the types of records that may be required for management and **legislative requirements**.

Range
Health and safety legislation, codes of practice and any additional requirements How environmental damage can be minimised Discuss current guidelines on machinery operation, risk zones and safety clearances from overhead electricity conductors and what to do in the event of contact with power lines Discuss driving techniques that reduce damage to the environment Explain how to prepare for crossing water courses and the use of ramps Describe the implications of working at height in relation to operator checks and maintenance Describe causes of, and how to prevent potential pollution and environmental damage when preparing and using loader - fed processor Describe how to minimise any pollution incident including the pollution control equipment that should be available on site and to whom any incidents should be reported **Team work within the working environment** Chainsaw operators Hauliers Colleagues **Legislative requirements** LOLER PUWER and the importance of accurate record keeping.

Unit 434 Prepare and operate machinery to process trees

Supporting information

Guidance

Simulation will not be acceptable where the unit is included in qualifications which verify competent performance. Please refer to Lantra's Assessment Strategy for further guidance.

Unit 435 Identify tree species and their properties

UAN:	**L/504/3694**
Level:	Level 2
Credit value:	5
GLH:	38
Relationship to NOS:	This unit is linked to Trees and Timber NOS
Endorsement by a sector or regulatory body:	This unit is endorsed by Lantra, the Sector Skills Council for Land and Environment.
Aim:	The aim of this unit is to provide the learner with the knowledge and skills to identify trees species. It also covers the identification of plants that are associated with trees.

Learning outcome
The learner will: 1. Be able to identify tree species and their properties
Assessment criteria
The learner can: 1.1 Identify **tree species** that are grown in the UK in all seasons 1.2 Identify **tree genera** from samples 1.3 Identify **plant species** associated with growing trees.

Range
Tree species Identify common trees grown in Great Britain How many should be identified: 30 species Botanical names and common names – 20 broadleaf, 10 conifer Use sources of information to identify species **Tree genera** Identify different tree genera from samples Use tree characteristics to aid identification in relation to • Leaves – size and shape • Buds • Bark and stems • Growth habit

- Flowers,
- Seeds and fruit

Plant species

10 plant species.

Learning outcome
The learner will: 2. Understand the principals of tree identification
Assessment criteria
The learner can: 2.1 Describe the principles of **botanical classification and nomenclature** 2.2 State how plant characteristics can aid identification 2.3 Describe the different stages in plant and tree life cycles.

Range
Botanical classification and nomenclature • Leaves – size and shape • Buds • Bark and stems • Growth habit • Flowers, • Seeds and fruit • Age classes.

Learning outcome
The learner will: 3. Understand the planting of trees
Assessment criteria
The learner can: 3.1 Describe the preferred growing conditions of different tree species 3.2 State the landscape use of different **tree species**.

Range
Tree species 10 species.

Learning outcome
The learner will: 4. Understand the attributes of trees
Assessment criteria
The learner can:

4.1	State the timber use of different tree species
4.2	State the effects of the properties of different woods on treework and site selection.

Unit 435 Identify tree species and their properties

Supporting information

Guidance

Simulation will not be acceptable where the unit is included in qualifications which verify competent performance. Please refer to Lantra's Assessment Strategy for further guidance.

Unit 436 Communicate with the public and others

UAN:	**L/600/2699**
Level:	Level 2
Credit value:	3
GLH:	23
Relationship to NOS:	This unit is linked to Environmental Conservation NOS
Endorsement by a sector or regulatory body:	This unit is endorsed by Lantra, the Sector Skills Council for Land and Environment

Learning outcome
The learner will: 1. Be able to communicate with the public and others
Assessment criteria
The learner can: 1.1 Communicate with members of the public and others effectively and in a way which promotes the organisation 1.2 Communicate information which is suitable to the needs of members of the public and others 1.3 Respond to requests for information clearly and accurately and refer queries appropriately 1.4 Encourage members of the public and others to ask questions or seek explanation 1.5 Suggest suitable sources of information to members of the public and others 1.6 Communicate appropriate health and safety information.

Learning outcome
The learner will: 2. Be able to work safely and minimise environmental damage
Assessment criteria
The learner can: 2.1 Work in a way which maintains health and safety and is consistent with current legislation, codes of practice and any additional requirements.

Learning outcome
The learner will: 3. Know how to communicate with the public and others
Assessment criteria
The learner can: 3.1 Explain why effective methods of communication are needed 3.2 Describe how to encourage queries and comments from members of the public and others 3.3 List different sources of information suitable for members of the public and others- internal and external 3.4 State the correct procedures for handling and communicating confidential information.

Learning outcome
The learner will: 4. Know the current health and safety legislation and environmental good practice
Assessment criteria
The learner can: 4.1 Outline the current health and safety legislation, codes of practice and any additional requirements, which apply to this area of work.

Learning outcome
The learner will: 5. Understand the values of the organisation
Assessment criteria
The learner can: 5.1 Identify the values of the organisation eg policies and practices for customer care, promotion of environmental good practice or equality of opportunity.

Unit 436 Communicate with the public and others

Supporting information

Guidance

Simulation will not be acceptable where the unit is included in qualifications which verify competent performance. Please refer to Lantra's Assessment Strategy for further guidance.

Unit 437 Construct, maintain and repair steps

UAN:	**M/502/3227**
Level:	Level 2
Credit value:	3
GLH:	23
Relationship to NOS:	This unit is linked to Environmental Conservation NOS.
Endorsement by a sector or regulatory body:	This unit is endorsed by Lantra, the Sector Skills Council for Land and Environment.

Learning outcome
The learner will: 1. Be able to construct, maintain and repair steps
Assessment criteria
The learner can: 1.1 Prepare the site appropriately, and in a way which minimises the effect on the surrounding environment to include: • setting out and location • materials and resources • timing and timescales • working methods • suitability for expected use and local tradition 1.2 Make sure that the steps are secure, and suitable for its intended use 1.3 Construct, maintain or repair the steps to specification, and finish it in a way which fits in with the surrounding environment 1.4 Take the appropriate action without delay when problems occur during your work including: • accidental damage • difficulties in meeting the specification • disturbance to wildlife or environment 1.5 Inform the appropriate person of any potential improvements to the work specification 1.6 Make the site as good as possible when work is finished.

Learning outcome
The learner will: 2. Be able to work safely and minimise environmental damage
Assessment criteria
The learner can: 2.1 Work in a way which maintains health and safety and is consistent with relevant legislation, codes of practice and any additional requirements 2.2 Carry out work in a manner which minimises environmental damage 2.3 Dispose of waste safely and correctly.

Learning outcome
The learner will: 3. Be able to select, use and maintain relevant equipment
Assessment criteria
The learner can: 3.1 Select and use appropriate equipment for this area of work 3.2 Prepare, maintain and store equipment in a safe and effective working condition.

Learning outcome
The learner will: 4. Know how to construct, maintain and repair steps
Assessment criteria
The learner can: 4.1 Describe how to identify hazards and assess risks 4.2 Describe how to interpret risk assessments 4.3 Describe suitable methods for preparing the site 4.4 State the purpose of the steps 4.5 Outline how to interpret and use relevant specifications covering: • setting out and location • materials and resources • timing and timescales • working methods • suitability for expected use and local tradition 4.6 Outline the context within which the steps are set, and how this relates to the specification 4.7 Describe methods for constructing, maintaining and repairing steps 4.8 Describe problems which may occur during operations and how these should be dealt with • accidental damage • difficulties in meeting the specification

- disturbance to wildlife or environment

4.9 Outline the required condition of the site on completion of operations.

Learning outcome
The learner will: 5. Distinguish between different types of access structure
Assessment criteria
The learner can: 5.1 Identify and describe the defining characteristics of steps compared to: • simple bridges • fords • signs/way markers.

Learning outcome
The learner will: 6. Know relevant health and safety legislation and environmental good practice
Assessment criteria
The learner can: 6.1 Outline the current health and safety legislation, codes of practice and any additional requirements 6.2 Describe how environmental damage can be minimised 6.3 Describe the correct methods for disposing of waste.

Learning outcome
The learner will: 7. Know the types of equipment required and how to maintain them
Assessment criteria
The learner can: 7.1 Describe the equipment which will be required for the activity 7.2 Describe the methods of maintaining the range of equipment.

Unit 437 Construct, maintain and repair steps

Supporting information

Guidance

Simulation will not be acceptable where the unit is included in qualifications which verify competent performance. Please refer to Lantra's Assessment Strategy for further guidance.

Unit 438 Fell and process trees up to 380mm

UAN:	**M/504/0321**
Level:	Level 2
Credit value:	3
GLH:	23
Relationship to NOS:	This unit is linked to Trees and Timber NOS
Endorsement by a sector or regulatory body:	This unit is endorsed by Lantra, the Sector Skills Council for Land and Environment.
Aim:	The aim and purpose of this unit is to provide the learner with the knowledge and skills to fell and process trees up to 380mm (15") using a chainsaw

Learning outcome
The learner will: 1. Be able to work safely
Assessment criteria
The learner can: 1.1 Identify the **hazards and risks** associated with the working area and the proposed work 1.2 Use appropriate **tools, equipment and personal protective equipment (PPE)** 1.3 Work in a way which maintains health and safety and is consistent with relevant legislation and industry good practice 1.4 Carry out work to **minimise environmental damage** 1.5 Dispose of waste safely in line with legislation.

Range
Hazards and risks 2 hazards and the associated risks with the working area. 3 hazards and the associated risks with the proposed work. **Tools, equipment and personal protective equipment (PPE)** INDG317; AFAG301

Minimise environmental damage
Check the working area for potential (negative) environmental damage
Report finding(s) as appropriate
Carry out any required control measure(s).

Learning outcome
The learner will: 2. Be able to fell and process trees up to 380mm
Assessment criteria
The learner can: 2.1 Prepare site and establish escape route(s) as appropriate 2.2 **Prepare trees** appropriately to the tree condition and the specification for the site 2.3 Carry out **pre-start checks** and setting of the chainsaw 2.4 Demonstrate safe starting of the chainsaw 2.5 **Fell trees** using recognised felling methods and felling aids 2.6 **Remove branches** from felled trees using a recognised method 2.7 **Turn tree and remove under branches** using appropriate aid tools and method(s) where appropriate 2.8 Select take down method which is relevant to the hung up tree size, form and condition 2.9 Take down a hung up tree using hand tools 2.10 Cross-cut timber to length in accordance with the specification 2.11 **Stack produce for subsequent operations** using appropriate aids and tools 2.12 Check timber is in an appropriate and safe position 2.13 Clean and tidy working area.

Range
Prepare trees Brashing to be demonstrated or simulated **Pre-start checks** INDG317; Operators handbook **Fell trees** AFAG302 **Remove branches** AFAG303

Turn tree and remove under branches
AFAG303

Stack produce for subsequent operations
Stacking must be tidy.
AFAG304.
INDG145.
Manual Handling Operations Regulations 1992.

Learning outcome
The learner will: 3. Know relevant health and safety legislation and industry good practice
Assessment criteria
The learner can: 3.1 Outline the **key health and safety legislation and industry good practice** 3.2 Outline the **emergency planning procedures** relevant to the work area 3.3 Describe how to use and maintain tools**,** equipment and personal protective equipment 3.4 Describe how **environmental damage** can be caused and minimised 3.5 Describe the correct methods for disposing of waste 3.6 Describe the **legal and environmental factors** for felling trees.

Range
Key health and safety legislation and industry good practice Health and Safety at Work Act 1974**;** Provision and Use of Work Equipment Regulations 1998 (PUWER 98)**;** Arboriculture Forestry Advisory Group (AFAG) **Emergency planning procedures** AFAG802 – paragraph 16: 5 emergency procedures **Environmental damage** 1 cause; 1 prevention **Methods for disposing of waste** 2 methods **Legal and environmental factors**

2 legal factors 2 environmental factors

Learning outcome
The learner will: 4. Know how to fell and process trees up to 380mm
Assessment criteria
The learner can: 4.1 Describe how to **identify which trees need to be felled** 4.2 Describe alternative felling techniques for trees up to 200mm for: • Upright trees • Backward leaning trees • Trees heavily leaning/weighted in the intended felling direction 4.3 Describe felling techniques for felling trees over 200mm for: • Upright trees • Backward leaning trees • Trees heavily leaning/weighted in the intended felling direction 4.4 Describe how to recognise **signs of disease and decay** in trees and modify felling methods accordingly 4.5 Explain the **advantages** of setting up or using a natural felling bench, brash mat or similar support prior to felling 4.6 Explain **how and when to use additional equipment,** to assist with the felling of trees 4.7 State how to recognise when a tree is difficult to fell 4.8 Describe the **additional safeguards** to implement when felling: • In proximity to paths • Roads or areas with public access • Underground/above ground wayleaves.

Range
identify which trees need to be felled 2 examples **Signs of disease and decay** 1 recognise 1 modify **Advantages** 2 advantages

How and when to use additional equipment

1 how

1 when

Additional safeguards

1 safeguard for each

Learning outcome
The learner will: 5. Know how to remove branches from felled trees using a chainsaw
Assessment criteria
The learner can: 5.1 Describe how the method of removing branches will vary with **tree species** 5.2 Describe how to identify tension and compression in branches 5.3 State the **risks to consider when removing branches** 5.4 State how and when to use equipment to assist with the snedding/ de-limbing of trees 5.5 Describe a technique for removing branches above shoulder height 5.6 Explain the **advantages of leaving a clean stem** after snedding/ de-limbing 5.7 State **how to deal with arisings** after snedding/ de-limbing,

Range
Tree species 1 Broadleaved 1 Conifer **Risks to consider when removing branches** 4 risks **Advantages of leaving a clean stem** 3 advantages **How to deal with arisings** 2 ways

Learning outcome

The learner will: 6. Know how to take down hung up trees
Assessment criteria
The learner can: 6.1 Describe **take down methods** for a range of tree sizes 6.2 Describe **take down methods for trees using winches** and other manual and mechanical means 6.3 Identify where the danger areas are in relation to the trees being taken down 6.4 State **incorrect techniques for dealing with hung up trees** 6.5 Describe the appropriate actions to take if a tree cannot be taken down.

Range
Take down methods 2 methods **Take down methods for trees using winches** 1 method for each **incorrect techniques for dealing with hung up trees** AFAG302 State 5 techniques.

Unit 438 Fell and process trees up to 380mm

Supporting information

Guidance

Trees may be conifer or broad leaved.

Size: between 200mm (8") and 380mm (15")

Maximum recommended guide bar length 15"

Learner must prove operator competence using appropriate felling methods for two of the following tree types

- Upright - Minimum 1, maximum 2
- Forward leaning - Minimum 1, maximum 2
- Backward leaning - Minimum 1, maximum 2
- heavily leaning/weighted in the intended felling direction - minimum 1, maximum 2

All felled trees must have all branches removed flushed with the stem. All felled trees must be cross-cut and stacked tidily-1 hung up tree must be taken down using hand tools.

Refer to Lantra SSCs assessment strategy for further details.

Unit 439 Control pollution incidents

UAN:	**M/504/3641**
Level:	Level 2
Credit value:	5
GLH:	38
Relationship to NOS:	This unit is linked to Trees and Timber NOS
Endorsement by a sector or regulatory body:	This unit is endorsed by Lantra, the Sector Skills Council for Land and Environment
Aim:	The aim of this unit is to provide the learner with the knowledge and skills required to control pollution incidents and land based industries.

Learning outcome
The learner will: 1. Be able to work safely
Assessment criteria
The learner can: 1.1 Identify the hazards and risks associated with the working area and the proposed work 1.2 Use appropriate tools, equipment and Personal Protective Equipment 1.3 Carry out work specification in accordance with relevant legislation, industry good practice and promotes health and safety 1.4 Carry out work to minimise environmental damage 1.5 Dispose of waste in line with legislation and codes of practice 1.6 Record clear and accurate information

Learning outcome
The learner will: 2. Be able to control pollution incidents
Assessment criteria
The learner can: 2.1 Identify the nature, extent and potential impact of the **pollution incident** 2.2 **Treat the pollution** incident following agreed pollution control procedures

Range
Pollution incident Incidents involving the following types of pollutant: oils and fuels chemicals silt **Treat the pollution** Use either of the following control measures: constructing barrier ditches constructing barrier booms Note any changes to the scale or nature of the incident and report these changes to the designated person.

Learning outcome
The learner will: 3. Know relevant health and safety legislation and industry good practice
Assessment criteria
The learner can: 3.1 Outline the current health and safety legislation, industry good practice and any additional requirements 3.2 Describe how to use and maintain tools, equipment and Personal Protective Equipment 3.3 Describe how environmental damage can be minimised 3.4 Describe the correct methods for disposing of waste 3.5 Outline the emergency planning procedures relevant to the work area

Learning outcome
The learner will: 4. Know how to control pollution incidents
Assessment criteria
The learner can: 4.1 Explain the chain of command and roles of personnel in a pollution incident 4.2 Describe pollution control measures for oils, fuels, chemicals and silt 4.3 Describe how high pressure, low water volume sprays are used in controlling pollution incidents and pollutants 4.4 Explain the impact of fuels, oils, chemicals and silt as pollutants

4.5	Describe the implications of terrain, ground conditions, vegetation type, season and weather
4.6	Describe the use of absorbent materials to control surface borne pollutants
4.7	Outline the possible penalties for different pollution incidents

Unit 439 Control pollution incidents

Supporting information

Guidance

Simulation will not be acceptable where the unit is included in qualifications which verify competent performance. Please refer to Lantra's Assessment Strategy for further guidance.

Unit 440 Build and maintain tools and devices to process coppice and greenwood products

UAN:	**M/504/3669**
Level:	Level 2
Credit value:	3
GLH:	23
Relationship to NOS:	This unit is linked to Trees and Timber NOS
Endorsement by a sector or regulatory body:	This unit is endorsed by Lantra, the Sector Skills Council for Land and Environment
Aim:	The aim and purpose of this unit is to provide the learner with the knowledge and skills to build and maintain tools and devices used to process coppice and greenwood products

Learning outcome
The learner will: 1. Be able to work safely
Assessment criteria
The learner can: 1.1 Identify the **hazards and risks** associated with the working area and the proposed work 1.2 Use appropriate tools, equipment and personal protective equipment safely 1.3 Carry out work in accordance with relevant legislation, industry good practice and maintains health and safety

Range
Hazards and risks Complete an appropriate risk assessment

Learning outcome
The learner will: 2. Be able to build and maintain tools and devices to process coppice and greenwood products
Assessment criteria
The learner can: 2.1 Develop a clear and accurate specification to build tools or devices 2.2 Source suitable materials to create the required components for tools or devices 2.3 **Prepare** the required components for tools or devices 2.4 Assemble tools or devices 2.5 Ensure **tools or devices are safe** and fit for purpose 2.6 Maintain tools and devices in safe and effective working condition.

Range
Prepare Adjust tools or device as necessary **Tools or devices are safe** Identify any faults or improvements that can be made to the tools and devices and make right.

Learning outcome
The learner will: 3. Know relevant health and safety legislation and industry good practice
Assessment criteria
The learner can: 3.1 Outline the current health and safety legislation, industry good practice and any additional requirements 3.2 Describe how to use and maintain tools, equipment and personal protective equipment (PPE).

Learning outcome
The learner will: 4. Know how to build and maintain tools and devices to process coppice and greenwood products
Assessment criteria
The learner can: 4.1 Describe suitable materials and their assembly 4.2 Explain the function of each part of a tool or device

4.3	Evaluate different sources of information to obtain clear and comprehensive specifications for tools and devices
4.4	Describe different designs and their relative merits
4.5	Describe the primary function of tools and devices and modifications that can improve performance
4.6	Explain the main causes of deterioration of tools and devices and measures to alleviate these causes
4.7	Describe methods of maintaining the range of tools and devices

Unit 440 Build and maintain tools and devices to process coppice and greenwood products

Supporting information

Guidance

Simulation will not be acceptable where the unit is included in qualifications which verify competent performance. Please refer to Lantra's Assessment Strategy for further guidance.

