Annex to Horticulture / Landscape Operative Assessment Plan

Training Specification

Contents

1 Introduction

This document sets out in detail the competencies in the horticulture / landscape operative apprenticeship standard and to give more information on assessment and training to support the assessment plan. This can be used by training providers, assessment organisations and employers involved with the apprenticeship. It has been written by employers supported by both training and assessment providers, and explains in detail their aspirations for a horticulture / landscape operative apprentice.

This information will be made freely and readily available and it is hoped it will be a guide for the development and assessment of the apprentice on-programme and for the development and delivery of the end point assessments.

Ideas and information are included to help employers and training providers structure the portfolio undertaken by the apprentice on-programme that should be completed before starting the end point assessment. There is also additional information on the end point assessments and how these might be delivered and a list of indicative technical content that aims to help all parties understand the apprenticeship standard in more detail.

2 On-programme Assessment

On programme work is not formally assessed for the apprentice's final outcome, however, it is vital to collect evidence to inform trainers and employers of when the apprentice is ready to pass through the gateway to end-point assessment. The apprentice is strongly recommended to complete a portfolio of evidence that meets the requirements of the training specification and the apprenticeship standard. The portfolio will be used as formative assessment (informal assessment to aid and inform the learning process) by the employer/training provider. It also provides the basis for the professional discussion and therefore collection of some evidence is essential.

Several templates are provided in the appendices. These tools have been developed by employers and training providers to give structure to the on-programme learning and assessments. They are designed to help and are suggestions only. If the employer/provider has an existing appraisal system or learning plan, these may not be required.

Figure 1 shows how the portfolio might be developed. A template learning plan with some suggested tasks has been provided to help with planning the apprentice's experience (appendix 1). The plan and items are only suggestions and may be tailored to the specific place of work.

The elements of the portfolio are:

a) Apprentice learning journal
   The apprentice should record experiences gained through the learning journey and reflect on their development over the apprenticeship period; reviewing the impact of their activities and behaviours on (a) the business and (b) the team. In appendix 2 a suggested template has been provided for the journal for use if required. It is recommended that although the apprentice should take the lead in writing their journal, their employer and/or training provider should work with them to identify suitable items that they should cover during a given time period.

b) Written and practical tests
   These should be designed to prepare the apprentice for the end point assessment and test seasonal elements.

c) Employer appraisals
   The progress of the apprenticeship should be monitored by the employer through a performance appraisal system. This will help in confirming that the apprentice is on track to complete the learning, and agree how any issues will be addressed.

These should be as a minimum quarterly and the apprentice should be given time off the job to prepare for their appraisal. The apprentice should supply journal entries and any tests undertaken since the previous appraisal and match these to those targeted in the previous appraisal documented in the learning plan.
The appraisal should review progress against the learning plan and look at any problems with attaining targets. It should also look at the apprentice's behaviours and attitudes. A template is provided as a guide in appendix 3. A list of task can be found in the learning plan template (appendix 1).

d) Professional qualifications (as found in the Standard)
    - Emergency first aid: Level 2 award in emergency first aid at work.
    - Pesticides: Level 2 Principles of Safe Handling and Application of Pesticides Guidance OR Level 2 Award in the Safe Use of Pesticides
    - English & maths: Apprentices without level 2 English and maths must achieve level 1 and take the test for level 2.
    - To meet legislative requirements or industry standards, employers may have to ensure apprentices obtain specific evidence of training, statutory licences or approved competency cards to work or undertake activities in different parts of the sector. For example, apprentices must have appropriate evidence of training before use of abrasive wheels.