Unit 441 Maintain coppice health and productivity

UAN:	**M/504/3672**
Level:	Level 2
Credit value:	4
GLH:	30
Relationship to NOS:	This unit is linked to Trees and Timber
Endorsement by a sector or regulatory body:	This unit is endorsed by Lantra, the Sector Skills Council for Land and Environment
Aim:	This unit provides the learner with the knowledge and skills required to maintain coppice health and productivity

Learning outcome
The learner will: 1. Be able to work safely
Assessment criteria
The learner can: 1.1 Identify the **hazards and risks** associated with the working area and the proposed work 1.2 Use appropriate tools, equipment and personal protective equipment (PPE) safely 1.3 Carry out work in accordance with relevant legislation, industry good practice, any additional requirements and maintains health and safety 1.4 Carry out work to minimise environmental damage.

Range
Hazards and risks Complete an appropriate risk assessment

Learning outcome
The learner will: 2. Be able to achieve optimum coppice density and health
Assessment criteria
The learner can: 2.1 Identify areas where stock density can be improved 2.2 Increase **coppice density** 2.3 Improve site conditions to encourage natural regeneration 2.4 Control **vertebrate pest damage** using appropriate method 2.5 Control **unwanted weed vegetation** using appropriate methods.

Range
Coppice density By planting with appropriate stock and tree species increase coppice density by 'layering' **Vertebrate pest damage** Using two methods **Unwanted weed vegetation** Identify methods of controlling unwanted vegetation.

Learning outcome
The learner will: 3. Know relevant health and safety legislation and industry good practice
Assessment criteria
The learner can: 3.1 Outline the current health and safety legislation, industry good practice and any additional requirements 3.2 Describe how to use and maintain tools, equipment and personal protective equipment 3.3 Describe how environmental damage can be minimised.

Learning outcome
The learner will: 4. Know how to maintain coppice health and productivity
Assessment criteria
The learner can: 4.1 Describe the effects of growing conditions and biodiversity on coppice health

4.2	Describe the **optimum coppice density appropriate to species, rotation and location**
4.3	Describe methods for **improving coppice density**
4.4	Describe the **main woodland sources of damage and their methods of control**
4.5	Describe the main **plant species which cause damage and how these can be manipulated to optimise coppice growth**
4.6	Describe the **conditions** which affect the choice of appropriate management methods.

Range

Optimum coppice density appropriate to species, rotation and location

the effect of coppice density on productivity

reasons for poor coppice density

Improving coppice density

Their benefits and appropriate use

Main woodland sources of damage and their methods of control

Covering: (one of each)

- Vertebrates
- Invertebrates
- Biotic
- Abiotic

Plant species which cause damage and how these can be manipulated to optimise coppice growth

Three of each

Conditions

For example economic, site designations, environmental etc.

Unit 441 Maintain coppice health and productivity

Supporting information

Guidance

Simulation will not be acceptable where the unit is included in qualifications which verify competent performance. Please refer to Lantra's Assessment Strategy for further guidance.

Unit 442 Treat and dispose of stumps and roots

UAN:	**M/601/0262**
Level:	Level 2
Credit value:	1
GLH:	8
Relationship to NOS:	This unit is linked to Trees and Timber NOS
Endorsement by a sector or regulatory body:	This unit is endorsed by Lantra, the Sector Skills Council for Land and Environment

Learning outcome
The learner will: 1. Be able to treat and dispose of stumps and roots
Assessment criteria
The learner can: 1.1 Establish the condition of the stumps and roots to be treated 1.2 Locate and protect services and property 1.3 Use treatment methods which are appropriate to the landowner's requirements, legislation, the situation and industry guidelines 1.4 Restore the site to a condition that is acceptable to landowner and specification.

Learning outcome
The learner will: 2. Be able to work safely and minimise environmental damage
Assessment criteria
The learner can: 2.1 Work in a way which maintains health and safety and is consistent with relevant legislation, codes of practice and any additional requirements 2.2 Carry out work in a manner which minimises environmental damage 2.3 Dispose of waste safely and correctly.

Learning outcome
The learner will: 3. Be able to select, use and maintain equipment
Assessment criteria
The learner can: 3.1 Select and use appropriate equipment for this area of work 3.2 Prepare, maintain and store equipment in a safe and effective working condition.

Learning outcome
The learner will: 4. Know how to treat and dispose of stumps
Assessment criteria
The learner can: 4.1 State how to identify, locate and protect services and property and why this is important 4.2 Outline the importance of restoring site to acceptable condition 4.3 Describe a range of methods for stump and root treatment and when these should be used 4.4 Describe how to establish the condition of the stump to be treated.

Learning outcome
The learner will: 5. Know relevant health and safety legislation and environmental good practice
Assessment criteria
The learner can: 5.1 Outline the current health and safety legislation, codes of practice and any additional requirements 5.2 Describe how environmental damage can be minimised 5.3 Describe the correct methods for disposing of waste.

Learning outcome
The learner will: 6. Know the types of equipment required and how to maintain them
Assessment criteria
The learner can: 6.1 Describe the equipment and methods of maintaining the equipment which will be required for the activity.

Unit 442 Treat and dispose of stumps and roots

Supporting information

Guidance

Simulation will not be acceptable where the unit is included in qualifications which verify competent performance. Please refer to Lantra's Assessment Strategy for further guidance.

Unit 443 Resolve customer service problems

UAN:	**M/601/1511**
Level:	Level 2
Credit value:	6
GLH:	40
Relationship to NOS:	n/a
Endorsement by a sector or regulatory body:	This unit is endorsed by Lantra, the Sector Skills Council for Land and Environment

Learning outcome
The learner will: 1. Spot customer service problems
Assessment criteria
The learner can: 1.1 Listen carefully to customers about any problem they have raised 1.2 Ask customers about the problem to check their understanding 1.3 Recognise repeated problems and alert the appropriate authority 1.4 Share customer feedback with others to identify potential problems before they happen 1.5 Identify problems with systems and procedures before they begin to affect customers.

Learning outcome
The learner will: 2. Pick the best solution to resolve customer service problems
Assessment criteria
The learner can: 2.1 Identify the options for resolving a customer service problem 2.2 Work with others to identify and confirm the options to resolve a customer service problem 2.3 Work out the advantages and disadvantages of each option for their customer and the organisation 2.4 Pick the best option for their customer and the organisation

2.5	Identify for their customer other ways that problems may be resolved if they are unable to help.

Learning outcome
The learner will: 3. Take action to resolve customer service problems
Assessment criteria
The learner can: 3.1 Discuss and agree the options for solving the problem with their customer 3.2 Take action to implement the option agreed with their customer 3.3 Work with others and their customer to make sure that any promises related to solving the problem are kept 3.4 Keep their customer fully informed about what is happening to resolve the problem 3.5 Check with their customer to make sure the problem has been resolved to the customer's satisfaction 3.6 Give clear reasons to their customer when the problem has not been resolved to the customer's satisfaction.

Learning outcome
The learner will: 4. Know how to resolve customer service problems
Assessment criteria
The learner can: 4.1 Describe organisational procedures and systems for dealing with customer service problems 4.2 Explain how to defuse potentially stressful situations 4.3 Describe how to negotiate 4.4 Identify the limitations of what they can offer their customer 4.5 Describe types of action that may make a customer problem worse and should be avoided.

Unit 443 Resolve customer service problems

Supporting information

Guidance

Simulation will not be acceptable where the unit is included in qualifications which verify competent performance. Please refer to Lantra's Assessment Strategy for further guidance.

Unit 444 Safe use of a mobile elevated work platform

UAN:	**Y/504/4038**
Level:	Level 2
Credit value:	2
GLH:	7
Relationship to NOS:	This unit is linked to Trees and Timber NOS
Endorsement by a sector or regulatory body:	This unit is endorsed by Lantra, the Sector Skills Council for Land and Environment

Learning outcome
The learner will: 1. Be able to prepare a mobile elevated work platform for operation
Assessment criteria
The learner can: 1.1 Identify hazards and risks specific to the site, task and machine 1.2 Rectify hazards and risks specific to site, task and machine 1.3 State the personal protective equipment (PPE) that is required to operate a mobile elevated work platform 1.4 Describe the function of all instruments and controls on the machine 1.5 Explain the meaning of the safety decals on the mobile elevated work platform 1.6 Carry out pre-start checks on the mobile elevated work platform 1.7 State the legal and safety requirements relating to the use or movement of a mobile elevated work platform 1.8 Identify the working load of the mobile elevated work platform 1.9 Rig the mobile elevated work platform for work 1.10 State the requirements for rigging on uneven or soft ground 1.11 State the emergency procedures to be taken in the event of: • injury to operatives • mechanical failure.

Learning outcome
The learner will: 2. Be able to operate a mobile elevated work platform
Assessment criteria
The learner can: 2.1 State environmental conditions when a mobile elevated work platform should not be raised 2.2 Operate the mobile elevated work platform safely 2.3 Undertake task from the mobile elevated work platform relevant to normal work situation 2.4 Lower the mobile elevated work platform 2.5 Describe how to perform an emergency descent from a mobile elevated work platform.

Learning outcome
The learner will: 3. Be able to prepare the mobile elevated work platform for transport
Assessment criteria
The learner can: 3.1 Prepare the mobile elevated work platform for transport 3.2 Describe the factors to be considered when cleaning mobile elevated work platforms and reasons for cleaning 3.3 Explain the reasons to inspect the mobile elevated work platform after use.

Unit 444 Safe use of a mobile elevated work platform

Supporting information

Guidance

Simulation will not be acceptable where the unit is included in qualifications which verify competent performance. Please refer to Lantra's Assessment Strategy for further guidance.

Unit 445 Prepare horse for timber work

UAN:	**R/504/3678**
Level:	Level 2
Credit value:	3
GLH:	23
Relationship to NOS:	This unit is linked to Trees and Timber NOS
Endorsement by a sector or regulatory body:	This unit is endorsed by Lantra, the Sector Skills Council for Land and Environment
Aim:	The aim and purpose of this unit is to provide the learner with the knowledge and skills required to handle, transport and prepare a horse(s) to extract wood

Learning outcome
The learner will: 1. Be able to work safely
Assessment criteria
The learner can: 1.1 Identify the **hazards and risks** associated with the working area and the proposed work 1.2 Use appropriate tools, equipment and personal protective equipment (PPE) safely 1.3 Carry out work in accordance with **relevant legislation, industry good practice and promotes health and safety**.

Range
Hazards and risks Complete an appropriate risk assessment **Relevant legislation, industry good practice and promotes health and safety** Including and animal health and welfare

Learning outcome
The learner will: 2. Be able to prepare horse for timber work
Assessment criteria
The learner can: 2.1 Care for horse in line with relevant welfare requirements throughout transportation 2.2 **Prepare the horse for extraction work** in line with welfare requirements 2.3 **Fit** appropriate harness and extraction accessories for wood product extraction 2.4 Handle the horse to maintain control and welfare throughout operations

Range
Prepare the horse for extraction work In relation to load/during and unloading throughout transportation **Fit** Select Check Prepare Fit.

Learning outcome
The learner will: 3. Know relevant health and safety legislation and industry good practice
Assessment criteria
The learner can: 3.1 Outline the current health and safety legislation, industry good practice and any additional requirements 3.2 Describe how to use and maintain tools, equipment and personal protective equipment (PPE).

Learning outcome
The learner will: 4. Know how to prepare horse for timber work
Assessment criteria

The learner can:

4.1 Describe **how to prepare for emergencies** relevant to the site

4.2 State the implications of terrain, ground conditions, season, weather and timber type on handling, transporting and preparing the horse

4.3 Describe the procedures involved in transporting and preparing horses for extraction work

4.4 State how to fit **various types of harnesses**

4.5 Describe the advantages and disadvantages of the different **types of harnesses**

4.6 State how to handle horses safely and with regard to their welfare

4.7 Describe how to provide for, and maintain, horse welfare in relation to the provision of food, water and rest

4.8 Describe the capabilities of the horse used, in relation to:

- fitness
- temperament
- experience
- size
- weight
- type of extraction equipment used.

Range

How to prepare for emergencies

Provide instances/examples of such need

Various types of harnesses

Various types: other than those used in practical the need to carry out checks and maintenance on equipment

Types of harnesses

(eg Scandinavian, trace, plough, cart)

Unit 445 Prepare horse for timber work

Supporting information

Guidance

Simulation will not be acceptable where the unit is included in qualifications which verify competent performance. Please refer to Lantra's Assessment Strategy for further guidance.

Unit 446 Plant trees

UAN:	**R/504/3647**
Level:	Level 2
Credit value:	2
GLH:	15
Relationship to NOS:	This unit is linked to Trees and Timber NOS
Endorsement by a sector or regulatory body:	This unit is endorsed by Lantra, the Sector Skills Council for Land and Environment
Aim:	The aim of this unit is to provide the learner with the knowledge and skills required to manually plant and establish trees.

Learning outcome
The learner will: 1. Be able to work safely
Assessment criteria
The learner can: 1.1 Identify the hazards and risks associated with the working area and the proposed work 1.2 Use appropriate tools, equipment and Personal Protective Equipment 1.3 Carry out work specification in accordance with relevant legislation, codes of practice, any additional requirements and maintains health and safety.

Learning outcome
The learner will: 2. Be able to plant trees
Assessment criteria
The learner can: 2.1 Ensure the bio-security and the condition of the tree before transporting and establishment 2.2 Check condition and species of tree in line with planting specification 2.3 Handle plant material to minimise damage and optimise growth 2.4 Plant trees in line with the planting specification

2.5 Provide **support and protection** to trees appropriate to size of stock and specification.

Range
Support and protection Provide any necessary/appropriate after care

Learning outcome
The learner will: 3. Know relevant health and safety legislation and industry good practice
Assessment criteria
The learner can: 3.1 Outline the current health and safety legislation, industry good practice and any additional requirements 3.2 Describe how to use and maintain tools, equipment and Personal Protective Equipment.

Learning outcome
The learner will: 4. Know how to plant trees
Assessment criteria
The learner can: 4.1 Describe how to choose the right quality, compatibility, size and species of **stock** 4.2 Describe **planting support and protection methods** for a variety of trees 4.3 Describe how to handle and plant different types of plant material to maintain stock in good condition 4.4 State how to check the condition and bio-security of trees to ensure they are fit for establishment 4.5 Describe **aftercare** requirements of newly planted trees to ensure successful establishment 4.6 State why planting records should be kept.

Range
Stock And to recognise health stock **Planting support and protection methods** State how to select suitable support systems where required

Aftercare
Including beat up requirements.

Unit 446 Plant trees

Supporting information

Guidance

Simulation will not be acceptable where the unit is included in qualifications which verify competent performance. Please refer to Lantra's Assessment Strategy for further guidance.

Unit 447 Prepare and operate hand fed machinery to process timber on site

UAN:	**R/504/3681**
Level:	Level 2
Credit value:	5
GLH:	38
Relationship to NOS:	This unit is linked to Trees and Timber NOS
Endorsement by a sector or regulatory body:	This unit is endorsed by Lantra, the Sector Skills Council for Land and Environment
Aim:	The aim and purpose of this unit is to provide the learner with the knowledge and skills required to process timber using hand fed processing machinery. Hand-fed machinery includes mobile saw bench, firewood processor, stake splitter, pointing machine, peeler (de-barker) and woodchippers designed for chipping timber to a quality specification The machines will be fed by hand

Learning outcome
The learner will: 1. Be able to work safely
Assessment criteria
The learner can: 1.1 Identify the **hazards and risks** associated with the working area and the proposed work 1.2 Use appropriate **tools, equipment and Personal Protective Equipment** 1.3 Carry out work specification in accordance with relevant legislation, industry good practice and maintains health and safety 1.4 Carry out work to minimise environmental damage

Range
Hazards and risks Carry out a site risk assessment Identify route Assess the Operational and environmental requirements for the site **Tools, equipment and Personal Protective Equipment** Store machinery, fuels and equipment securely on site

Learning outcome
The learner will: 2. Be able to prepare machine for processing
Assessment criteria
The learner can: 2.1 Carry out **pre and post-start checks**, to test all operating functions prior to processing timber 2.2 Plan **work and the worksite** and maintain safe working areas to operate machinery safely and efficiently.

Range
Pre- and post-start checks Carry out pre-planned visual inspection/checks on machinery Carry out a practical check on all operating functions of the equipment including safety devices. **Work and the worksite** With minimal damage to the worksite, standing trees, tracks, roads, drains and the wider environment in accordance with the site and job specification. Manoeuvre or direct manoeuvring of machine into working position and set in - feed and discharge equipment. Utilise additional safeguards such as barriers, banksman and/or additional signs when operating machine and comply with safety distances from e.g. adjacent roads and tracks or where others are working.

Learning outcome
The learner will: 3. Be able to process timber on site
Assessment criteria
The learner can: 3.1 **Manoeuvre the machinery** to ensure safe and efficient working

3.2	**Position the machinery** to ensure safe and efficient working
3.3	**Process timber** in accordance with the job specification
3.4	Move timber products
3.5	**Stack timber products** safely and in a position which facilitates subsequent handling

Range
Manoeuvre the machinery Manoeuvre the machine on site in a safe and effective way. Safely and efficiently in relation to the materials to be processed and the stacking area for products **Position the machinery** Set up and position timber and product handling equipment as appropriate to the machine **Process timber** Check that accumulation of converted timber and by-products is kept within specified limits and does not affect the safety and efficiency of the processing and does not affect any trees, tracks, roads, drains or the wider environment **Stack timber products** Present by-products for subsequent handling in accordance with job specification and restore the site to an acceptable condition

Learning outcome
The learner will: 4. Know how to prepare machine for processing on site
Assessment criteria
The learner can: 4.1 Describe the **safety requirements, routine and functional checks** required for machine and operator protection 4.2 Describe the procedure for hitching and unhitching or loading and unloading the machine.

Range
Safety requirements, routine and functional checks Such as brakes, guards and other safety devices. State the need for carrying out routine operator checks and basic maintenance. Identify the function of all operating controls for drive unit and processing equipment.

State how to identify damage and ware to processing blades/knives how to change, set and sharpen blades and knives.

Learning outcome
The learner will: 5. Know how to process timber on site
Assessment criteria
The learner can: 5.1 Describe the capabilities and limitations of the machinery used in relation to the diameter and quality of timber to be converted 5.2 Explain the implications of terrain, ground conditions, season and weather on working and stacking areas, and on using machinery 5.3 State the implications of converting long timber on machine operation 5.4 Outline methods of grading, stacking and handling products and by-products, by hand and with the aid of handling machinery.

Learning outcome
The learner will: 6. Know relevant health and safety legislation
Assessment criteria
The learner can: 6.1 Outline the current **health and safety legislation, codes of practice and any additional requirements** 6.2 Describe the types of **records** that may be required for management and legislative purposes.

Range
Health and safety legislation, codes of practice and any additional requirements Describe the principles of safe manual handling techniques whilst converting timber with processing machinery. Describe how environmental damage can be minimised. Describe the implications of working at height in relation to routine operator checks and basic maintenance. Describe causes of, and how to prevent potential pollution and environmental damage when preparing and using loader - fed processor.

Describe how to minimise any pollution incident including the pollution control equipment that should be available on site and to whom any incidents should be reported.

Identify current guidelines on machinery operation, risk zones and safety clearances from overhead electricity conductors what to do in the event of contact with power lines.

Records

The importance of accurate record keeping, LOLER, PUWER.

Unit 447 Prepare and operate hand fed machinery to process timber on site

Supporting information

Guidance

Simulation will not be acceptable where the unit is included in qualifications which verify competent performance. Please refer to Lantra's Assessment Strategy for further guidance.

Unit 448 Clear sites for planting

UAN:	**R/504/3695**
Level:	Level 2
Credit value:	2
GLH:	15
Relationship to NOS:	This unit is linked to Trees and Timber NOS
Endorsement by a sector or regulatory body:	This unit is endorsed by Lantra, the Sector Skills Council for Land and Environment
Aim:	The aim and purpose of this unit is to provide the learner with the knowledge and skills to clear sites in preparation for planting

Learning outcome
The learner will: 1. Be able to work safely
Assessment criteria
The learner can: 1.1 Identify the hazards and risks associated with the working area and the proposed work 1.2 Use appropriate tools, equipment and Personal Protective Equipment 1.3 Carry out work in accordance with relevant legislation, industry good practice and promotes health and safety 1.4 Carry out work to minimise environmental damage 1.5 Dispose of waste in line with legislation and codes of practice.

Learning outcome
The learner will: 2. Be able to clear sites for planting
Assessment criteria
The learner can: 2.1 Select appropriate clearance methods in line with specification and the site conditions 2.2 Clear the site taking into account available resources, weather and ground conditions

Learning outcome
The learner will: 3. Know relevant health and safety legislation and industry good practice
Assessment criteria
The learner can: 3.1 Outline the current health and safety legislation, industry good practice and any additional requirements 3.2 Describe how to use and maintain tools, equipment and Personal Protective Equipment 3.3 Describe how environmental damage can be minimised 3.4 Describe the correct methods for disposing of waste.

Learning outcome
The learner will: 4. Know how to clear sites for planting
Assessment criteria
The learner can: 4.1 State how to deal with overhead or ground obstructions 4.2 Describe the different **methods for clearing sites** 4.3 Outline how to interpret specifications and select appropriate clearance methods 4.4 State how the site conditions affect the selection of clearance methods.

Range
Methods for clearing sites covering • Chemical spraying • Burning • Cutting • Chipping • Stump removal • Brash raking • Brash baling.

Unit 448 Clear sites for planting

Supporting information

Guidance

Simulation will not be acceptable where the unit is included in qualifications which verify competent performance. Please refer to Lantra's Assessment Strategy for further guidance.

Unit 449 Prepare a safe working area for tree work operations

UAN:	**R/504/3700**
Level:	Level 2
Credit value:	3
GLH:	23
Relationship to NOS:	This unit is linked to Trees and Timber NOS
Endorsement by a sector or regulatory body:	This unit is endorsed by Lantra, the Sector Skills Council for Land and Environment

Learning outcome
The learner will: 1. Be able to work safely
Assessment criteria
The learner can: 1.1 Identify the hazards and risks associated with the working area and the proposed work 1.2 Use appropriate tools, equipment and Personal Protective Equipment 1.3 Carry out work in accordance with relevant legislation, industry good practice and promotes health and safety 1.4 Carry out work to minimise environmental damage 1.5 Dispose of waste in line with legislation and codes of practice.

Learning outcome
The learner will: 2. Be able to Prepare and maintain a safe working area
Assessment criteria
The learner can: 2.1 Implement appropriate **working methods** in accordance with the risks.

Range
Working methods

Covers fuelling and disposal to ensure safe and efficient working practices.

Learning outcome
The learner will: 3. Know relevant health and safety legislation and industry good practice
Assessment criteria
The learner can: 3.1 Outline the current health and safety legislation, industry good practice and any additional requirements 3.2 Describe how to use and maintain tools, equipment and Personal Protective Equipment 3.3 Describe how environmental damage can be minimised 3.4 Describe the correct methods for disposing of waste.

Learning outcome
The learner will: 4. Know how to Prepare and maintain a safe working area
Assessment criteria
The learner can: 4.1 State the key elements of a **method statement** 4.2 State the correct **location and positioning of warning signs and access controls** 4.3 Describe how to effectively lay out area 4.4 Explain how **species and condition of trees** affect work 4.5 Identify the responsibilities of the landowner.

Range
Method statement Manage the safe use and storage on site of climbing aids, pruning tools etc. **Location and positioning of warning signs and access controls** Signage of highways etc. **Species and condition of trees** Environmental controls/impacts aspects i.e. bats, badgers, water courses, noise, fauna, flora etc.

Unit 449 Prepare a safe working area for tree work operations

Supporting information

Guidance

Simulation will not be acceptable where the unit is included in qualifications which verify competent performance. Please refer to Lantra's Assessment Strategy for further guidance.

Unit 450 Cross-cut timber using a chainsaw

UAN:	**T/504/0319**
Level:	Level 2
Credit value:	1
GLH:	8
Relationship to NOS:	This unit is linked to Trees and Timber NOS
Endorsement by a sector or regulatory body:	This unit is endorsed by Lantra, the Sector Skills Council for Land and Environment
Aim:	The aim and purpose of this unit is to provide the learner with the knowledge and skill to cross-cut timber using a chainsaw

Learning outcome
The learner will: 1. Be able to work safely
Assessment criteria
The learner can: 1.1 Identify the **hazards and risks** associated with the working area and the proposed work 1.2 Use appropriate **tools, equipment and personal protective equipment (PPE)** 1.3 Work in a way which maintains health and safety and is consistent with relevant legislation and industry good practice 1.4 Carry out work to **minimise environmental damage**.

Range
Hazards and risks 3 hazards and the associated risks with the working area. 3 hazards and the associated risks with the proposed work. **Tools, equipment and personal protective equipment (PPE)** INDG317; AFAG301 **Minimise environmental damage** Check the working area for potential (negative) environmental damage Report finding(s) as appropriate

Carry out any required control measure(s).

Learning outcome
The learner will: 2. Be able to cross-cut timber using a chainsaw
Assessment criteria
The learner can: 2.1 Carry out **pre-start checks and setting of the machine** for use 2.2 Inspect timber to identify tension and compression 2.3 Demonstrate safe starting of the chainsaw 2.4 **Cross-cut timber** to length using a chainsaw in accordance with the job specification 2.5 Use appropriate boring cuts to initiate either tension or compression cuts 2.6 **Stack produce** for subsequent operations using appropriate aids and tools 2.7 Check timber is in an appropriate and safe position 2.8 Clean and tidy working area.

Range
Pre-start checks and setting of the machine INDG317; Operators handbook Oil and fuel mix **Cross-cut timber** AFAG301; AFAG304 **Stack produce** Stacking must be tidy. AFAG304. INDG145. Manual Handling Operations Regulations 1992.

Learning outcome
The learner will: 3. Know relevant health and safety legislation and industry good practice
Assessment criteria
The learner can: 3.1 Outline the **key health and safety legislation and industry good practice**

3.2	Outline the **emergency planning procedures** relevant to the working area
3.3	Describe how to use and maintain equipment
3.4	Describe how **environmental damage can be minimised**.

Range
Key health and safety legislation and industry good practice Health and Safety at Work Act 1974 Provision and Use of Work Equipment Regulations 1998 (PUWER 98); Arboriculture Forestry Advisory Group (AFAG) **Emergency planning procedures** AFAG802 – paragraph 16: 2 emergency procedures **Use and maintain equipment** Arboriculture Forestry Advisory Group (AFAG) **Environmental damage can be minimised** 1 cause; 1 prevention.

Learning outcome
The learner will: 4. Know how to cross-cut timber using a chainsaw
Assessment criteria
The learner can: 4.1 Describe tension and compression in timber 4.2 State **recognised methods** required to cross-cut timber above guide bar length 4.3 Describe how to **safely move timber**: • By hand • With the use of aid tools • Mechanical assistance 4.4 Explain how to **grade and present logs** for extraction and further processing 4.5 State **precautions** to take to avoid uncontrolled timber movement 4.6 Describe how to apply **ergonomic working methods**.

Range
Recognised methods 2 examples **Safely move timber** 2 examples of each **Grade and present logs** 1 of each (grade, present) **Precautions** 1 precaution **Ergonomic working methods** 2 methods INDG145.

Unit 450 Cross-cut timber using a chainsaw

Supporting information

Guidance

Maximum recommended guide bar length 380mm (15")
Timber for cross-cutting must be between 200-380mmCross-cut:
Severing cuts of minimum 10; maximum 20
Under tension/compression minimum 4 maximum 8
Demonstration of a bore cut
Refer to Lantra SSCs assessment strategy for further details

Unit 451 Maintain open drainage systems

UAN:	**J/504/3645**
Level:	Level 2
Credit value:	3
GLH:	23
Relationship to NOS:	This unit is linked to Environmental Conservation NOS
Endorsement by a sector or regulatory body:	This unit is endorsed by Lantra, the Sector Skills Council for Land and Environment
Aim:	The aim of this unit is to provide the learner with the knowledge and skills required to maintain an open drainage system.

Learning outcome
The learner will: 1. Be able to work safely
Assessment criteria
The learner can: 1.1 Identify the hazards and risks associated with the working area and the proposed work 1.2 Use appropriate tools, equipment and Personal Protective Equipment 1.3 Carry out work specification in accordance with relevant legislation, industry good practice and maintains health and safety 1.4 Carry out work to minimise environmental damage 1.5 Dispose of waste in line with legislation and codes of practice.

Learning outcome
The learner will: 2. Be able to maintain open drainage systems
Assessment criteria
The learner can: 2.1 Assess whether drains are still required 2.2 Maintain drains to the given specification 2.3 Make effective use of the available resources.

Learning outcome
The learner will: 3. Know relevant health and safety legislation and industry good practice
Assessment criteria
The learner can: 3.1 Outline the current health and safety legislation, industry good practice and any additional requirements 3.2 Describe how to use and maintain tools, equipment and Personal Protective Equipment 3.3 Describe how environmental damage can be minimised 3.4 Describe the correct methods for disposing of waste.

Learning outcome
The learner will: 4. Know how to maintain open drainage systems
Assessment criteria
The learner can: 4.1 Outline the emergency planning procedures relevant to the work area 4.2 Describe how to interpret plans and **specification** to maintain drainage system 4.3 Describe how to clear drains and re-dig collapsed sections of drains 4.4 Describe how to maintain drains in a range of soil types and situations 4.5 Describe how to excavate material amongst standing trees 4.6 Explain techniques that can be used for minor de-bogging 4.7 Describe how to recognise specified aspects of the site that should be preserved 4.8 State the implications of **environmental factors**.

Range
Specification depth grade flow rate treatment of excavated material tolerance of specification **Environmental factors** terrain soil texture soil type

structure
season
weather
flow rate of drainage system.

Unit 451 Maintain open drainage systems

Supporting information

Guidance

Simulation will not be acceptable where the unit is included in qualifications which verify competent performance. Please refer to Lantra's Assessment Strategy for further guidance.

Unit 452 Soil amelioration for tree health

UAN:	**K/504/3654**
Level:	Level 2
Credit value:	1
GLH:	8
Relationship to NOS:	This unit is linked to Trees and Timber NOS
Endorsement by a sector or regulatory body:	This unit is endorsed by Lantra, the Sector Skills Council for Land and Environment
Aim:	This unit provides the learner with the knowledge and skills for ameliorating soil under trees. This may involve single trees or groups of trees and may take place in urban or rural conditions. Soil remediation is important on a range of sites including those bring developed. This unit relates to the following application or contexts: Working to the following types of job specification: • Treatment of single trees • Treatment of groups of trees • Improving compacted soil • Improving the soil chemical and biological suitability.

Learning outcome
The learner will: 1. Be able to work safely
Assessment criteria
The learner can: 1.1 Identify the hazards and risks associated with the working area and the proposed work 1.2 Use appropriate tools, equipment and Personal Protective Equipment 1.3 Carry out work in accordance with relevant legislation, industry good practice and promotes health and safety 1.4 Carry out work to minimise environmental damage.

Learning outcome
The learner will: 2. Be able to ameliorate soil for tree health
Assessment criteria
The learner can: 2.1 Assess soil conditions to determine and recommend suitable amelioration techniques 2.2 Advise appropriate person as to the likely outcome of amelioration techniques 2.3 Carry out agreed site amelioration 2.4 Recommend suitable aftercare to prevent the soil condition re-occurring in the future.

Learning outcome
The learner will: 3. Know relevant health and safety legislation and industry good practice
Assessment criteria
The learner can: 3.1 Outline the current health and safety legislation, industry good practice and any additional requirements 3.2 Describe how to use and maintain tools, equipment and Personal Protective Equipment 3.3 Describe how environmental damage can be minimized.

Learning outcome
The learner will: 4. Know how to ameliorate soil for tree health
Assessment criteria
The learner can: 4.1 Describe the signs and symptoms in the tree and/or the soil that would suggest the need for soil amelioration 4.2 Describe the **methods** of soil amelioration and when each would be appropriate 4.3 State the physiological problems of the tree and what the proposed treatment will achieve 4.4 Describe the implications of seasonal and ground conditions for your work.

Range
Methods mulching feeding top dressing

pneumatic de-compaction air spade/air injection mycorrhizal injection.

Unit 452 Soil amelioration for tree health

Supporting information

Guidance

Simulation will not be acceptable where the unit is included in qualifications which verify competent performance. Please refer to Lantra's Assessment Strategy for further guidance.

Unit 453 Take delivery of and store plants and materials

UAN:	**T/504/3656**
Level:	Level 2
Credit value:	2
GLH:	15
Relationship to NOS:	This unit is linked to Horticulture NOS
Endorsement by a sector or regulatory body:	This unit is endorsed by Lantra, the Sector Skills Council for Land and Environment
Aim:	The aim of the unit it to provide the learner with the knowledge and skills required when taking delivery of or storing plants and materials.

Learning outcome
The learner will: 1. Be able to work safely
Assessment criteria
The learner can: 1.1 Carry out work in accordance with relevant legislation, industry good practice and promotes health and safety 1.2 Dispose of waste in line with legislation and codes of practice.

Learning outcome
The learner will: 2. Be able to take delivery and store plants and materials
Assessment criteria
The learner can: 2.1 Check the **condition** of all plants and materials and that they are as detailed in the specification 2.2 Transport plants and materials in a manner which minimises damage and ensures safety 2.3 Store plants and materials in a manner which ensures safety and security 2.4 Record information clearly and accurately.

Range
Condition check the condition of plants and materials where appropriate report any defects in plants and materials to the relevant person

Learning outcome
The learner will: 3. Know relevant health and safety legislation and industry good practice
Assessment criteria
The learner can: 3.1 Outline the current health and safety legislation, industry good practice and any additional requirements 3.2 Describe the correct methods for disposing of waste.

Learning outcome
The learner will: 4. Know how to take delivery or and store plants and materials
Assessment criteria
The learner can: 4.1 State how to, and the importance of assessing the **condition of plants and materials against specification** 4.2 Describe how to recognise healthy plants 4.3 Describe the actions to take if the plants do not meet the specification or are in a poor condition 4.4 State how to handle and store different types of **plants, stock and materials** to maintain them in good condition 4.5 Describe how to safely and securely transport and **store** plants and materials 4.6 Describe the appropriate **records** to be kept and their significance.

Range
Condition of plants and materials against specification • plant species • plant type • plant sizes • plant condition **Plants, stock and materials** Types of plants and stock • bare root • root balled

- containerised

How to avoid plant shock and damage when handling, transporting and storing

Store

- cold storage
- heeling in
- straw bale
- co-extruded bags
- canopy store

Records

Records to include:

- plant passports
- delivery notes
- legislative records.

Unit 453 Take delivery of and store plants and materials

Supporting information

Guidance

Simulation will not be acceptable where the unit is included in qualifications which verify competent performance. Please refer to Lantra's Assessment Strategy for further guidance.

Unit 454 Prepare, drive and operate a skidder

UAN:	**T/504/3687**
Level:	Level 2
Credit value:	5
GLH:	38
Relationship to NOS:	This unit is linked to Trees and Timber NOS
Endorsement by a sector or regulatory body:	This unit is endorsed by Lantra, the Sector Skills Council for Land and Environment
Aim:	The aim and purpose of this unit is to provide the learner with the knowledge and skills to attach / load and detach / unload timber from a skidder The unit is not for ATV's or similar small scale extraction machinery as these are covered other units.

Learning outcome
The learner will: 1. Be able to work safely
Assessment criteria
The learner can: 1.1 Identify the **hazards and risks** associated with the working area and the proposed work 1.2 Use **appropriate tools, equipment and Personal Protective Equipment** 1.3 Carry out work in accordance with relevant legislation, industry good practice and maintains health and safety 1.4 Carry out work to minimise environmental damage.

Range
Hazards and risks Carry out a site risk assessment Identify route Assess the Operational and environmental requirements for the site Plan safe and efficient felling

Tools, equipment and Personal Protective Equipment
Store machinery, fuels and equipment securely on site.

Learning outcome
The learner will: 2. Be able to drive and manoeuvre a skidder
Assessment criteria
The learner can: 2.1 Carry out pre and post start checks to test all operating functions of the equipment 2.2 Drive the machine on site in a safe and effective way 2.3 Manoeuvre the machine on site in a safe and effective way.

Learning outcome
The learner will: 3. Be able to attach and detach timber on skidder
Assessment criteria
The learner can: 3.1 **Position machine** to uplift timber 3.2 Identify **timber for extraction** 3.3 Uplift timber for extraction 3.4 **Use skidder** attachment to bunch products safely and effectively 3.5 Maintain the security of equipment when using skidder attachment.

Range
Position machine Line skidder Grapple skidder **Timber for extraction** according to specification select timber for extraction maintain safe and effective skidding whilst maintaining stability of skidder **Use skidder** Limit size of load to avoid damage to product Position the timber in correct place at landing area for subsequent handling Unload/detach load from the machine safely and effectively.

Learning outcome
The learner will: 4. Know how to prepare, drive and manoeuvre machinery
Assessment criteria
The learner can: 4.1 State the **safety requirements, routine and functional checks** required for machine and operator protection 4.2 Describe **safe driving techniques** that should be used on site 4.3 Describe the **implications** of terrain, ground conditions, season, weather and tree condition on planning access routes and driving the machine.

Range
Safety requirements, routine and functional checks Such as OPS, ROPS and FOPS and other safety devices **Safe driving techniques** To reduce damage to the ground, any remaining standing trees or the wider environment to within specified limits **implications** Describe how to use recovery and de-bogging techniques in a variety of situations.

Learning outcome
The learner will: 5. Know how to attach and detach timber on skidder
Assessment criteria
The learner can: 5.1 Outline the **capabilities and capacity limitations** of the skidder when attaching and loading timber 5.2 Describe how to recognise and select type and species of timber according to specification 5.3 Explain how **produce might be segregated and/or graded** to meet required specification 5.4 Explain how and when to use a logging blade or butt plate to accumulate extracted timber.

Range
Capabilities and capacity limitations State the slope limitations on attaching/loading timber Outline the implications of loading/attaching and unloading/detaching poles butt first and tip first Describe how to use bearers when State how to ensure that limit size of load on skidder does not cause: • damage to product • instability of machine • loss of load • damage to standing trees or the wider environment, including roads and tracks **Produce might be segregated and/or graded** And why.

Learning outcome
The learner will: 6. Know relevant health and safety legislation and industry good practice
Assessment criteria
The learner can: 6.1 Outline the **current health and safety legislation, codes of practice and any additional requirements** 6.2 Describe the types of **records** that may be required for management and legislative purposes.

Range
Current health and safety legislation, codes of practice and any additional requirements Outline additional safeguards that are necessary when timber is accumulated adjacent to roads or tracks **Records** LOLER PUWER and the importance of accurate record keeping.

Unit 454 Prepare, drive and operate a skidder

Supporting information

Guidance

Simulation will not be acceptable where the unit is included in qualifications which verify competent performance. Please refer to Lantra's Assessment Strategy for further guidance.

Unit 455 Operate a grapple loader

UAN:	**T/504/3690**
Level:	Level 2
Credit value:	2
GLH:	15
Relationship to NOS:	This unit is linked to Trees and Timber NOS
Endorsement by a sector or regulatory body:	This unit is endorsed by Lantra, the Sector Skills Council for Land and Environment
Aim:	The aim of this unit is to provide the learner with the knowledge and skills required to operate a grapple loader to load and unload a range of timber products in forestry and woodland situations.