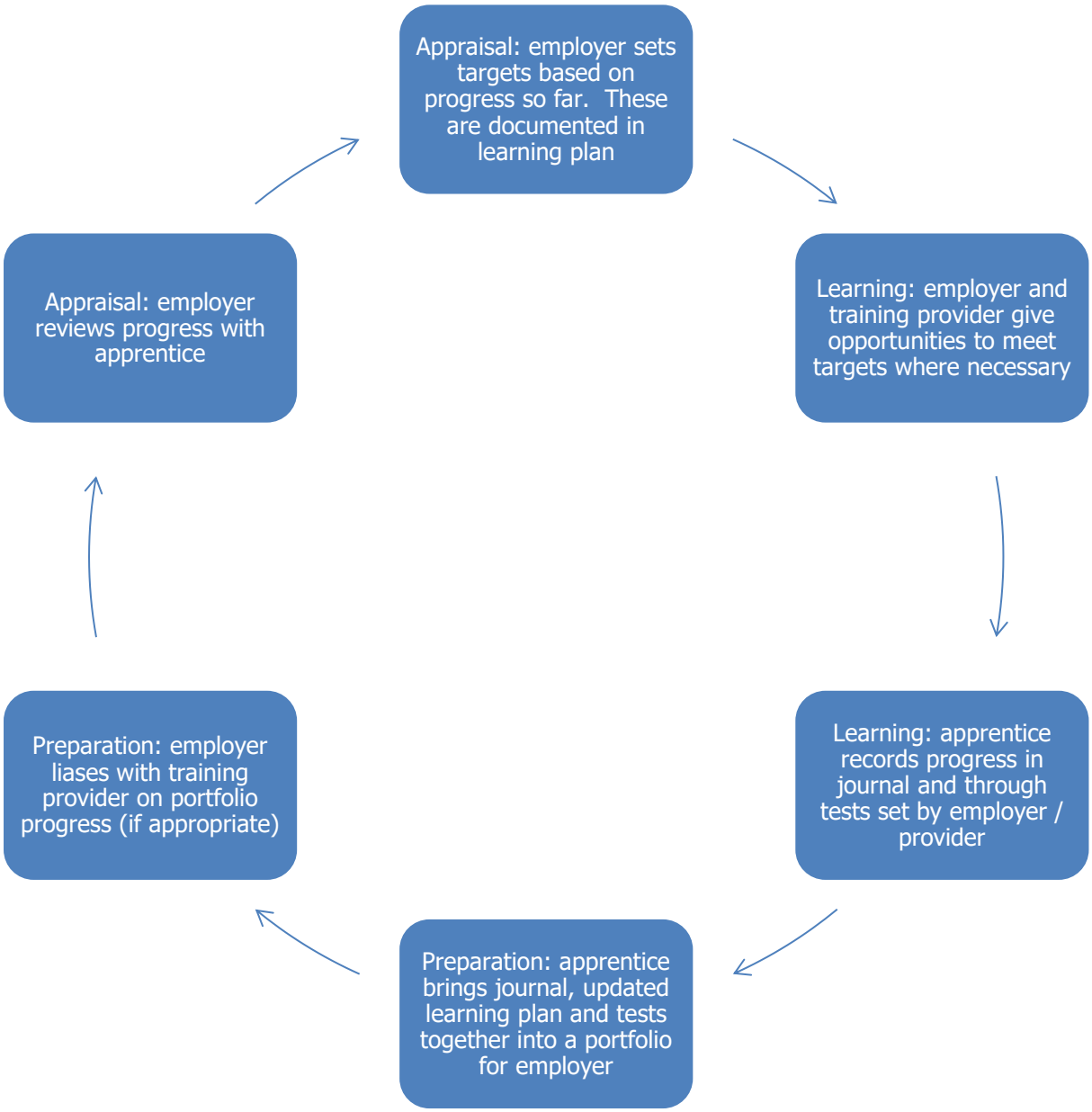

Figure 1: summary of portfolio development process

3 Indicative Content of Horticulture / Landscape Operative Apprenticeship

This section gives details of the scope of content to be covered in the teaching of the horticulture / landscape apprenticeship to ensure that all the learning outcomes can be achieved.

Table 1 shows how the units of learning described here cover the standard. In some areas, similar items are grouped together, in others items that have significant amounts of content are split apart.

Table 1: unit mapping to the standard

Key: K – Knowledge, S – Skill, B – Behaviour. Units can be found in the syllabus (section X).

Knowledge, skill and/or behaviour	**Heading from Standard**	**Unit Number(s)**
K	Industry Understanding	3
K	Business	4
K & S	Communication	2
K, S & B	Health and safety	1, 21
K & S	Environmental	7
K & S	Planting, plant growth and development	11&12
K & S	Tools, Equipment and Machinery	5&6
K & S	Vegetation Control	9
K & S	Biosecurity	13
K & S	Plant Identification	8
K	Soil Science	10
K & S	Plant Health	13
S & B	Team Working	4
S	Soil Cultivation	10
S	Maintain Hard Structures	16
K	Site Presentation	4
K & S	Landscape construction	14, 15 & 16
K & S	Horticulture	17, 18 & 19
B	Behaviours	20

Unit 1 Health & Safety

What is this unit about?