Learning outcome
The learner will: 1. Be able to work safely
Assessment criteria
The learner can: 1.1 Identify the **hazards and risks** associated with the working area and the proposed work 1.2 Use appropriate **tools, equipment and Personal Protective Equipment** 1.3 Carry out work in accordance with relevant legislation, industry good practice and maintains health and safety 1.4 Carry out work to minimise environmental damage.

Range
Hazards and risks Carry out a site risk assessment Identify route Assess the Operational and environmental requirements for the site Plan safe and efficient felling **Tools, equipment and Personal Protective Equipment** Store machinery, fuels and equipment securely on site.

Learning outcome
The learner will: 2. Be able to operate a grapple loader
Assessment criteria
The learner can: 2.1 Position **machine for loading** 2.2 Use machine to **load/feed wood products** 2.3 Grade products to facilitate subsequent handling, processing or uplift for onward dispatch 2.4 Separate products to **facilitate subsequent handling, processing or uplift for onward dispatch** 2.5 **Stack produce** flush to a safe and stable height and condition.

Range
Machine for loading Assess the operational and environmental requirements for the site and plan for the positioning **Load/feed wood products** Maintain the security of the machinery on site and when operating **Facilitate subsequent handling, processing or uplift for onward dispatch** Use the loader to flush wood products to job specification **Stack produce** As per current, relevant industry-recognised guidance.

Learning outcome
The learner will: 3. Know relevant health and safety legislation and industry good practice
Assessment criteria
The learner can: 3.1 Outline the current **health and safety legislation, codes of practice and any additional requirements** 3.2 Explain the importance of good teamwork and communication within the working environment 3.3 Describe the types of **records** that may be required for management and legislative purposes.

Range
Health and safety legislation, codes of practice and any additional requirements Describe how environmental damage can be minimised **Records** LOLER PUWER and the importance of accurate record keeping.

Learning outcome
The learner will: 4. Know how to operate a grapple loader
Assessment criteria
The learner can: 4.1 Explain the capabilities and limitations of the loader when loading and unloading 4.2 Describe different methods of loading and unloading long logs poles or tree lengths 4.3 Summarise safe stacking heights, stability of stacks and signing requirements 4.4 State how to interpret products specifications 4.5 Describe how to segregate and grade produce to meet required specification 4.6 Describe how to recognise types of timber and species from converted produce.

Unit 455 Operate a grapple loader

Supporting information

Guidance

Simulation will not be acceptable where the unit is included in qualifications which verify competent performance. Please refer to Lantra's Assessment Strategy for further guidance.

Unit 456 Monitoring and maintaining health and safety

UAN:	**Y/501/6353**
Level:	Level 2
Credit value:	3
GLH:	23
Relationship to NOS:	This unit is linked to Trees and Timber NOS
Endorsement by a sector or regulatory body:	This unit is endorsed by Lantra, the Sector Skills Council for Land and Environment

Learning outcome
The learner will: 1. Be able to maintain health, safety and security in the workplace
Assessment criteria
The learner can: 1.1 Identify health and safety risks in relation to the workplace covering the following: • people • equipment and materials • the work area 1.2 Carry out specified measures to control risks and keep the appropriate people fully informed. 1.3 Seek guidance on measures to control unfamiliar risks arising from non-routine work situations 1.4 Relay health and safety information to others in a manner likely to be understood 1.5 Take the appropriate action without delay as soon as an emergency is suspected 1.6 Dispose of hazardous and non-hazardous waste safely and appropriately 1.7 Maintain the security of the workplace in accordance with organisational requirements.

Learning outcome
The learner will: 2. Be able to use equipment and materials safely
Assessment criteria
The learner can: 2.1 Use equipment and materials in accordance with manufacturers' instructions and any organisational training 2.2 Transport any equipment and materials safely and store them correctly at an approved location when not in use.

Learning outcome
The learner will: 3. Know the systems and procedures for maintaining health, safety and security
Assessment criteria
The learner can: 3.1 State the organisational requirements with regard to ensuring the security of the workplace 3.2 Describe the roles and responsibilities for health and safety in the workplace under organisational policy and legislation 3.3 State why inadequate measures to control risks should be reported. 3.4 Describe procedures for different types of emergencies appropriate to the relevant industry 3.5 Explain how the procedures for specific emergencies may be affected by location 3.6 Identify different types of fire extinguishers and their use, relevant to the work area 3.7 Describe the different forms of waste and appropriate methods of disposal 3.8 Explain the relationship between security and safety within the workplace 3.9 List any specific risks relevant to child safety in the workplace 3.10 State how and why accidents should be reported.

Learning outcome
The learner will: 4. Understand why equipment is transported and stored safely
Assessment criteria
The learner can: 4.1 Explain how to transport and store equipment and materials safely.

Learning outcome
The learner will: 5. Know the reason for following manufacturers' guidance
Assessment criteria
The learner can: 5.1 State the importance of following manufacturers' and organisational instructions and the potential consequences and risks of not doing so.

Learning outcome
The learner will: 6. Maintain good standards of heath and safety for self and for others
Assessment criteria
The learner can: 6.1 Supply the necessary personal medical information in accordance with organisational requirements 6.2 Use and care for the correct personal protective equipment and clothing necessary for work 6.3 Use approved methods of handling when moving and lifting items 6.4 Use the appropriate personal and workplace hygiene at all times 6.5 Provide accurate information about location so that contact can be made if necessary 6.6 Work in a way which minimises risk to self, others and the environment 6.7 Take appropriate action where incidents affect the health and safety of workers 6.8 Report incidents without delay and complete records accurately, legibly and completely.

Learning outcome
The learner will: 7. Understand how to maintain the health and safety of self and others
Assessment criteria
The learner can: 7.1 Explain the roles in maintaining health and safety 7.2 Explain the reasons for leaving information about location when working in isolation or in remote locations 7.3 Explain why accidents should be reported without delay and recorded in the appropriate document

7.4	Explain the methods of minimising environmental damage during work.

Learning outcome
The learner will: 8. Know the safe lifting techniques
Assessment criteria
The learner can: 8.1 Describe the safe methods for moving and lifting items.

Learning outcome
The learner will: 9. Know how to maintain health and safety
Assessment criteria
The learner can: 9.1 Describe the reasons for maintaining good personal and workplace hygiene 9.2 State own ability to deal with health and safety emergencies (eg not carrying out actions beyond capabilities) 9.3 Describe how to administer basic emergency first aid procedures 9.4 Identify the types of personal protective equipment and clothing needed for work and how they must be used, cleaned, stored, inspected and replaced.

Unit 456 Monitoring and maintaining health and safety

Supporting information

Guidance

Simulation will not be acceptable where the unit is included in qualifications which verify competent performance. Please refer to Lantra's Assessment Strategy for further guidance.

Unit 457 Control vertebrate pests and predators using traps

UAN:	**Y/502/3965**
Level:	Level 2
Credit value:	6
GLH:	45
Relationship to NOS:	This unit is linked to Environmental Conservation NOS
Endorsement by a sector or regulatory body:	This unit is endorsed by Lantra, the Sector Skills Council for Land and Environment

Learning outcome
The learner will: 1. Be able to determine the need for vertebrate pests and predator control
Assessment criteria
The learner can: 1.1 Interpret signs to determine vertebrate pest and predator activity 1.2 Modify monitoring activities to take account of seasonal variations, prevailing weather conditions and habitat 1.3 Develop a trapping regime to control vertebrate pests and predators population.

Learning outcome
The learner will: 2. Be able to trap vertebrate pests and predators
Assessment criteria
The learner can: 2.1 Select a trapping method appropriate to the vertebrate pests and predators species 2.2 Ensure the good working order of selected traps 2.3 Establish traps in suitable locations to effectively catch target vertebrate pests and predators species and to minimise impact on non-target species 2.4 Monitor and maintain traps according to legal requirements 2.5 Approach trapped vertebrate pests and predators in a manner which maintains personal safety 2.6 Despatch trapped vertebrate pests and predators humanely

2.7	Release non-target species back into the wild in a manner which promotes their health and well-being and is consistent with legal requirements.

Learning outcome
The learner will: 3. Be able to work safely and minimise environmental damage
Assessment criteria
The learner can: 3.1 Work in a way which maintains health and safety and is consistent with relevant legislation, codes of practice and any additional requirements 3.2 Carry out work in a manner which minimises environmental damage 3.3 Dispose of waste and mortalities responsibly according to legal requirements.

Learning outcome
The learner will: 4. Be able to maintain accurate records
Assessment criteria
The learner can: 4.1 Maintain accurate trapping records.

Learning outcome
The learner will: 5. Know how to determine the need for vertebrate pests and predator control
Assessment criteria
The learner can: 5.1 Identify common mammal and bird pests and predators species 5.2 Describe the significance and potential effects of vertebrate pests and predators 5.3 Describe the behavioural characteristics of vertebrate pests and predators and how these can influence the control method selected 5.4 Describe the effects of the seasons and weather conditions on monitoring activities 5.5 Describe the effects of vertebrate pests and predators on animal/plant populations 5.6 Explain how to interpret the following signs to determine pest and predator activity: • direct sightings

- runs
- footprints
- damage to habitat
- dead animals
- kills
- sounds
- smells
- droppings

5.7 Describe the non-target species in the trapping area and how to recognise their presence

5.8 Explain the detail of a trapping regime including:

- the number of traps to be used
- the type of traps to be used
- the general location for the traps.

Learning outcome
The learner will: 6. Know how to trap vertebrate pests and predators
Assessment criteria
The learner can: 6.1 Outline the legal requirements and codes of practice controlling the use of traps and snares 6.2 Identify non-target species 6.3 Explain how to limit the impact of trapping on non-target species 6.4 Explain trapping methods and their correct implementation including positioning 6.5 Describe how the following trap types function: • spring traps • cage traps • snares 6.6 Explain why trapping methods need to be appropriate to the vertebrate pests, the characteristics of the site and location 6.7 Outline the legal requirements controlling the use of traps and snares 6.8 Describe the behavioural characteristics of vertebrate pests and predators and how these can assist the trapping process 6.9 Explain how to humanely despatch different vertebrate pests and predators species 6.10 Describe how to dispose of despatched vertebrate pests and predators safely 6.11 Explain the methods used to release different non-target species safely in a way which promotes their health and well-being 6.12 Explain how to identify suitability of chosen trap 6.13 Explain how to maintain the condition of the live decoy, where appropriate

6.14 Explain how to check and maintain the function of traps and snares.

Learning outcome
The learner will: 7. Know relevant health and safety legislation and environmental good practice
Assessment criteria
The learner can: 7.1 Outline the current health and safety legislation, codes of practice and any additional requirements associated with trapping activities 7.2 Outline the individual's specific responsibilities under environmental and conservation legislation in relation to monitoring and controlling pests and predators 7.3 Explain how to minimise the dangers of disease or personal injury caused by handling trapped animals 7.4 Describe how to safely dispose of vertebrate pests and predators according to legal requirements.

Learning outcome
The learner will: 8. Know how to maintain accurate records
Assessment criteria
The learner can: 8.1 Explain the reason for keeping accurate, up to date vertebrate pest and predator records.

Unit 457 Control vertebrate pests and predators using traps

Supporting information

Guidance

Simulation will not be acceptable where the unit is included in qualifications which verify competent performance. Please refer to Lantra's Assessment Strategy for further guidance.

Unit 458 Produce wood fuel in a woodland or forest

UAN:	**Y/504/3665**
Level:	Level 2
Credit value:	3
GLH:	23
Relationship to NOS:	This unit is linked to Trees and Timber NOS
Endorsement by a sector or regulatory body:	This unit is endorsed by Lantra, the Sector Skills Council for Land and Environment
Aim:	The aim and purpose of this unit is to provide the learner with the knowledge and skills required to produce wood fuel in a woodland or forest area

Learning outcome
The learner will: 1. Be able to work safely
Assessment criteria
The learner can: 1.1 Identify the **hazards and risks** associated with the working area and the proposed work 1.2 Use appropriate tools, equipment and personal protective equipment (PPE) 1.3 Carry out work in accordance with relevant legislation, industry good practice and maintains health and safety 1.4 Carry out work to minimise environmental damage 1.5 Dispose of waste in line with legislation and industry good practice.

Range
Hazards and risks Complete an appropriate risk assessment

Learning outcome
The learner will: 2. Be able to produce wood fuel from a woodland or forest
Assessment criteria
The learner can: 2.1 Identify suitable wood fuels to meet specifications 2.2 **Cut wood** to specification 2.3 Prepare wood to specification 2.4 Stack wood fuel safely for seasoning 2.5 Store wood fuel for seasoning appropriate to the production method 2.6 **Prepare wood fuel products** to meet market requirements.

Range
Cut wood Including processing **Prepare wood fuel products** Wood fuel products: • kindling • split logs • wood chip • faggots.

Learning outcome
The learner will: 3. Know relevant health and safety legislation and industry good practice
Assessment criteria
The learner can: 3.1 Outline the current health and safety legislation, industry good practice and any additional requirements 3.2 Describe how to use and maintain tools, equipment and personal protective equipment (PPE) 3.3 Describe how environmental damage can be minimised 3.4 Describe the correct methods for disposing of waste.

Learning outcome
The learner will: 4. Know how to produce wood fuel in a woodland or forest
Assessment criteria
The learner can: 4.1 Describe different wood fuel markets and products 4.2 Explain the burning and processing qualities of different tree species 4.3 Outline storage methods appropriate for different wood fuel products 4.4 Explain how seasonality can affect the moisture content of different species and the production of wood fuel 4.5 State how storage can affect moisture content 4.6 State the significance of moisture content on the quality of the product 4.7 Explain the wood burning process and devices for heat generation 4.8 Outline the effect raw material will have on particle size and ash content 4.9 Explain relevance of seasoning timber and the level required for different fuel wood products.

Unit 458 Produce wood fuel in a woodland or forest

Supporting information

Guidance

Simulation will not be acceptable where the unit is included in qualifications which verify competent performance. Please refer to Lantra's Assessment Strategy for further guidance.

Unit 459 Prepare and operate machinery to fell trees

UAN:	**Y/504/3679**
Level:	Level 2
Credit value:	5
GLH:	38
Relationship to NOS:	This unit is linked to Trees and Timber NOS
Endorsement by a sector or regulatory body:	This unit is endorsed by Lantra, the Sector Skills Council for Land and Environment
Aim:	The aim of this unit is to provide the learner with the knowledge and skills required to prepare, manoeuvre and operate machinery to fell trees in a range of woodland and forestry situations.

Learning outcome
The learner will: 1. Be able to work safely
Assessment criteria
The learner can: 1.1 Identify the **hazards and risks** associated with the working area and the proposed work 1.2 Use appropriate **tools, equipment and Personal Protective Equipment** 1.3 Carry out work specification in accordance with relevant legislation, industry good practice and maintains health and safety 1.4 Carry out work to minimise environmental damage.

Range
Hazards and risks Carry out a site risk assessment Identify route Assess the Operational and environmental requirements for the site Plan safe and efficient felling **Tools, equipment and Personal Protective Equipment**

Store machinery, fuels and equipment securely on site.

Learning outcome
The learner will: 2. Be able to select and prepare machinery
Assessment criteria
The learner can: 2.1 Carry out **pre and post-start checks** to test all operating functions of the equipment 2.2 Plan **work and the work site** to maintain safe working areas to operate the timber processor.

Range
Pre and post-start checks Including pre start visual checks to base machine Safety devices, prior to harvesting timber, including fire control equipment **Work and the work site** With minimal damage to the worksite, standing trees, tracks, roads, drains and the wider environment in accordance with the site and job specification. Utilise additional safeguards such as barriers, banksman and/or additional signs when operating machine and comply with safety distances from e.g. adjacent roads and tracks or where others are working.

Learning outcome
The learner will: 3. Be able to drive and manoeuvre machinery
Assessment criteria
The learner can: 3.1 Drive the machine on site and in a **safe and effective way** 3.2 Manoeuvre the machine on site and in a safe and effective way.

Range
Safe and effective way Create and maintain brash mats with small trees, tops etc. to reduce ground damage and aid flotation to both tree felling and subsequent operations.

Learning outcome
The learner will: 4. Be able to fell trees
Assessment criteria
The learner can: 4.1 Identify trees in accordance with the job specification 4.2 **Fell trees** in accordance with the job specification 4.3 **Use machinery** in accordance with relevant legislation and manufacturer's instructions.

Range
Fell trees Safely and effectively Ensure that any damage to the remaining standing trees or to the environment is minimal and within specified limits **Use machinery** Maintain machinery in accordance with relevant legislation and manufacturer's instructions Store machinery securely on site

Learning outcome
The learner will: 5. Know how to prepare, drive and manoeuvre machinery
Assessment criteria
The learner can: 5.1 State the **safety requirements, routine and functional checks** required for machine and operator protection 5.2 Describe **safe driving techniques** that should be used on site 5.3 Explain the **implications** of terrain, ground conditions, season, weather and tree condition on planning access routes and driving the machine.

Range

Safety requirements, routine and functional checks

Such as OPS, ROPS and FOPS and other safety devices

The need for carrying out routine operator checks and basic maintenance

Identify the function of all operating controls for drive unit and harvesting equipment

Describe how to identify damaged and ware to harvesting head blades/knives

Planning and setting up re-fuelling areas.

Safe driving techniques

To reduce damage to the ground, any remaining standing trees or the wider environment to within specified limits

Implications

Describe how to use recovery and de-bogging techniques in a variety of situations.

Learning outcome
The learner will: 6. Know how to fell trees
Assessment criteria
The learner can: 6.1 Describe how to recognise trees to be felled to meet the job specification 6.2 Describe how to **assess trees** to determine felling method 6.3 Explain how to **carry out windblow clearance** and other difficult and dangerous operations.

Range
Assess trees Single/ double cuts Stump height buttressing Capacity of head **Carry out windblow clearance** Including felling hung-up trees and dealing with shattered butts diseased, rotten dead or other malformed trees safely, as appropriate including oversized, buried or inaccessible butts.

Learning outcome
The learner will: 7. Know relevant health and safety legislation and industry good practice

Assessment criteria
The learner can: 7.1 Outline current **health and safety legislation, codes of practice and any additional requirements** 7.2 Explain why it is **important to maintain good communication and team work** within the working environment 7.3 Describe the types of **records** that may be required for management and legislative requirements.

Range
Health and safety legislation, codes of practice and any additional requirements Discuss current guidelines on machinery operation, risk zones and safety clearance from overhead cables and what to do in the event of contact with power lines Prepare for crossing water courses Describe the implication of working at height in relation to operator checks and maintenance Describe causes of, and how to prevent potential pollution and environmental damage when preparing and using loader - fed processor Describe how to minimise any pollution incident including the pollution control equipment that should be available on site and to whom any incidents should be reported **important to maintain good communication and team work** Team include: chainsaw operators Timber haulier Colleagues on site **Records** LOLER PUWER and the importance of accurate record keeping

Unit 459 Prepare and operate machinery to fell trees

Supporting information

Guidance

Simulation will not be acceptable where the unit is included in qualifications which verify competent performance. Please refer to Lantra's Assessment Strategy for further guidance.

Unit 460 Construct, maintain and repair stiles

UAN:	**Y/600/0826**
Level:	Level 2
Credit value:	4
GLH:	30
Relationship to NOS:	This unit is linked to Environmental Conservation
Endorsement by a sector or regulatory body:	This unit is endorsed by Lantra, the Sector Skills Council for Land and Environment

Learning outcome
The learner will: 1. Construct, maintain and repair stiles
Assessment criteria
The learner can: 1.1 Prepare the site appropriately, and in a way which minimises the effect on the surrounding environment 1.2 Construct, maintain or repair the stile to specification, and finish it in a way which fits in with the surrounding environment 1.3 Take appropriate action without delay where problems occur during work including: • accidental damage • difficulties in meeting the specification disturbance to wildlife or environment 1.4 Identify and report potential improvements to the work specification 1.5 Make the site good when work is finished, and dispose of any waste or unwanted materials correctly and safely.

Learning outcome
The learner will: 2. Be able to select, use and maintain equipment for the construction, maintenance and repair of stiles
Assessment criteria
The learner can: 2.1 Select appropriate equipment and materials for this area of work

2.2	Use equipment according to instructions
2.3	Prepare, maintain and store equipment in a safe and effective working condition.

Learning outcome
The learner will:
3. Be able to work safely and minimise environmental damage
Assessment criteria
The learner can:
3.1 Work in a way which maintains health and safety and is consistent with current legislation, codes of practice and any additional requirements
3.2 Carry out work in a manner which minimises environmental damage
3.3 Dispose of waste safely and correctly.

Learning outcome
The learner will:
4. Know how to construct, maintain and repair stiles
Assessment criteria
The learner can:
4.1 Describe suitable methods for preparing the site
4.2 Explain the proposed use of the stile and how this relates to the specification and operations
4.3 Outline how to interpret and use relevant specifications covering: • setting out and location • materials and resources • timing and timescales • working methods • suitability to expected use and local tradition
4.4 Outline the context within which the stile is set, and how this relates to the specification
4.5 Explain the methods for constructing, maintaining and repairing stiles
4.6 Describe the problems which may occur during operations and how these should be dealt with covering: • accidental damage • difficulties in meeting the specification disturbance to wildlife or environment
4.7 Describe the environmental value of work sites, the potential effects of work on the environment and how to control these
4.8 Describe the required condition of the site on completion of operations.

Learning outcome
The learner will: 5. Know the current health and safety legislation and environmental good practice
Assessment criteria
The learner can: 5.1 Outline the current health and safety legislation, codes of practice and any additional requirements, which apply to this area of work. 5.2 Describe how environmental damage can be minimised 5.3 Describe the correct methods for disposing of waste. 5.4 Explain how to identify hazards and assess risks 5.5 Explain how to interpret risk assessments.

Unit 460 Construct, maintain and repair stiles

Supporting information

Guidance

Simulation will not be acceptable where the unit is included in qualifications which verify competent performance. Please refer to Lantra's Assessment Strategy for further guidance.

Unit 461 Carry out non chemical post-planting protection and maintenance

UAN:	**Y/601/0255**
Level:	Level 2
Credit value:	2
GLH:	15
Relationship to NOS:	This unit is linked to Horticulture NOS
Endorsement by a sector or regulatory body:	This unit is endorsed by Lantra, the Sector Skills Council for Land and Environment

Learning outcome
The learner will: 1. Be able to carry out non chemical post planting protection
Assessment criteria
The learner can: 1.1 Check all materials are those specified in the job specification and in a suitable condition 1.2 Transport and store materials in a manner which minimises damage and ensures safety and security 1.3 Carry out protection and maintenance in line with the job specification avoiding damage to the planted trees and to the environment.

Learning outcome
The learner will: 2. Be able to work safely and minimise environmental damage
Assessment criteria
The learner can: 2.1 Work in a way which maintains health and safety and is consistent with relevant legislation, codes of practice and any additional requirements 2.2 Dispose of surplus was and/or waste safely and correctly.

Learning outcome
The learner will: 3. Be able to select, use and maintain relevant equipment
Assessment criteria
The learner can: 3.1 Select and use appropriate equipment for this area of work 3.2 Prepare, maintain and store equipment in a safe and effective working condition.

Learning outcome
The learner will: 4. Know how to carry out non chemical plant protection
Assessment criteria
The learner can: 4.1 Describe how to safely and securely transport and store materials 4.2 State how to report any defects or deficiencies in materials and to whom 4.3 Describe the range of protection and maintenance methods and how they are used 4.4 Describe the range of damage that can be caused along with the damaging agents and how to protect against them.

Learning outcome
The learner will: 5. Know relevant health and safety legislation and environmental good practice
Assessment criteria
The learner can: 5.1 Outline the current health and safety legislation, codes of practice and any additional requirements 5.2 Describe how environmental damage can be minimised 5.3 Describe the correct methods for disposing of surplus materials and/or waste.

Learning outcome
The learner will: 6. Know the types of equipment required and how to maintain them
Assessment criteria
The learner can:

6.1	Describe the equipment which will be required for the activity and the methods of maintaining the range of equipment.

Unit 461 Carry out non chemical post-planting protection and maintenance

Supporting information

Guidance

Simulation will not be acceptable where the unit is included in qualifications which verify competent performance. Please refer to Lantra's Assessment Strategy for further guidance.

Unit 462 Principles of forest and moorland fire fighting

UAN:	**Y/601/0269**
Level:	Level 2
Credit value:	2
GLH:	15
Relationship to NOS:	This unit is linked to Trees and Timber NOS
Endorsement by a sector or regulatory body:	This unit is endorsed by Lantra, the Sector Skills Council for Land and Environment

Learning outcome
The learner will: 1. Know the principles of forest and moorland fire fighting
Assessment criteria
The learner can: 1.1 Describe the personal protective equipment required for wildfire suppression operators 1.2 Summarise the forest or estate fire plan, fire maps, symbols and other company working practices and industry good practice 1.3 Describe the role of the emergency services and chain of command 1.4 Describe the elements that are required for fire to exist 1.5 Describe the phases of combustion (pre-heating, gas combustion and charcoal combustion) 1.6 Outline how weather, topography and fuels affect fire behaviour, including rate of spread and fire intensity 1.7 Describe fuel types and loads and the characteristics of grass, heather, forests and peat fires 1.8 Describe the potential impact of wildfires and fire suppression activities on the environment 1.9 Describe the purpose and value of firebreaks 1.10 Describe when it is appropriate to extinguish fires and the suitable tactics, tools and equipment to use.

Learning outcome
The learner will: 2. Know how to support forest and moorland fire fighting
Assessment criteria
The learner can: 2.1 Outline how to assess and report on key fire information 2.2 Summarise the three main fire suppression strategies: direct, indirect and flanking attack 2.3 Describe the phases of fire suppression operations covering: knockdown, containment, mop up and patrol.

Learning outcome
The learner will: 3. Know relevant health and safety legislation and environmental good practice
Assessment criteria
The learner can: 3.1 Outline the current health and safety legislation, codes of practice and any additional requirements.

Unit 462 Principles of forest and moorland fire fighting

Supporting information

Guidance

Simulation will not be acceptable where the unit is included in qualifications which verify competent performance. Please refer to Lantra's Assessment Strategy for further guidance.

Unit 463 Construct, maintain and repair post and wire fence boundaries

UAN:	**A/600/0818**
Level:	Level 2
Credit value:	4
GLH:	30
Relationship to NOS:	This unit is linked to Environmental Conservation NOS
Endorsement by a sector or regulatory body:	This unit is endorsed by Lantra, the Sector Skills Council for Land and Environment

Learning outcome

The learner will:

1. Construct, maintain and repair post and wire fence boundaries

Assessment criteria

The learner can:

1.1 Prepare the site appropriately, and in a way which minimises the effect on the surrounding environment

1.2 Identify the proposed line for the boundary from the specification and any special considerations which relate to the line including:

- health and safety
- environmental impact
- access

1.3 Construct, maintain or repair the boundaries to specification, and finish it in a way which fits in with the surrounding environment

1.4 Take appropriate action without delay where problems occur during work including:

- accidental damage
- difficulties in meeting the specification disturbance to wildlife or environment

1.5 Handle, manoeuvre and transport materials safely

1.6 Identify and report potential improvements to the work specification

1.7 Make the site good when work is finished, and dispose of any waste or unwanted materials correctly and safely.

Learning outcome
The learner will: 2. Be able to select, use and maintain equipment for the construction, maintenance and repair of post and wire fence boundaries
Assessment criteria
The learner can: 2.1 Select appropriate equipment and materials for this area of work 2.2 Use equipment according to instructions 2.3 Prepare, maintain and store equipment in a safe and effective working condition.

Learning outcome
The learner will: 3. Be able to work safely and minimise environmental damage
Assessment criteria
The learner can: 3.1 Work in a way which maintains health and safety and is consistent with current legislation, codes of practice and any additional requirements 3.2 Carry out work in a manner which minimises environmental damage 3.3 Dispose of waste safely and correctly.

Learning outcome
The learner will: 4. Know how to construct, maintain and repair pot and wire fence boundaries
Assessment criteria
The learner can: 4.1 Describe suitable methods for preparing the site 4.2 Outline how to interpret and use relevant specifications covering: • setting out and location • materials and resources • timing and timescales • working methods • suitability to expected use and local tradition 4.3 Outline the context within which the boundary is set, and how this relates to the specification 4.4 Describe the problems which may occur during operations and how these should be dealt with covering: • accidental damage • difficulties in meeting the specification disturbance to wildlife or environment 4.5 Describe the environmental value of work sites, the potential effects of work on the environment and how to control these

4.6	Describe the reasons for leaving the site in the required condition on completion of operations
4.7	Describe the reasons for leaving the site in the required condition on completion of operations.

Learning outcome
The learner will:
5. Know the current health and safety legislation and environmental good practice
Assessment criteria
The learner can:
5.1 Outline the current health and safety legislation, codes of practice and any additional requirements, which apply to this area of work
5.2 Describe how environmental damage can be minimised
5.3 Describe the correct methods for disposing of waste
5.4 Explain how to identify hazards and assess risks
5.5 Explain how to interpret risk assessments.

Learning outcome
The learner will:
6. Know the types of equipment required and how to maintain them
Assessment criteria
The learner can:
6.1 Describe the equipment which will be necessary for the construction, maintenance and repair of post and wire fence boundaries
6.2 Describe methods of maintaining the equipment in a fit state for use.

Unit 463 Construct, maintain and repair post and wire fence boundaries

Supporting information

Guidance

Simulation will not be acceptable where the unit is included in qualifications which verify competent performance. Please refer to Lantra's Assessment Strategy for further guidance.

Unit 464 Construct, maintain and repair post and rail boundaries

UAN:	**T/600/0817**
Level:	Level 2
Credit value:	4
GLH:	30
Relationship to NOS:	This unit is linked to Environmental Conservation NOS
Endorsement by a sector or regulatory body:	This unit is endorsed by Lantra, the Sector Skills Council for Land and Environment

Learning outcome

The learner will:

1. Construct, maintain and repair post and rail boundaries

Assessment criteria

The learner can:

1.1 Prepare the site appropriately, and in a way which minimises the effect on the surrounding environment

1.2 Identify the proposed line for the boundary from the specification and any special considerations which relate to the line including:

- health and safety
- environmental impact
- access

1.3 Construct, maintain or repair the boundaries to specification, and finish it in a way which fits in with the surrounding environment

1.4 Take appropriate action without delay where problems occur during work including:

- accidental damage
- difficulties in meeting the specification disturbance to wildlife or environment

1.5 Handle, manoeuvre and transport materials safely

1.6 Identify and report potential improvements to the work specification

1.7 Make the site good when work is finished, and dispose of any waste or unwanted materials correctly and safely.

Learning outcome
The learner will: 2. Be able to select, use and maintain equipment for the construction, maintenance and repair of post and rail fence boundaries
Assessment criteria
The learner can: 2.1 Select appropriate equipment and materials for this area of work 2.2 Use equipment according to instructions 2.3 Prepare, maintain and store equipment in a safe and effective working condition.

Learning outcome
The learner will: 3. Be able to work safely and minimise environmental damage
Assessment criteria
The learner can: 3.1 Work in a way which maintains health and safety and is consistent with current legislation, codes of practice and any additional requirements 3.2 Carry out work in a manner which minimises environmental damage 3.3 Dispose of waste safely and correctly.

Learning outcome
The learner will: 4. Know how to construct, maintain and repair post and rail fence boundaries
Assessment criteria
The learner can: 4.1 Describe suitable methods for preparing the site 4.2 Outline how to interpret and use relevant specifications covering: • setting out and location • materials and resources • timing and timescales • working methods • suitability to expected use and local tradition 4.3 Outline the context within which the boundary is set, and how this relates to the specification 4.4 Describe the problems which may occur during operations and how these should be dealt with covering: • accidental damage • difficulties in meeting the specification disturbance to wildlife or environment

4.5 Describe the environmental value of work sites, the potential effects of work on the environment and how to control these 4.6 Describe the reasons for leaving the site in the required condition on completion of operations.

Learning outcome
The learner will: 5. Know the current health and safety legislation and environmental good practice
Assessment criteria
The learner can: 5.1 Outline the current health and safety legislation, codes of practice and any additional requirements, which apply to this area of work. 5.2 Describe how environmental damage can be minimised 5.3 Describe the correct methods for disposing of waste. 5.4 Explain how to identify hazards and assess risks 5.5 Explain how to interpret risk assessments.

Learning outcome
The learner will: 6. Know the types of equipment required and how to maintain them
Assessment criteria
The learner can: 6.1 Describe the equipment which will be necessary for the construction, maintenance and repair of post and rail fence boundaries 6.2 Describe methods of maintaining the equipment in a fit state for use.

Unit 464 Construct, maintain and repair post and rail boundaries

Supporting information

Guidance

Simulation will not be acceptable where the unit is included in qualifications which verify competent performance. Please refer to Lantra's Assessment Strategy for further guidance.

Unit 465 Construct, maintain and repair banks

UAN:	**K/600/0815**
Level:	Level 2
Credit value:	4
GLH:	30
Relationship to NOS:	This unit is linked to Environmental Conservation NOS
Endorsement by a sector or regulatory body:	This unit is endorsed by Lantra, the Sector Skills Council for Land and Environment

Learning outcome
The learner will: 1. Construct, maintain and repair banks
Assessment criteria
The learner can: 1.1 Prepare the site appropriately, and in a way which minimises the effect on the surrounding environment 1.2 Identify the proposed line for the boundary from the specification and any special considerations which relate to the line including: • health and safety • environmental impact • access 1.3 Construct, maintain or repair the boundaries to specification, and finish it in a way which fits in with the surrounding environment 1.4 Take appropriate action without delay where problems occur during work including: • accidental damage • difficulties in meeting the specification disturbance to wildlife or environment 1.5 Handle, manoeuvre and transport materials safely 1.6 Identify and report potential improvements to the work specification 1.7 Make the site good when work is finished, and dispose of any waste or unwanted materials correctly and safely.

Learning outcome
The learner will: 2. Be able to select, use and maintain equipment for the construction, maintenance and repair of banks
Assessment criteria
The learner can: 2.1 Select appropriate equipment and materials for this area of work 2.2 Use equipment according to instructions 2.3 Prepare, maintain and store equipment in a safe and effective working condition.

Learning outcome
The learner will: 3. Be able to work safely and minimise environmental damage
Assessment criteria
The learner can: 3.1 Work in a way which maintains health and safety and is consistent with current legislation, codes of practice and any additional requirements 3.2 Carry out work in a manner which minimises environmental damage 3.3 Dispose of waste safely and correctly.

Learning outcome
The learner will: 4. Know how to construct, maintain and repair banks
Assessment criteria
The learner can: 4.1 Describe suitable methods for preparing the site 4.2 Outline how to interpret and use relevant specifications covering: • setting out and location • materials and resources • timing and timescales • working methods • suitability to expected use and local tradition 4.3 Outline the context within which the boundary is set, and how this relates to the specification 4.4 Describe the problems which may occur during operations and how these should be dealt with covering: • accidental damage

- difficulties in meeting the specification disturbance to wildlife or environment

4.5 Describe the environmental value of work sites, the potential effects of work on the environment and how to control these

4.6 Describe the reasons for leaving the site in the required condition on completion of operations.

Learning outcome
The learner will: 5. Know the current health and safety legislation and environmental good practice
Assessment criteria
The learner can: 5.1 Outline the current health and safety legislation, codes of practice and any additional requirements, which apply to this area of work. 5.2 Describe how environmental damage can be minimised 5.3 Describe the correct methods for disposing of waste. 5.4 Explain how to identify hazards and assess risks 5.5 Explain how to interpret risk assessments.

Learning outcome
The learner will: 6. Know the types of equipment required and how to maintain them
Assessment criteria
The learner can: 6.1 Describe the equipment which will be necessary for the construction, maintenance and repair of banks 6.2 Describe methods of maintaining the equipment in a fit state for use.

Unit 465 Construct, maintain and repair banks

Supporting information

Guidance

Simulation will not be acceptable where the unit is included in qualifications which verify competent performance. Please refer to Lantra's Assessment Strategy for further guidance.

Unit 466 Construct, maintain and repair access gates

UAN:	**L/600/0824**
Level:	Level 2
Credit value:	4
GLH:	30
Relationship to NOS:	This unit is linked to Environmental Conservation NOS
Endorsement by a sector or regulatory body:	This unit is endorsed by Lantra, the Sector Skills Council for Land and Environment

Learning outcome
The learner will: 1. Construct, maintain and repair access gates
Assessment criteria
The learner can: 1.1 Prepare the site appropriately, and in a way which minimises the effect on the surrounding environment 1.2 Construct, maintain or repair the access point to specification, and finish it in a way which fits in with the surrounding environment 1.3 Take appropriate action without delay where problems occur during work including: • accidental damage • difficulties in meeting the specification disturbance to wildlife or environment 1.4 Identify and report potential improvements to the work specification 1.5 Make the site good when work is finished, and dispose of any waste or unwanted materials correctly and safely.

Learning outcome
The learner will: 2. Be able to select, use and maintain equipment for the construction, maintenance and repair of access gates
Assessment criteria
The learner can: 2.1 Select appropriate equipment and materials for this area of work

2.2	Use equipment according to instructions
2.3	Prepare, maintain and store equipment in a safe and effective working condition.

Learning outcome
The learner will:
3. Be able to work safely and minimise environmental damage
Assessment criteria
The learner can:
3.1 Work in a way which maintains health and safety and is consistent with current legislation, codes of practice and any additional requirements
3.2 Carry out work in a manner which minimises environmental damage
3.3 Dispose of waste safely and correctly.

Learning outcome
The learner will:
4. Know how to construct, maintain and repair access gates
Assessment criteria
The learner can:
4.1 Describe suitable methods for preparing the site
4.2 Explain the proposed use of the access point and how this relates to the specification and operations
4.3 Outline how to interpret and use relevant specifications covering: • setting out and location • materials and resources • timing and timescales • working methods • suitability to expected use and local tradition
4.4 Outline the context within which the access gate is set, and how this relates to the specification
4.5 Explain the methods for constructing, maintaining and repairing access gates
4.6 Describe the problems which may occur during operations and how these should be dealt with covering: • accidental damage • difficulties in meeting the specification disturbance to wildlife or environment
4.7 Describe the environmental value of work sites, the potential effects of work on the environment and how to control these
4.8 Describe the required condition of the site on completion of operations.

Learning outcome
The learner will: 5. Know the current health and safety legislation and environmental good practice
Assessment criteria
The learner can: 5.1 Outline the current health and safety legislation, codes of practice and any additional requirements, which apply to this area of work. 5.2 Describe how environmental damage can be minimised 5.3 Describe the correct methods for disposing of waste. 5.4 Explain how to identify hazards and assess risks 5.5 Explain how to interpret risk assessments.

Learning outcome
The learner will: 6. Know the types of equipment required and how to maintain them
Assessment criteria
The learner can: 6.1 Describe the equipment which will be necessary for the construction, maintenance and repair of access gates 6.2 Describe methods of maintaining the equipment in a fit state for use.

Unit 466 Construct, maintain and repair access gates

Supporting information

Guidance

Simulation will not be acceptable where the unit is included in qualifications which verify competent performance. Please refer to Lantra's Assessment Strategy for further guidance.