The purpose of this unit is for learners to understand the principles, and importance, of health and safety within the land-based sector, and to demonstrate its application in a real-world setting. This unit covers health and safety legalisation which provides the requirements upon which policies and procedures within the industry are based.

Working in land-based roles is exciting and varied but operating in these environments can be dangerous and present potential risks and hazards. As part of this unit learners will look at the legislation that is in place to maintain safety, the requirements for risk and COSHH assessment and how these impact on working practices.

Health, Safety, Quality and the Environment (HSQE) is stated in the Standard and this unit covers health and safety. Quality is found in the business, communication and behaviour units. Environment is a stand-alone unit.

Learning outcomes

	Learning Outcome	Topic
1	Understand the impact legislation has on land-based industries	1.1) Legislation relevant to land-based industries 1.2) Employer and employee responsibilities 1.3) Policies and procedures
2	Understand risk assessment requirements for land-based industries	2.1) Risk assessment terminology 2.2) Hazards, risks and control measures
3	Understand safe working practices when working in land-based industries	3.1) Manual handling principles 3.2) Basic first aid procedures 3.3) Fire safety principles
4	Demonstrate an understanding of workplace safety	4.1) Work to a risk assessment 4.2) Identify hazards to the environment 4.3) Know the locations of key safety documents 4.4) Demonstrate adherence to safety protocols

Learning outcome 1: understand the impact legislation has on land-based industries

Topic 1.1: legislation relevant to land-based industries

The main legislation related to the land-based sector, and where it applies.

Legislation:

- Health and Safety at Work Act (HASAW) (1974)
- Provision and Use of Work Equipment Regulations (PUWER) (1998)
- Reporting of Injuries Diseases and Dangerous Occurrences Regulations (RIDDOR) (2013)
- Control of Substances Hazardous to Health (COSHH) Regulations (2002)
- Control of Vibration at Work Regulations (2005)
- Control of Noise at Work Regulations (2005)

- Management of Health and Safety at Work Regulations (1999)
- Personal Protective Equipment Regulations (PPE) (1992)
- Regulatory Reform (Fire Safety) Order (2005)
- Environmental Protection Act (1990)
- Wildlife and Countryside Act (1981)
- Lifting Operations and Lifting Equipment Regulations (LOLER) (1998)

Please note, health and safety relating to specific tasks or processes will be covered in the relevant unit.

Topic 1.2: employer and employee responsibilities

The basics of safety law noting the following;

Employer responsibilities under health and safety regulations:

- Decide what could harm employees in their job and take precautions to stop it.
- Provide healthy work environment – washing facilities, toilets, ventilation, heating and lighting, no smoking policy, first aid
- Providing safe work environment - signage, PPE, fire safety, risk assessments, safe equipment
- Training
- Insurance
- Reporting certain accidents

Employee responsibilities under health and safety legislation:

- Responsibility for own personal health and safety
- To take reasonable care not to put the safety of other people at risk
- Co-operation with employer
- Not interfering with or misusing equipment/provisions (e.g. alarms, guarding, signage) provided for health safety and welfare
- Lines of reporting for:
    - accidents
    - faults
    - damage
- Following instructions and safe working practice – e.g. using PPE where provided
- Helping others and sharing good practice

Topic 1.3: policies and procedures

How employers meet legal requirements via;

- Health & Safety Policy
- Safety Management Systems (plan, do, check, act)
- Safety signs and safe systems of work
- Relevant training on hazards at work, measures to avoid these hazards and emergency procedures
- Evaluating competence (ability, knowledge & experience)
- Formal training / accreditation programmes (LISS, CSCS, NPORS)
- Safety Plans (CDM)

Learning outcome 2: understand risk assessment requirements for land-based industries

Topic 2.1: risk assessment terminology

Understand basic terminology, including:

- Generic risk assessment
- Site specific risk assessment
- Task specific risk assessment
- Environmental risk assessment
- Emergency action plan
- Method statement
- Hazard
- Risk
- Control measures
- Persons at risk e.g. yourself, colleagues, general public

Topic 2.2: hazards, risks and control measures

Understand the five step process when carrying out a risk assessment:

- Identifying hazards
- Deciding who might be harmed and how
- Evaluating risks, deciding on control measures
- Recording finding and implementing
- Reviewing as required

Learning outcome 3: understand safe working practices when working in land-based industries

Topic 3.1: manual handling principles

The principles of and techniques for manual handling, and consequences of not following:

- Legislative requirement
- Safe lifting techniques
- Use of mechanical aids
- Potential implications of poor manual handling
- Manual handling risk assessments

Topic 3.2: basic first aid procedures

How to respond to first aid situations, including;

- Procedures to be taken
- How and when to call for assistance
- Reporting requirements
- Own limitations when responding to first aid emergency

First aid procedures will be supported by the core qualification 'Emergency First Aid', which will be required prior to taking the end point assessment.

Topic 3.3: fire safety principles

The principles of fire safety, procedures to follow, and fire safety equipment and their uses:

- Procedures for raising the alarm
- Evacuations and drills
- Types and uses of fire safety equipment:
    - smoke detectors
    - fire alarms
    - fire extinguishers – water, dry powder, foam, CO2
    - fire blankets
    - fire hoses
- Own limitations when responding to potential fire emergency

Learning outcome 4: demonstrate an understanding of workplace safety

Topic 4.1: work to a risk assessment

Work to a risk assessment supplied by employer.

Identify further / additional hazards on the point of work risk assessment.

Topic 4.2: identify hazards to the environment

Identify and document for a task;

- Risks to the environment present as a result of works that will be taking place
- The environmental impact for each risk should an incident occur
- Control measures that can be put in place to mitigate risks

Topic 4.3: know the locations of key safety documents on site

Know the locations of the following whilst on site;

- Site specific risk assessments
- Emergency plan
- Safety law poster
- Safety policy statement

Topic 4.4: demonstrate adherence to safety protocols

For a task specific and a site specific risk assessment for works; understand the control measures that are identified in the risk assessments, and how these are implemented on site.

Unit 2 Communication

What is this unit about?

The aim of this unit is to provide the learner with the knowledge, understanding and skills required to communicate information within the workplace.

Learning outcomes

	Learning Outcome	Topic
1	Understand the principles and techniques of work-related communication	1.1) The importance of clear communication 1.2) The different forms of communication aids and their use 1.3) The value of effective and timely communication in customer care
2	Communicate work related information	2.1) Communicate with others, including clients, the public and colleagues 2.2) Use basic IT systems when communicating

Learning outcome 1: understand the principles and techniques of work-related communication

Topic 1.1: the importance of clear communication

The purposes of communication:

- To exchange information
- To make or confirm arrangements
- To make plans
- To develop skills and knowledge
- To build or maintain relationships

The level of detail required and the need for clarity.

The importance of confirming information and why this should be acknowledged and accurately recorded.

The relevant legislation in receiving and sending information.

Topic 1.2: the different forms of communication aids and their use

The different methods for communicating information and the ways it may need to be adapted to suit the audience:

- Written: letters, reports
- Electronic: emails, texts, social media and video techniques
- Verbal: telephone calls
- Face to face: meetings, presentations

The principles of effective written business communications.

The principles of effective verbal communications in a business environment.

The principles of effective IT communications in a business environment.

Topic 1.3: the value of effective and timely communication in customer care

The importance of effective communication in customer service.

How tone of voice, choice of expression and body language can affect the way customers perceive their experience.

Why 'customer service language' is used.

Verbal and non-verbal signals that show how a customer may be feeling.

The types of information needed when communicating verbally with customers.

The situations when information may be required urgently.

The importance of taking messages accurately and the potential effects of not doing so.

The situations in which confidentiality needs to be maintained.

Learning outcome 2: communicate work related information

Topic 2.1: communicate with others, including clients, the public and colleagues

Identify the information to be communicated.

Confirm that the audience is authorised to receive the information.

Provide accurate information using appropriate communication method.

Communicate in a way that the listener can understand, using language that is appropriate to the topic.