Unit 467 Construct, maintain and repair reinforced paths

UAN:	**A/502/3215**
Level:	Level 2
Credit value:	4
GLH:	30
Relationship to NOS:	This unit is linked to Environmental Conservation NOS
Endorsement by a sector or regulatory body:	This unit is endorsed by Lantra, the Sector Skills Council for Land and Environment

Learning outcome
The learner will: 1. Be able to construct, maintain and repair reinforced paths
Assessment criteria
The learner can: 1.1 Identify the proposed line for the reinforced path and the special considerations 1.2 Take steps to ensure that other site users are not put at risk by work by: • providing information (signs etc.) • re-routing access away from unsafe areas • speaking to others on site 1.3 Provide drainage to specification to suit the site's needs and its expected levels of use 1.4 Construct, maintain or repair the reinforced path to specification, and finish it in a way which fits in with the surrounding environment to include: • setting out and location • materials and resources • timing and timescales • working methods • suitability of expected use and local tradition 1.5 Use appropriate methods to reduce the impact of erosion on areas around the path 1.6 Leave the site in a suitable condition when the work is finished. 1.7 Inform the appropriate person of any potential improvements to the work specification which are identified

- remedying the situation
- (ii) informing others who need to act.

Learning outcome
The learner will: 2. Be able to work safely and minimise environmental damage
Assessment criteria
The learner can: 2.1 Work in a way which maintains health and safety and is consistent with relevant legislation, codes of practice and any additional requirements 2.2 Carry out work in a manner which minimises environmental damage 2.3 Dispose of waste safely and correctly.

Learning outcome
The learner will: 3. Be able to select, use and maintain relevant equipment
Assessment criteria
The learner can: 3.1 Select appropriate equipment for this area of work 3.2 Use equipment according to relevant legislation and manufacturer's instructions 3.3 Prepare, maintain and store equipment in a safe and effective working condition.

Learning outcome
The learner will: 4. Know how to construct, maintain and repair reinforced paths
Assessment criteria
The learner can: 4.1 State how to identify hazards, assess risks and interpret risk assessments 4.2 State the importance of using appropriate materials to produce a path which is fit for use and fits into the surrounding environment 4.3 State the methods for preparing the site and how to create suitable foundations and drainage 4.4 Describe the purpose of the path and how this relates to the specification and operations 4.5 Describe how to interpret and use relevant specifications 4.6 Describe the methods for constructing, maintaining and repairing reinforced paths 4.7 Describe the special considerations which relate to the proposed line to include: • health and safety

- environmental impact
- access
- site use
- site drainage and soils
- site topography

4.8 State the problems which may occur during operations and how these should be dealt with
- accidental damage
- difficulties in meeting the specification
- disturbance to wildlife or environment

4.9 Describe how the site should be left on completion of operations.

Learning outcome
The learner will: 5. Know the difference between reinforced paths and other types of path
Assessment criteria
The learner can: 5.1 State the defining characteristics of reinforced paths compared to the following: • aggregate paths • flag paths • boardwalk paths • stone pitched paths • bark paths 5.2 Identify typical uses of a reinforced path.

Learning outcome
The learner will: 6. Know relevant health and safety legislation and environmental good practice
Assessment criteria
The learner can: 6.1 Outline the current health and safety legislation, codes of practice and any additional requirements 6.2 Describe how environmental damage can be minimised 6.3 Describe the correct methods for disposing of waste.

Learning outcome
The learner will: 7. Know the types of equipment required and how to maintain them

Assessment criteria
The learner can: 7.1 Describe the equipment which will be required for the activity 7.2 Describe the methods of maintaining the range of equipment.

Unit 467 Construct, maintain and repair reinforced paths

Supporting information

Guidance

Simulation will not be acceptable where the unit is included in qualifications which verify competent performance. Please refer to Lantra's Assessment Strategy for further guidance.

Unit 468 Construct, maintain and repair flag paths

UAN:	**T/502/3214**
Level:	Level 2
Credit value:	4
GLH:	30
Relationship to NOS:	This unit is linked to Environmental Conservation NOS
Endorsement by a sector or regulatory body:	This unit is endorsed by Lantra, the Sector Skills Council for Land and Environment

Learning outcome
The learner will: 1. Be able to construct, maintain and repair flag paths
Assessment criteria
The learner can: 1.1 Identify the proposed line for the flag path and any special considerations 1.2 Take steps to ensure that other site users are not put at risk by work including: • providing information (signs etc.) • re-routing access away from unsafe areas • speaking to others on site 1.3 Provide drainage to specification to suit the site's needs and its expected levels of use 1.4 Construct, maintain or repair the flag path to specification, and finish it in a way which fits in with the surrounding environment to include: • setting out and location • materials and resources • timing and timescales • working methods • suitability of expected use and local tradition 1.5 Use appropriate methods to reduce the impact of erosion on areas around the path 1.6 Leave the site in a suitable condition when the work is finished. 1.7 Inform the appropriate person of any potential improvements to the work specification which are identified

• remedying the situation • informing others who need to act.
Learning outcome
The learner will: 2. Be able to work safely and minimise environmental damage
Assessment criteria
The learner can: 2.1 Work in a way which maintains health and safety and is consistent with relevant legislation, codes of practice and any additional requirements 2.2 Carry out work in a manner which minimises environmental damage 2.3 Dispose of waste safely and correctly.

Learning outcome
The learner will: 3. Be able to select, use and maintain relevant equipment
Assessment criteria
The learner can: 3.1 Select appropriate equipment for this area of work 3.2 Use equipment according to relevant legislation and manufacturer's instructions 3.3 Prepare, maintain and store equipment in a safe and effective working condition.

Learning outcome
The learner will: 4. Know how to construct, maintain and repair flag paths
Assessment criteria
The learner can: 4.1 State how to identify hazards, assess risks and interpret risk assessments 4.2 State the importance of using appropriate materials to produce a flag path which is fit for use and fits into the surrounding environment 4.3 State the suitable methods for preparing the site and how to create suitable foundations and drainage 4.4 Describe how to interpret and use relevant specifications 4.5 Describe the methods for constructing, maintaining and repairing flag paths and their usefulness for different path contexts 4.6 Describe all the special considerations which relate to the proposed line to include: • health and safety

- environmental impact
- access
- site use
- site drainage and soils
- site topography

4.7 State the problems which may occur during operations and how these should be dealt with
- accidental damage
- difficulties in meeting the specification
- disturbance to wildlife or environment

4.8 Describe how the site should be left on completion of operations

4.9 State the suitable methods for preparing the site and how to create suitable foundations and drainage

4.10 Describe how to interpret and use relevant specifications

4.11 Describe the methods for constructing, maintaining and repairing flag paths and their usefulness for different path contexts

4.12 Describe all the special considerations which relate to the proposed line to include:
- health and safety
- environmental impact
- access
- site use
- site drainage and soils
- site topography

4.13 State the problems which may occur during operations and how these should be dealt with:
- accidental damage
- difficulties in meeting the specification
- disturbance to wildlife or environment

4.14 Describe how the site should be left on completion of operations

4.15 State the problems which may occur during operations and how these should be dealt with
- accidental damage
- difficulties in meeting the specification
- disturbance to wildlife or environment

4.16 Describe how the site should be left on completion of operations.

Learning outcome
The learner will: 5. Know the difference between flag paths and other types of path
Assessment criteria
The learner can: 5.1 State the defining characteristics of flag paths compared to the following: • stone pitched paths

- aggregate paths
- reinforced paths
- bark paths

5.2 Identify typical uses of a flag path.

Learning outcome
The learner will: 6. Know relevant health and safety legislation and environmental good practice
Assessment criteria
The learner can: 6.1 Outline the current health and safety legislation, codes of practice and any additional requirements 6.2 Describe how environmental damage can be minimised 6.3 Describe the correct methods for disposing of waste.

Learning outcome
The learner will: 7. Know the types of equipment required and how to maintain them
Assessment criteria
The learner can: 7.1 Describe the equipment which will be required for the activity 7.2 Describe the methods of maintaining the range of equipment.

Unit 468 Construct, maintain and repair flag paths

Supporting information

Guidance

Simulation will not be acceptable where the unit is included in qualifications which verify competent performance. Please refer to Lantra's Assessment Strategy for further guidance.

Unit 469 Construct, maintain and repair boardwalks

UAN:	**M/502/3213**
Level:	Level 2
Credit value:	4
GLH:	30
Relationship to NOS:	This unit is linked to Environmental Conservation NOS
Endorsement by a sector or regulatory body:	This unit is endorsed by Lantra, the Sector Skills Council for Land and Environment

Learning outcome

The learner will:

1. Be able to construct, maintain and repair boardwalks

Assessment criteria

The learner can:

1.1 Identify the proposed line for the boardwalk path and the special considerations

1.2 Take steps to ensure that other site users are not put at risk by work including:

- providing information (signs etc.)
- re-routing access away from unsafe areas
- speaking to others on site

1.3 Provide drainage to specification to suit the site's needs and its expected levels of use

1.4 Construct, maintain or repair the boardwalk to specification, and finish it in a way which fits in with the surrounding environment to include:

- setting out and location
- materials and resources
- timing and timescales
- working methods
- suitability of expected use and local tradition

1.5 Use appropriate methods to reduce the impact of erosion on areas around the path

1.6 Leave the site in a suitable condition when the work is finished.

1.7 Inform the appropriate person of any potential improvements to the work specification which are identified

• remedying the situation • informing others who need to act.
Learning outcome
The learner will: 2. Be able to work safely and minimise environmental damage
Assessment criteria
The learner can: 2.1 Work in a way which maintains health and safety and is consistent with relevant legislation, codes of practice and any additional requirements 2.2 Carry out work in a manner which minimises environmental damage 2.3 Dispose of waste safely and correctly.

Learning outcome
The learner will: 3. Be able to select, use and maintain relevant equipment
Assessment criteria
The learner can: 3.1 Select appropriate equipment for this area of work 3.2 Use equipment according to relevant legislation and manufacturer's instructions 3.3 Prepare, maintain and store equipment in a safe and effective working condition.

Learning outcome
The learner will: 4. Know how to construct, maintain and repair boardwalks
Assessment criteria
The learner can: 4.1 State how to identify hazards, assess risks and interpret risk assessments 4.2 State the importance of using appropriate materials to produce a boardwalk which is fit for use and fits into the surrounding environment 4.3 Describe suitable methods for preparing the site and how to create suitable foundations and drainage 4.4 Describe how to interpret and use relevant specifications 4.5 Describe the methods for constructing, maintaining and repairing boardwalks and their usefulness for different path contexts 4.6 Describe all the special considerations which relate to the proposed line to include: • health and safety

- environmental impact
- access
- site use
- site drainage and soils
- site topography

4.7 State the problems which may occur during operations and how these should be dealt with
- accidental damage
- difficulties in meeting the specification
- disturbance to wildlife or environment

4.8 Describe how the site should be left on completion of operations.

Learning outcome
The learner will: 5. Know the difference between boardwalk paths and other types of path
Assessment criteria
The learner can: 5.1 State the defining characteristics of boardwalk paths compared to the following: • stone pitched paths • flag paths • aggregate paths • reinforced paths • bark paths 5.2 Identify a typical use of a boardwalk path.

Learning outcome
The learner will: 6. Know relevant health and safety legislation and environmental good practice
Assessment criteria
The learner can: 6.1 Outline the current health and safety legislation, codes of practice and any additional requirements 6.2 Describe how environmental damage can be minimised 6.3 Describe the correct methods for disposing of waste.

Learning outcome
The learner will: 7. Know the types of equipment required and how to maintain them

Assessment criteria
The learner can: 7.1 Describe the equipment which will be required for the activity 7.2 Describe the methods of maintaining the range of equipment.

Unit 469 Construct, maintain and repair boardwalks

Supporting information

Guidance

Simulation will not be acceptable where the unit is included in qualifications which verify competent performance. Please refer to Lantra's Assessment Strategy for further guidance.

Unit 470 Construct, maintain and repair bark paths

UAN:	**K/502/3209**
Level:	Level 2
Credit value:	4
GLH:	30
Relationship to NOS:	This unit is linked to Environmental Conservation NOS
Endorsement by a sector or regulatory body:	This unit is endorsed by Lantra, the Sector Skills Council for Land and Environment

Learning outcome

The learner will:

1. Be able to construct, maintain and repair bark paths

Assessment criteria

The learner can:

1.1 Identify the proposed line for the bark path and the special considerations

1.2 Take steps to ensure that other site users are not put at risk by work by:

- providing information (signs etc.)
- re-routing access away from unsafe areas
- speaking to others on site

1.3 Provide drainage to specification to suit the site's needs and its expected levels of use

1.4 Construct, maintain or repair the bark path to specification, and finish it in a way which fits in with the surrounding environment to include:

- setting out and location
- materials and resources
- timing and timescales
- working methods
- suitability of expected use and local tradition

1.5 Use appropriate methods to reduce the impact of erosion on areas around the path

1.6 Leave the site in a suitable condition when the work is finished

1.7 Inform the appropriate person of any potential improvements to the work specification which are identified

- remedying the situation
- informing others who need to act.

Learning outcome
The learner will: 2. Be able to work safely and minimise environmental damage
Assessment criteria
The learner can: 2.1 Work in a way which maintains health and safety and is consistent with relevant legislation, codes of practice and any additional requirements 2.2 Carry out work in a manner which minimises environmental damage 2.3 Dispose of waste safely and correctly.

Learning outcome
The learner will: 3. Be able to select, use and maintain relevant equipment
Assessment criteria
The learner can: 3.1 Select appropriate equipment for this area of work 3.2 Use equipment according to relevant legislation and manufacturer's instructions 3.3 Prepare, maintain and store equipment in a safe and effective working condition.

Learning outcome
The learner will: 4. Know how to construct, maintain and repair bark paths
Assessment criteria
The learner can: 4.1 State how to identify hazards, assess risks and interpret risk assessments 4.2 State the importance of using appropriate materials to produce a path which is fit for use and fits into the surrounding environment 4.3 State the methods for preparing the site and how to create suitable foundations and drainage 4.4 Describe the purpose of the path and how this relates to the specification and operations 4.5 Describe how to interpret and use relevant specifications 4.6 Describe the methods for constructing, maintaining and repairing bark paths 4.7 Describe the special considerations which relate to the proposed line to include: • health and safety

- environmental impact
- access
- site use
- site drainage and soils
- site topography

4.8 State the problems which may occur during operations and how these should be dealt with

- accidental damage
- difficulties in meeting the specification
- disturbance to wildlife or environment

4.9 Describe how the site should be left on completion of operations.

Learning outcome
The learner will: 5. Know relevant health and safety legislation and environmental good practice
Assessment criteria
The learner can: 5.1 Outline the current health and safety legislation, codes of practice and any additional requirements 5.2 Describe how environmental damage can be minimised 5.3 Describe the correct methods for disposing of waste.

Learning outcome
The learner will: 6. Know the types of equipment required and how to maintain them
Assessment criteria
The learner can: 6.1 Describe the equipment which will be required for the activity 6.2 Describe the methods of maintaining the range of equipment.

Unit 470 Construct, maintain and repair bark paths

Supporting information

Guidance

Simulation will not be acceptable where the unit is included in qualifications which verify competent performance. Please refer to Lantra's Assessment Strategy for further guidance.

Unit 471 Construct, maintain and repair aggregate paths

UAN:	**D/502/3207**
Level:	Level 2
Credit value:	4
GLH:	30
Relationship to NOS:	This unit is linked to Environmental Conservation NOS
Endorsement by a sector or regulatory body:	This unit is endorsed by Lantra, the Sector Skills Council for Land and Environment

Learning outcome

The learner will:

1. Be able to construct, maintain and repair aggregate paths

Assessment criteria

The learner can:

1.1 Identify the proposed line for the aggregate path

1.2 Take steps to ensure that other site users are not put at risk by work including:

- providing information (signs etc.)
- re-routing access away from unsafe areas
- speaking to others on site

1.3 Provide drainage to specification to suit the site's needs and its expected levels of use

1.4 Construct, maintain or repair the aggregate path to specification, and finish it in a way which fits in with the surrounding environment to include:

- setting out and location
- materials and resources
- timing and timescales
- working methods
- suitability of expected use and local tradition

1.5 Use appropriate methods to reduce the impact of erosion on areas around the path

1.6 Leave the site in a suitable condition when the work is finished.

1.7 Inform the appropriate person of any potential improvements to the work specification which are identified

- remedying the situation

- informing others who need to act.

Learning outcome
The learner will: 2. Be able to work safely and minimise environmental damage
Assessment criteria
The learner can: 2.1 Work in a way which maintains health and safety and is consistent with relevant legislation, codes of practice and any additional requirements 2.2 Carry out work in a manner which minimises environmental damage 2.3 Dispose of waste safely and correctly.

Learning outcome
The learner will: 3. Be able to select, use and maintain relevant equipment
Assessment criteria
The learner can: 3.1 Select appropriate equipment for this area of work 3.2 Use equipment according to relevant legislation and manufacturer's instructions 3.3 Prepare, maintain and store equipment in a safe and effective working condition.

Learning outcome
The learner will: 4. Know the different types of path
Assessment criteria
The learner can: 4.1 State the defining characteristics of an aggregate path compared to the following: • stone pitched paths • flag paths • boardwalks • reinforced paths • bark paths 4.2 State the typical use of an aggregate path.

Learning outcome
The learner will: 5. Know how to construct, maintain and repair paths
Assessment criteria
The learner can: 5.1 State how to identify hazards, assess risks and interpret risk assessments 5.2 State the importance of using appropriate materials to produce a path which is fit for use and fits into the surrounding environment 5.3 State the methods for preparing the site and how to create suitable foundations and drainage 5.4 State the purpose of the path and how this relates to the specification and operations 5.5 Describe how to interpret and use relevant specifications 5.6 Describe the methods for constructing, maintaining and repairing paths 5.7 Describe special considerations which relate to the line to include: • health and safety • environmental impact • access • site use • site drainage and soils • site topography 5.8 State the problems which may occur during operations and how these should be dealt with • accidental damage • difficulties in meeting the specification • disturbance to wildlife or environment 5.9 Describe how the site should be left on completion of operations.

Learning outcome
The learner will: 6. Know relevant health and safety legislation and environmental good practice
Assessment criteria
The learner can: 6.1 Outline the current health and safety legislation, codes of practice and any additional requirements 6.2 Describe how environmental damage can be minimised 6.3 Describe the correct methods for disposing of waste.

Learning outcome
The learner will: 7. Know the types of equipment required and how to maintain them
Assessment criteria
The learner can: 7.1 Describe the equipment which will be required for the activity 7.2 Describe the methods of maintaining the range of equipment

Unit 471 Construct, maintain and repair aggregate paths

Supporting information

Guidance

Simulation will not be acceptable where the unit is included in qualifications which verify competent performance. Please refer to Lantra's Assessment Strategy for further guidance.

Unit 472 Dispose of stumps and roots

UAN:	**K/601/0261**
Level:	Level 2
Credit value:	1
GLH:	8
Relationship to NOS:	This unit is linked to Environmental NOS
Endorsement by a sector or regulatory body:	This unit is endorsed by Lantra, the Sector Skills Council for Land and Environment

Learning outcome
The learner will: 1. Be able to dispose of stumps and roots
Assessment criteria
The learner can: 1.1 Establish the condition of the stumps 1.2 Locate and protect services and property 1.3 Use method of extraction/disposal appropriate to stump and root condition with regard to the landowner's requirements, the situation and industry guidelines 1.4 Restore the site to a condition that is acceptable to landowner and specification.

Learning outcome
The learner will: 2. Be able to work safely and minimise environmental damage
Assessment criteria
The learner can: 2.1 Work in a way which maintains health and safety and is consistent with relevant legislation, codes of practice and any additional requirements 2.2 Carry out work in a manner which minimises environmental damage 2.3 Dispose of residue/arisings safely and correctly.

Learning outcome
The learner will: 3. Be able to select, prepare use and maintain equipment
Assessment criteria
The learner can: 3.1 Select and use appropriate equipment for this area of work 3.2 Check, prepare, maintain and store equipment in a safe and effective working condition.

Learning outcome
The learner will: 4. Know how to treat and dispose of stumps and roots
Assessment criteria
The learner can: 4.1 State how to identify, locate and protect services and why this is important 4.2 Outline the importance of restoring site to acceptable condition 4.3 Describe methods for stump and root extraction/ disposal and when these should be used 4.4 Describe how to establish the condition of stump.

Learning outcome
The learner will: 5. Know relevant health and safety legislation and environmental good practice
Assessment criteria
The learner can: 5.1 Outline the current health and safety legislation, codes of practice and any additional requirements 5.2 Describe how environmental damage can be minimised 5.3 Describe the correct methods for disposing of waste.

Learning outcome
The learner will: 6. Know the types of equipment required and how to maintain them
Assessment criteria
The learner can: 6.1 Describe the equipment and methods of maintaining the equipment which will be required for the activity.

Unit 472 Dispose of stumps and roots

Supporting information

Guidance

Simulation will not be acceptable where the unit is included in qualifications which verify competent performance. Please refer to Lantra's Assessment Strategy for further guidance.

Unit 507 Construct a greenwood product to client specification

UAN:	**D/504/3666**
Level:	Level 3
Credit value:	8
GLH:	52
Relationship to NOS:	This unit is linked to Trees and Timber NOS
Endorsement by a sector or regulatory body:	This unit is endorsed by Lantra, the Sector Skills Council for Land and Environment.
Aim:	The aim and purpose of this unit is to provide the learner with the knowledge and skills required to construct a greenwood product to a client specification

Learning outcome
The learner will: 1. Be able to promote health and safety and industry good practice
Assessment criteria
The learner can: 1.1 Identify the **hazards and risks** associated with the working area and the proposed work 1.2 Carry out work in accordance with relevant legislation, industry best practice 1.3 Use **tools, equipment and personal protective equipment** (PPE).

Range
Hazards and risks Complete an appropriate risk assessment **Tools, equipment and personal protective equipment** Maintain tools, equipment and personal protective equipment (PPE).

Learning outcome
The learner will: 2. Be able to construct a greenwood product to client specification
Assessment criteria
The learner can: 2.1 Obtain an accurate specification of the greenwood product 2.2 Prepare a quotation for constructing the greenwood product 2.3 **Check materials** are suitable and appropriate to meet product specification 2.4 Construct a greenwood product to a design specification 2.5 Provide advice to minimise degradation of products in use, storage and transit.

Range
Check materials Using SMART Objectives **Construct a greenwood product** Finish the greenwood product in a suitable way that will enhance and/or preserve it.

Learning outcome
The learner will: 3. Understand relevant health and safety legislation and industry good practice
Assessment criteria
The learner can: 3.1 Explain the importance of risk assessment 3.2 Summarise current health and safety legislation and industry good practice 3.3 Explain the importance of maintaining tools, equipment and personal protective equipment (PPE).

Learning outcome
The learner will: 4. Understand the principles of constructing greenwood products
Assessment criteria
The learner can: 4.1 Explain the **costing out of product** including time and costs 4.2 Explain commonly used methods for specifying greenwood products 4.3 Explain different **products** used to finish and preserve a completed greenwood product and their application 4.4 Compare different types of joints and their uses

4.5	Outline the need for product liability and when it is appropriate.

Range
Costing out of product How to organise batch production **Products** Product life expectancy and maintenance How to protect products against damage and degradation.

Unit 507 Construct a greenwood product to client specification

Supporting information

Guidance

Simulation will not be acceptable where the unit is included in qualifications which verify competent performance. Please refer to Lantra's Assessment Strategy for further guidance.

Unit 510 Prepare for and agree emergency tree work operations

UAN:	**F/504/0663**
Level:	Level 3
Credit value:	5
GLH:	33
Relationship to NOS:	This unit is linked to Trees and Timber NOS
Endorsement by a sector or regulatory body:	This unit is endorsed by Lantra, the Sector Skills Council for Land and Environment
Aim:	The aim and purpose of this unit is to provide the learner with the knowledge skills and understanding to prepare for and agree emergency treework operations

Learning outcome
The learner will: 1. Be able to promote health and safety and industry good practice
Assessment criteria
The learner can: 1.1 Identify the **hazards and risks** associated with the working area and the proposed work 1.2 Use appropriate tools, equipment and personal protective equipment (PPE) 1.3 Work in a way which promotes health and safety and is consistent with relevant legislation and industry good practice 1.4 Carry out work to minimise environmental damage 1.5 Dispose of waste in line with legislation.

Range
Hazards and risks 3 hazards and the associated risks with the working area. 3 hazards and the associated risks with the proposed work.

Learning outcome
The learner will: 2. Be able to prepare for and agree emergency treework operations
Assessment criteria
The learner can: 2.1 Prepare vehicle(s) and kit in anticipation of an emergency 2.2 Install suitable controls 2.3 Agree and establish an efficient and effective communication system with all the other services on site 2.4 Agree and establish an emergency plan and a method of work that is appropriate to the safety of those involved, the working area and the complexity of the situation 2.5 Check appropriate traffic management systems are in place to protect the workforce 2.6 Check that the emergency services have taken all necessary actions prior to undertaking treework operations 2.7 Match the skills and experience of personnel to the treework operations and the complexity of the situation.

Learning outcome
The learner will: 3. Understand relevant health and safety legislation and industry good practice
Assessment criteria
The learner can: 3.1 Explain the process of **risk assessment** 3.2 Outline the **emergency planning procedures** relevant to the work area 3.3 Summarise current **health and safety legislation and industry good practice** 3.4 Explain the **importance of maintaining tools, equipment and personal protective equipment** 3.5 Describe the **potential environmental damage** that could occur and how to respond appropriately 3.6 Explain the correct **methods for disposing of waste** 3.7 Explain the **records** required for management and legislative purposes and the importance of maintaining them.

Range
Risk assessment Five steps to risk assessment **Emergency planning procedures**

State 5 emergency procedures

Health and safety legislation and industry good practice

2 points

Health and Safety at Work Act 1974

The Provision and Use of Work Equipment Regulations 1998 (PUWER)

State where to find Industry Good Practice information

Aboricultural Forestry Advisory Guides (AFAG)

State the safe working distances between operators during:

- Cross-cutting
- Felling

4 requirements

Lifting Operations and Lifting Equipment Regulations 1998 (LOLER)

3 requirements

Work at Height Regulations 2005

importance of maintaining tools, equipment and personal protective equipment

3 reasons

Potential environmental damage

2 occurrences

2 responses

Methods for disposing of waste

2 methods

Records

3 records

1 reason.

Learning outcome
The learner will: 4. Understand how to prepare for and agree emergency treework operations
Assessment criteria
The learner can: 4.1 Explain the **importance of responding** appropriately to the urgency of the emergency 4.2 Explain why it is **important to have vehicles and kit prepared** in anticipation of any emergency 4.3 Investigate where to **research advance warning of emergencies,** such as weather 4.4 Explain how to **deploy the workforce** efficiently and effectively 4.5 Explain how to identify the **presence and significance of utilities**

4.6	Explain **contingency planning** for different emergencies
4.7	Explain how to **secure sites for safe and effective working** including the correct location and positioning of warning signs and access controls
4.8	Explain how the **complexity of the situation can impact on the treework operations**
4.9	Explain how to **prioritise emergencies**.

Range

importance of responding
2 reasons

important to have vehicles and kit prepared
3 reasons

Research advance warning of emergencies
2 where

Deploy the workforce
3 reasons

Presence and significance of utilities
2 identify
2 significance

Contingency planning
3 explained

Secure sites for safe and effective working
2 reasons

Complexity of the situation can impact on the treework operations
3 complexities

Prioritise emergencies
2 reasons

Unit 510 Prepare for and agree emergency tree work operations

Supporting information

Guidance

Simulation will not be acceptable where the unit is included in qualifications which verify competent performance. Please refer to Lantra's Assessment Strategy for further guidance.

Unit 511 Lay a hedge

UAN:	**F/504/3661**
Level:	Level 3
Credit value:	4
GLH:	26
Relationship to NOS:	This unit is linked to Horticulture NOS
Endorsement by a sector or regulatory body:	This unit is endorsed by Lantra, the Sector Skills Council for Land and Environment
Aim:	The aim and purpose of this unit is to provide the learner with the knowledge and skills to lay a hedge

Learning outcome
The learner will: 1. Be able to promote health and safety and industry good practice
Assessment criteria
The learner can: 1.1 Identify the **hazards and risks** associated with the working area and the proposed work 1.2 Carry out work in accordance with relevant legislation, industry good practice, any additional requirements and maintains health and safety 1.3 Use **tools, equipment and personal protective equipment (PPE)** 1.4 Carry out work to minimise environmental damage.

Range
Hazards and risks Complete an appropriate risk assessment **Tools, equipment and personal protective equipment (PPE)** Maintain tools, equipment and personal protective equipment (PPE) safely.

Learning outcome
The learner will: 2. Be able to plan to lay a hedge
Assessment criteria
The learner can: 2.1 Identify the main purpose and species of the hedge 2.2 Determine the **style** in which the hedge laying will take place taking account of regional variances 2.3 Identify which hedgerow trees are to be retained and if any special protection measures exist 2.4 Estimate the **number of plants** required to restock the gaps.

Range
Style Check for the presence of utility cables and fencing **Number of plants** Measure the length of the hedged to be laid and estimate materials required

Learning outcome
The learner will: 3. Be able to lay a hedge
Assessment criteria
The learner can: 3.1 Identify the direction in which the hedge will be laid and where laying will commence 3.2 Select pleachers to meet specification 3.3 **Cut pleachers** at the correct angle, maintaining viable hinges and reduce stumps appropriately 3.4 Lay pleachers to meet specification 3.5 Sharpen stakes as required 3.6 **Install stakes** at determined spacing in accordance with the style of hedging.

Range
Cut pleachers Remove dead wood and other unwanted materials Fill gaps as appropriate **Install stakes**

Bind hedge, trim off stakes.

Learning outcome
The learner will: 4. Understand relevant health and safety legislation and industry good practice
Assessment criteria
The learner can: 4.1 Explain the importance of risk assessment 4.2 Summarise current health and safety legislation and industry good practice 4.3 Explain the importance of maintaining tools, equipment and personal protective equipment (PPE) 4.4 Describe the potential environmental damage that could occur and how to respond appropriately.

Learning outcome
The learner will: 5. Know how to lay a hedge
Assessment criteria
The learner can: 5.1 Explain the **reasons for laying hedges** 5.2 State the most appropriate **time of year** to lay hedges 5.3 Explain the effect of your work on **wildlife habitat** 5.4 Describe different hedgerow species and their characteristics 5.5 Explain the **different styles of hedge laying and regional variances**.

Range
Reasons for laying hedges Biodiversity, stock proof, maintain landscape, etc. **Time of year** Depending on local climate and the effect of frost on the pleachers **Wildlife habitat** eg bird nesting season **Different styles of hedge laying and regional variances** The appropriate length and diameter of stems to use as pleachers types and sources of binders and stakes available.

Unit 511 Lay a hedge

Supporting information

Guidance

Simulation will not be acceptable where the unit is included in qualifications which verify competent performance. Please refer to Lantra's Assessment Strategy for further guidance.

Unit 512 Extract timber using a horse

UAN:	**F/504/3675**
Level:	Level 3
Credit value:	8
GLH:	52
Relationship to NOS:	This unit is linked to Trees and Timber NOS
Endorsement by a sector or regulatory body:	This unit is endorsed by Lantra, the Sector Skills Council for Land and Environment

Learning outcome
The learner will: 1. Be able to promote health and safety and industry good practice
Assessment criteria
The learner can: 1.1 Identify the **hazards and risks** associated with the working area and the proposed work 1.2 Carry out work in accordance with relevant **legislation, industry good practice and promotes health and safety** 1.3 Use **tools, equipment and personal protective equipment (PPE) safely** 1.4 Carry out work to minimise environmental damage.

Range
Hazards and risks Complete an appropriate risk assessment **Legislation, industry good practice and promotes health and safety** Including animal health and welfare **Tools, equipment and personal protective equipment (PPE) safely** Maintain tools, equipment and personal protective equipment (PPE).

Learning outcome
The learner will: 2. Be able to extract timber using a horse
Assessment criteria
The learner can: 2.1 Maintain access and extraction routes in a serviceable condition 2.2 **Extract wood products** effectively and efficiently using agreed extraction routes 2.3 Unload products 2.4 **Grade products** according to the specification 2.5 Accumulate products in agreed area to facilitate uplift and onward dispatch 2.6 Maintain the health and welfare of the horse throughout the activity.

Range
Extract wood products Position load and unload machinery effectively **Grade products** Separate products in accordance with job specification.

Learning outcome
The learner will: 3. Understand relevant health and safety legislation and industry good practice
Assessment criteria
The learner can: 3.1 Explain the importance of risk assessment 3.2 Outline the emergency planning procedures relevant to the work area 3.3 Summarise current health and safety legislation and industry good practice 3.4 Explain the importance of maintaining tools, equipment and personal protective equipment (PPE) 3.5 Describe the potential environmental damage that could occur and how to respond appropriately.

Learning outcome
The learner will: 4. Understand the extraction of timber using a horse
Assessment criteria
The learner can: 4.1 Explain how to interpret product specifications and select produce into product categories during loading 4.2 Explain how the **slope limitations and maximum safe working load** impact on the capabilities and limitations of the horse 4.3 Explain the **implications** of terrain, ground conditions, season, weather, load and timber type/condition on planning access routes and driving the horse 4.4 State the effect of unbalanced loads on extraction 4.5 Explain methods of grading, stacking and handling products to meet specification/customer requirements 4.6 Explain the importance of monitoring and maintaining the health and welfare of the horse throughout.

Range
Slope limitations and maximum safe working load The need to regularly check the welfare of the horse **Implications** How to select suitable extraction route

Unit 512 Extract timber using a horse

Supporting information

Guidance

Simulation will not be acceptable where the unit is included in qualifications which verify competent performance. Please refer to Lantra's Assessment Strategy for further guidance.

Unit 520 Carry out aerial pruning of a tree

UAN:	**K/504/0317**
Level:	Level 3
Credit value:	3
GLH:	19
Relationship to NOS:	This unit is linked to Trees and Timber NOS
Endorsement by a sector or regulatory body:	This unit is endorsed by Lantra, the Sector Skills Council for Land and Environment
Aim:	The aim and purpose of this unit is to provide the learner with the knowledge, skills and understanding to carry out aerial pruning of a tree

Learning outcome
The learner will: 1. Be able to promote health and safety and industry good practice
Assessment criteria
The learner can: 1.1 Identify the **hazards and risks** associated with the working area and the proposed work 1.2 Work in a way which promotes health and safety, is consistent with relevant legislation and industry good practice 1.3 Use and maintain tools, equipment and personal protective equipment (PPE) 1.4 Carry out work to **minimise environmental damage** 1.5 Dispose of waste safely in line with legislation.

Range
Hazards and risks 3 hazards and the associated risks with the working area 3 hazards and the associated risks with the proposed work **Minimise environmental damage** Inspect the working area for potential (negative) environmental damage Record finding(s) and report as appropriate Implement any required control measure(s).

Learning outcome
The learner will: 2. Be able to carry out aerial pruning of a tree
Assessment criteria
The learner can: 2.1 Perform a **hazard evaluation** and Work At Height assessment prior to carrying out the work 2.2 Use access and positioning methods appropriate to the assessed risk(s) 2.3 Inspect all access equipment to ensure it is safe and fit for use under manufacturers instructions and relevant legislation 2.4 Select an appropriate anchor point if climbing or appropriate position of Mobile Elevated Work Platform (MEWP) according to the work situation 2.5 Reassess the anchor point for climbing or positioning of Mobile Elevated Work Platform (MEWP) throughout the work 2.6 Apply pruning specification 2.7 **Carry out pruning operations** in accordance with industry good practice 2.8 Check all arisings are dropped/thrown into planned drop zone without compromising the access equipment or damage to the infrastructure.

Range
Hazard evaluation 6 hazards of the tree **Carry out pruning operations** 1 x Crown reduction 1 x Crown thinning.

Learning outcome
The learner will: 3. Understand relevant health and safety legislation and industry good practice
Assessment criteria
The learner can: 3.1 Explain the importance of **risk assessment** 3.2 Outline the **emergency planning procedures** relevant to the work area 3.3 Summarise current **health and safety legislation and industry good practice** 3.4 Explain the importance of maintaining tools, equipment and personal protective equipment

3.5	Describe the potential environmental damage that could occur and how to respond appropriately
3.6	Explain the correct and appropriate methods for disposing of waste.

Range
Risk assessment 5 steps of risk assessment **Emergency planning procedures** 5 emergency procedures **Health and safety legislation and industry good practice** Lifting Operations and Lifting Equipment Regulations 1998 (LOLER) The Provision and Use of Work Equipment Regulations 1998 (PUWER) Work at Height Regulations 2005 Arboricultural Forestry Advisory Guides (AFAG).

Learning outcome
The learner will: 4. Understand how to carry out aerial pruning of a tree
Assessment criteria
The learner can: 4.1 Explain **control measures** to be implemented relevant to the working area and proposed works 4.2 Explain how to evaluate the tree for hazards and the implications of the hazards when identified 4.3 Explain the importance of accurate and appropriate cuts when removing branch material 4.4 Explain how tree species, their condition and the time of year affect the work 4.5 Evaluate the advantages and disadvantages of pruning tools to the selected pruning operations 4.6 Explain the additional **precautions** that may be taken during re-pollarding of trees 4.7 Define pruning prescriptive terms and measurements 4.8 Explain measurement terms and how to apply them 4.9 Explain the basic principles of target pruning and the effect on tree pruning operations.

Range
Control measures 2 control measures

2 reasons (1 reason for each)
1 advantage and 1 disadvantage of each tool
Minimum of 2 tools to be selected

Precautions
2 precautions.

Unit 520 Carry out aerial pruning of a tree

Supporting information

Guidance

The learner will undertake both crown reduction and crown thinning on a tree above 380mmRefer to Lantra SSC's Assessment Strategy for full details.

Unit 525 Sever uprooted or windblown trees using a chainsaw

UAN:	**L/504/0620**
Level:	Level 3
Credit value:	4
GLH:	26
Relationship to NOS:	This unit is linked to Trees and Timber NOS
Endorsement by a sector or regulatory body:	This unit is endorsed by Lantra, the Sector Skills Council for Land and Environment
Aim:	The aim and purpose of this unit is to provide the learner with the knowledge and skills to sever uprooted or windblown trees using a chainsaw

Learning outcome
The learner will: 1. Be able to promote health and safety and industry good practice
Assessment criteria
The learner can: 1.1 Identify the **hazards and risks** associated with the working area and the proposed work 1.2 Use appropriate **tools, equipment and personal protective equipment (PPE)** 1.3 Work in a way which promotes health and safety and is consistent with relevant legislation and industry good practice 1.4 Carry out work to **minimise environmental damage** 1.5 Dispose of waste in line with legislation.

Range
Hazards and risks 3 hazards and the associated risks with the working area. 3 hazards and the associated risks with the proposed work. **Tools, equipment and personal protective equipment (PPE)** INDG145; INDG317; AFAG301; AFAG306; AFAG307 **Minimise environmental damage** Inspect working area for potential (negative) environmental damage.

Record findings, and report as appropriate.
Implement required control measures.

Learning outcome

The learner will:

2. Be able to sever uprooted and windblown trees using a chainsaw

Assessment criteria

The learner can:

2.1 Carry out pre-start checks and setting of the machine for use
2.2 Plan and agree a **system of work**
2.3 Prepare site and establish escape route
2.4 Demonstrate **safe starting of the chainsaw**
2.5 **Prepare stems**
2.6 **Sever stems** under significant tension and compression
2.7 **Secure the root plate** with a winch
2.8 **Sever the root plates** using a recognised severing method appropriate to the tree size and condition
2.9 Prepare **broken and partially windblown trees** using appropriate methods and aid tools for felling
2.10 **Fell broken trees** using appropriate methods and aid tools
2.11 **Fell partially windblown trees** using appropriate methods and aid tools
2.12 **Turn tree** and remove under branches using appropriate method and aid tools
2.13 Cross-cut timber to length in accordance with the specification
2.14 **Stack produce** for subsequent operations using appropriate aids and tools
2.15 Check that trees, timber and root plates are in a safe, appropriate position and condition
2.16 Clean and tidy working area.

Range

Pre-start checks and setting of the machine

Operator's handbook; INDG317

System of work

Include:

- Relevant briefings to all operators on site.
- AFAG306.
- AFAG802.

Safe starting of the chainsaw

Include operational checks.

- INDG317
- AFAG301.

Prepare stems

Appropriate to tree position, size, condition and species.

May include removing:

- Branches.
- Climbing vegetation and scrub.
- Soil and gravel.
- Other obstructions.

Sever stems

Minimum 2, maximum 4 stems under top/bottom tension/compression.

Minimum 1, maximum 2 stem under side tension/compression.

Secure the root plate

Learner to demonstrate on a root plate overhanging work position (where not available simulation is acceptable).

Sever the root plates

Minimum 3, maximum 6

1 root plate must be secured with a winch

1 tree must include reduction cuts on a stem above guide bar length.

AFAG306

Broken and partially windblown trees

Appropriate to the tree condition and the specification for the site.

May include:

- Brashing lower branches.
- Removing climbing vegetation.
- Removing buttresses.
- Other obstructions.

Broken trees as referred to in AFAG306. Other scenarios and techniques are likely to be encountered.

Fell broken trees

Minimum 2; maximum 4

Appropriate to the tree form, condition and selected felling technique.

Broken trees as referred to in AFAG306. Other scenarios and techniques are likely to be encountered.

It is acceptable for the assessor to prepare trees for assessment.

Fell partially windblown trees

Minimum 2; maximum 4

Appropriate to the tree form, condition and selected felling technique.

A learner must not put themselves at risk when standing on a partially uprooted plate.

Turn tree

INDG145; AFAG303 and AFAG307

Stack produce

Stacking must be tidy.

INDG145.

AFAG304.

Learning outcome
The learner will: 3. Understand relevant health and safety legislation and industry good practice
Assessment criteria
The learner can: 3.1 Explain the **risk assessment process** 3.2 Outline the **emergency planning procedures** relevant to the work area 3.3 Summarise current **health and safety legislation and industry good practice** 3.4 Explain the **importance of maintaining tools, equipment and personal protective equipment** 3.5 Describe the potential **environmental damage** that could occur and how to respond appropriately 3.6 Explain **methods for disposing of waste**.

Range
Risk assessment process Five steps to risk assessment. Provide an example of 3 control measures from the hazards/risks identified. **Emergency planning procedures** AFAG802 – paragraph 16: 5 emergency planning procedures **Current health and safety legislation and industry good practice** State 2 points from each: Health and Safety at Work Act 1974; Provision and Use of Work Equipment Regulations 1998 (PUWER 98) Manual Handling Operations Regulations 1992 Lifting Operations and Lifting Equipment Regulations 1998 (LOLER) 1 reason: Arboriculture Forestry Advisory Group (AFAG) Use of warning signs to be included.

State the safe working distances between operators during felling, cross-cutting and using machinery.

importance of maintaining tools, equipment and personal protective equipment

3 reasons.

Environmental damage

4 examples of environmental damage and appropriate response.

Methods for disposing of waste

State 3 methods.

Learning outcome
The learner will: 4. Understand how to sever uprooted or windblown trees using a chainsaw
Assessment criteria
The learner can: 4.1 Explain top, bottom and side tension and compression in timber 4.2 Explain the **risks involved and precautions** to be taken by the chainsaw operator when cutting timber under high tension 4.3 State when winch restraint of a root plate or stem is necessary 4.4 Describe how to set up winch for restraint of side tension or to prevent uncontrolled movement of timber 4.5 Explain why **severing cuts** may be made a distance of a 'long log' from the root plate and the associated hazards 4.6 Describe the **alternative methods** that can be used to sever timber under very severe tension 4.7 Describe how to **make root plates safe after severing** 4.8 Explain the **factors** to consider and additional safety precautions when using winches 4.9 Describe how to maintain **safety on site** when machinery is present 4.10 Describe the **situations** where a banksman would be used and the means of communication with the operator 4.11 Describe the **methods of severing uprooted trees,** under and over guide bar length in diameter 4.12 Describe how to **sever partly uprooted or windblown trees** 4.13 Describe how to **fell broken trees** with: • hanging tops • partially broken tops which are in contact with the ground 4.14 Explain the **advantages and methods** of removing a broken top prior to felling.

Range
Risks involved and precautions 2 risks and their precautionary measures. **Severing cuts** 2 benefits 2 hazards **Alternative methods** State 2 methods **make root plates safe after severing** Capacity of the winch. Security of anchor points consideration of multiplication of forces on anchor points with eg double rigging or offset (diverted) pulling. Compatibility of components. **Factors** Awareness of danger zones. Clear communication established. Roles and responsibilities understood **Safety on site** Maintain specified risk zone(s). Clear communication with operator. **Situations** Describe 2 situations and 2 means of communication. **Methods of severing uprooted trees** 1 method for under and 1 method for over guide bar length **Sever partly uprooted or windblown trees** Learner to state 2 risks associated with standing on a partially uprooted plate. **Fell broken trees** Techniques safe and appropriate to the tree/site. AFAG306. **Advantages and methods** 2 advantages. 2 methods.

Unit 525 Sever uprooted or windblown trees using a chainsaw

Supporting information

Guidance

Minimum of 6 interwoven windblown trees with a diameter between 300mm-560mm one of which must be at least 380mm.

Minimum 4 broken trees plus 4 partially windblown trees with a diameter between 380mm-560mm.

The trees must have been windblown within the last 12 months (if not available simulation is acceptable).

- Leaning forward - root plate
- Leaning backward - root plate

Refer to Lantra SSCs assessment strategy for further details

Unit 530 Prepare deer for human consumption

UAN:	**M/600/1237**
Level:	Level 3
Credit value:	6
GLH:	39
Relationship to NOS:	This unit is linked to Trees and Timber NOS
Endorsement by a sector or regulatory body:	This unit is endorsed by Lantra, the Sector Skills Council for Land and Environment

Learning outcome
The learner will: 1. Be able to transport and store dead deer
Assessment criteria
The learner can: 1.1 Establish preparation and storage areas in an hygienic condition suitable for receiving deer carcasses 1.2 Transport carcass in an hygienic manner to maintain its quality 1.3 Transport and store deer according to legal requirements.

Learning outcome
The learner will: 2. Be to able prepare and inspect dead deer
Assessment criteria
The learner can: 2.1 Ensure tools and equipment are ready for use 2.2 Bleed and gralloch carcass hygienically and efficiently 2.3 Identify status of deer carcass 2.4 Dress deer carcass by removing: • head • feet • viscera • reproductive organs 2.5 Inspect carcass, organs and lymph sites for normality according to legal requirements 2.6 Take appropriate action when carcass abnormality is identified, according to legal requirements

2.7 Clean and store tools and equipment after use 2.8 Prepare individual carcass declarations.

Learning outcome
The learner will: 3. Be able to promote health and safety and environmental good practice
Assessment criteria
The learner can: 3.1 Work in a way which promotes health and safety, is consistent with relevant legislation, codes of practice and any additional requirements 3.2 Manage and dispose of waste in accordance with legislative requirements and codes of practice.

Learning outcome
The learner will: 4. Be able to maintain accurate records
Assessment criteria
The learner can: 4.1 Maintain accurate carcass records according to legal requirements.

Learning outcome
The learner will: 5. Understand how to transport and store dead deer
Assessment criteria
The learner can: 5.1 Explain how incorrect handling practices can damage game meat 5.2 Describe the proper techniques to be used to handle, transport and store large game carcasses 5.3 Outline industry codes of practice controlling the transport and storage of dead deer.

Learning outcome
The learner will: 6. Understand how to prepare and inspect dead deer in preparation for human consumption
Assessment criteria
The learner can: 6.1 Describe how to identify status of deer in terms of: • sex • weight • reproductive state

- age class
- condition

6.2 Explain how to inspect deer carcasses to establish if condition is acceptable to enter food chain, including smell and appearance of deer carcasses, organs and lymph sites

6.3 Describe the quality requirements for game entering the food chain including permitted levels of flesh damage

6.4 Describe the proper techniques used to bleed, gralloch and eviscerate deer carcasses

6.5 Outline the industry codes of practice controlling the preparation of deer carcasses

6.6 Outline the legal requirements controlling the design and construction of game transport and larder facilities and the tools and equipment used in the preparation of game

6.7 Specify the action to take if carcass abnormalities are identified.

Learning outcome
The learner will: 7. Understand relevant health and safety legislation and environmental good practice
Assessment criteria
The learner can: 7.1 Summarise current health and safety legislation, codes of practice and any additional requirements 7.2 Explain the principles of basic hygiene as it applies to the handling of deer carcasses 7.3 Explain the principles of HACCP as they apply to the supply of game carcasses for human consumption 7.4 Specify individual responsibilities under the current food hygiene regulations 7.5 Describe how environmental damage can be minimised during stalking and culling 7.6 Describe the correct methods for disposing of organic and inorganic waste.

Learning outcome
The learner will: 8. Know how to maintain accurate records
Assessment criteria
The learner can: 8.1 Explain the reason for keeping accurate, up-to-date cull records in respect to: • carcass details • culling details

8.2	Summarise the legal requirements that control the maintenance of cull records
8.3	Outline the legal requirements controlling record keeping, labelling and traceability for game meat entering the food chain
8.4	Describe the individual declaration from the competent person to accompany each carcass to the game handling establishment.

Unit 530 Prepare deer for human consumption

Supporting information

Guidance

Simulation will not be acceptable where the unit is included in qualifications which verify competent performance. Please refer to Lantra's Assessment Strategy for further guidance.

Unit 541 Carry out aerial rescue operations

UAN:	**T/504/0322**
Level:	Level 3
Credit value:	3
GLH:	20
Relationship to NOS:	This unit is linked to Trees and Timber NOS
Endorsement by a sector or regulatory body:	This unit is endorsed by Lantra, the Sector Skills Council for Land and Environment
Aim:	The aim and purpose of this unit is to provide the learner with the knowledge, skills and understanding to carry out an aerial rescue from a tree.

Learning outcome
The learner will: 1. Be able to promote health and safety and industry good practice
Assessment criteria
The learner can: 1.1 identify the **hazards and risks** associated with the working area and the proposed work 1.2 work in a way which promotes health and safety, is consistent with relevant legislation and industry good practice 1.3 use access and tree climbing equipment and personal protective equipment (PPE)

Range
Hazards and risks 3 hazards and the associated risks with the working area. 3 hazards and the associated risks with the proposed work.

Learning outcome
The learner will: 2. Be able to carry out aerial rescue operations
Assessment criteria
The learner can: 2.1 perform a **hazard evaluation** of the tree and Work at Height assessment prior to commencing the work 2.2 inspect access equipment to ensure it is safe and fit for use under manufacturer's instructions and relevant legislation 2.3 use access and positioning methods appropriate to the assessed risks 2.4 identify the **rescue technique** appropriate to the nature of the incident 2.5 prepare a rescue plan 2.6 implement the rescue plan 2.7 use appropriate positioning techniques in the tree 2.8 communicate appropriately throughout.

Range
Hazard evaluation 6 hazards of the tree **Rescue technique** Must do both: • Rope not long enough to descend • Pole/spike rescue The casualty must be at least 5 metres from the ground

Learning outcome
The learner will: 3. Understand relevant health and safety legislation and industry good practice
Assessment criteria
The learner can: 3.1 explain the **risk assessment process** 3.2 outline the **emergency planning procedures** relevant to the work area 3.3 summarise current **health and safety legislation and industry good practice**

3.4	explain the **importance of inspecting equipment** following an aerial rescue

Range
Risk assessment process Five steps to risk assessment **Emergency planning procedures** State 5 emergency procedures **Health and safety legislation and industry good practice** Lifting Operations and Lifting Equipment Regulations 1998 (LOLER) The Provision and Use of Work Equipment Regulations 1998 (PUWER) Work at Height Regulations 2005 Aboricultural Forestry Advisory Guides (AFAG) **importance of inspecting equipment** 2 reasons

Learning outcome
The learner will: 4. Understand how to carry out aerial rescue operations
Assessment criteria
The learner can: 4.1 explain when it would be appropriate to contact the emergency services 4.2 explain how to report the incident in line with organisational requirements 4.3 explain the key elements of a rescue plan prior to starting work 4.4 describe **different rescue methods** 4.5 describe when **aerial rescue by climbing would not be appropriate** 4.6 explain how to carry out a mobile elevated work platform (MEWP) rescue 4.7 explain the implications on a MEWP's safe working load limit during aerial rescue 4.8 explain how species, condition of trees and time of year affect rescues

Range
Different rescue methods 2 additional rescue methods to those demonstrated:

- rope long enough,
- rope too short/damaged,
- belayed
- pole/spike rescue
- Mobile Elevated Work Platforms MEWP.

Aerial rescue by climbing would not be appropriate

2 reasons.

Unit 541 Carry out aerial rescue operations

Supporting information

Guidance

Simulation will not be acceptable where the unit is included in qualifications which verify competent performance. Please refer to Lantra's Assessment Strategy for further guidance.

Unit 547 Plan, allocate and monitor work of a team

UAN:	**Y/600/9669**
Level:	Level 3
Credit value:	5
GLH:	25
Relationship to NOS:	This unit is linked to Trees and Timber NOS
Endorsement by a sector or regulatory body:	This unit is endorsed by Lantra, the Sector Skills Council for Land and Environment

Learning outcome
The learner will: 1. Be able to plan work for a team
Assessment criteria
The learner can: 1.1 agree team objectives with own manager 1.2 develop a plan for a team to meet agreed objectives, taking into account capacity and capabilities of the team

Learning outcome
The learner will: 2. Be able to allocate work across a team.
Assessment criteria
The learner can: 2.1 discuss team plans with a team 2.2 agree work allocation and SMART (Specific, Measurable, Achievable, Realistic and Time-bound) objectives with team members 2.3 agree standard of work required by team.

Learning outcome
The learner will: 3. Be able to manage team members to achieve team objectives
Assessment criteria
The learner can: 3.1 support all team members in order to achieve team objectives.

Learning outcome
The learner will: 4. Be able to monitor and evaluate the performance of team members
Assessment criteria
The learner can: 4.1 assess team members' work against agreed standards and objectives 4.2 identify and monitor conflict within a team 4.3 identify causes for team members not meeting team objectives.

Learning outcome
The learner will: 5. Be able to improve the performance of a team
Assessment criteria
The learner can: 5.1 identify ways of improving team performance 5.2 provide constructive feedback to team members to improve their performance 5.3 implement identified ways of improving team performance.

Unit 547 Plan, allocate and monitor work of a team

Supporting information

Guidance

Simulation will not be acceptable where the unit is included in qualifications which verify competent performance. Please refer to Lantra's Assessment Strategy for further guidance.

Appendix 1 Relationships to other qualifications

Links to other qualifications

Mapping is provided as guidance and suggests areas of commonality between the qualifications. It does not imply that candidates completing units in one qualification have automatically covered all of the content of another.

Centres are responsible for checking the different requirements of all qualifications they are delivering and ensuring that candidates meet requirements of all units/qualifications.

Literacy, language, numeracy and ICT skills development

These qualifications can develop skills that can be used in the following qualifications:

- Functional Skills (England) – see **www.cityandguilds.com/functionalskills**
- Essential Skills (Northern Ireland) – see **www.cityandguilds.com/essentialskillsni**
- Essential Skills Wales – see **www.cityandguilds.com/esw**

Appendix 2 Sources of general information

The following documents contain essential information for centres delivering City & Guilds qualifications. They should be referred to in conjunction with this handbook. To download the documents and to find other useful documents, go to the **Centres and Training Providers homepage** on **www.cityandguilds.com**.

Centre Manual - Supporting Customer Excellence contains detailed information about the processes which must be followed and requirements which must be met for a centre to achieve 'approved centre' status, or to offer a particular qualification, as well as updates and good practice exemplars for City & Guilds assessment and policy issues. Specifically, the document includes sections on:

- The centre and qualification approval process
- Assessment, internal quality assurance and examination roles at the centre
- Registration and certification of candidates
- Non-compliance
- Complaints and appeals
- Equal opportunities
- Data protection
- Management systems
- Maintaining records
- Assessment
- Internal quality assurance
- External quality assurance.

Our Quality Assurance Requirements encompasses all of the relevant requirements of key regulatory documents such as:

- Regulatory Arrangements for the Qualifications and Credit Framework (2008)
- SQA Awarding Body Criteria (2007)
- NVQ Code of Practice (2006)

and sets out the criteria that centres should adhere to pre and post centre and qualification approval.

Access to Assessment & Qualifications provides full details of the arrangements that may be made to facilitate access to assessments and qualifications for candidates who are eligible for adjustments in assessment.

The **centre homepage** section of the City & Guilds website also contains useful information such on such things as:

- **Walled Garden**: how to register and certificate candidates on line
- **Events**: dates and information on the latest Centre events
- **Online assessment**: how to register for GOLA/e-volve assessments.

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Useful contacts

UK learners **General qualification information**	**T: +44 (0)844 543 0033** **E: learnersupport@cityandguilds.com**
Centres Exam entries, Certificates, Registrations/enrolment, Invoices, Missing or late exam materials, Nominal roll reports, Results	T: +44 (0)844 543 0000 F: +44 (0)20 7294 2413 E: **centresupport@cityandguilds.com**
Single subject qualifications Exam entries, Results, Certification, Missing or late exam materials, Incorrect exam papers, Forms request (BB, results entry), Exam date and time change	T: +44 (0)844 543 0000 F: +44 (0)20 7294 2413 F: +44 (0)20 7294 2404 (BB forms) E: **singlesubjects@cityandguilds.com**
International awards Results, Entries, Enrolments, Invoices, Missing or late exam materials, Nominal roll reports	T: +44 (0)844 543 0000 F: +44 (0)20 7294 2413 E: **intops@cityandguilds.com**
Walled Garden Re-issue of password or username, Technical problems, Entries, Results, e-assessment, Navigation, User/menu option, Problems	T: +44 (0)844 543 0000 F: +44 (0)20 7294 2413 E: **walledgarden@cityandguilds.com**
Employer Employer solutions, Mapping, Accreditation, Development Skills, Consultancy	T: +44 (0)121 503 8993 E: **business@cityandguilds.com**
Publications Logbooks, Centre documents, Forms, Free literature	T: +44 (0)844 543 0000 F: +44 (0)20 7294 2413

If you have a complaint, or any suggestions for improvement about any of the services that we provide, email: **feedbackandcomplaints@cityandguilds.com**

About City & Guilds

As the UK's leading vocational education organisation, City & Guilds is leading the talent revolution by inspiring people to unlock their potential and develop their skills. We offer over 500 qualifications across 28 industries through 8500 centres worldwide and award around two million certificates every year. City & Guilds is recognised and respected by employers across the world as a sign of quality and exceptional training.

City & Guilds Group

The City & Guilds Group operates from three major hubs: London (servicing Europe, the Caribbean and Americas), Johannesburg (servicing Africa), and Singapore (servicing Asia, Australia and New Zealand). The Group also includes the Institute of Leadership & Management (management and leadership qualifications), City & Guilds Land Based Services (land-based qualifications), the Centre for Skills Development (CSD works to improve the policy and practice of vocational education and training worldwide) and Learning Assistant (an online e-portfolio).

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