Confirm that the listener has understood what has been communicated.

Communicate clearly, concisely and professionally with customers.

Use correct grammar, spelling, sentence structure and punctuation in written communications.

Pass on messages accurately, receive and forward on information.

Identify customers' wants and priorities.

Listen 'actively' to what customers are saying.

Communicate clearly, concisely and professionally with customers.

Use a tone of voice and expression that reinforces messages when communicating with customers.

Use language that reinforces empathy with customers.

Adapt response in accordance with customers' changing behaviour.

Provide information and advice that meets customers' needs.

Maintain organisational standards of behaviour and communication when interacting with customers.

Check that customers have understood what has been communicated.

Adhere to organisational policies and procedures, legal and ethical requirements when communicating verbally with customers.

Topic 2.2: use basic IT systems when communicating

Use IT for recording works completed which might include handheld devices / computer software.

Use mobile phones for making calls.

Send / receive emails.

Unit 3 Industry understanding

What is this unit about?

The purpose of this unit is to give an understanding of the horticulture and landscape industries and their relevance in wider society.

Learning outcomes

	Learning Outcomes	Topic
1	The importance and benefits of green space	1.1) Health and well-being 1.2) Society 1.3) Economic 1.4) Environmental
2	The diversity of businesses within the horticultural industry	2.1) Types of organisation 2.2) Industry associations 2.3) Supply chain
3	Impact of climate change and seasonality on the industry	3.1) Impact on yourself, your business and clients
4	The diversity of the career opportunities within the horticultural industry	4.1) Breadth of career choices available within horticulture.

Learning outcome 1: the importance and benefits of green space

Topic 1.1: health and well-being

The benefits of green space on an individual's well-being.

Topic 1.2: society

The benefits of green space within a community

Topic 1.3: economic

The benefits the horticultural industry has for the UK

- Employment
- UK value (£)

Topic 1.4: environmental

The benefits of green space to the environment

- Sustainability
- Bio-diversity
- Wildlife
- Flora and fauna
- Climate
- Air quality

Learning outcome 2: the diversity of businesses within the horticultural industry

Topic 2.1: types of organisation

Organisational hierarchies, cultures and client bases for different types of business:

- Sole trader
- Limited company
- Partnership
- Franchise
- Chain
- Contractor
- Charity
- Local authority

Topic 2.2: industry associations

The role of trade associations and professional bodies in the industry

- Trade associations
- Professional bodies

Topic 2.3: supply chain

The importance of the supply chain and how their employer fits in.

Learning outcome 3: impact of climatic change and seasonality on the industry

Topic 3.1: impact on yourself, your business and clients

Seasonal impacts on the business the apprentice is working in, individual work opportunities and client requirements.

Learning outcome 4: the diversity of the career opportunities within the horticultural industry

Topic 4.1: breadth of career choices available within horticulture

The breadth of career choices within the horticulture and landscape construction industries.

Unit 4 Business Skills

What is this unit about?

The purpose of this unit is to give an understanding of business policies, vision and values. Workers' contribution to earning profit and awareness of commercial pressure. Understanding of how project management informs a team to achieve objectives.

Learning outcomes

	Learning Outcomes	Topic	
1	Understand your organisation	1.1)	Organisation's purpose
2	Commercial / organisational pressures	2.1)	Commercial / organisational pressures
3	Basic business skills	3.1) 3.2) 3.3)	Use IT Keep records Team working
4	How project management informs a team to achieve objectives	4.1) 4.2)	Understand what project management entails How project management informs a team's objectives
5	Site presentation	5.1) 5.2) 5.3)	Site with public use or before undertaking works Working safely on a site with public access Remove debris

Learning outcome 1: understand your organisation

Topic 1.1: organisation's purpose

Know what type of organisation you work for:

- Sole trader
- Limited company
- Partnership
- Franchise
- Chain
- Contractor
- Charity
- Local authority

Know the main way your organisation obtains income:

- Providing products and services (what)
- Grants
- Public funds

Understand your organisation's vision and values if applicable.

Learning outcome 2: commercial / organisational pressures

Topic 2.1: commercial / organisational pressures

Understand the commercial / organisational pressures:

- To undertake work at a commercial rate in a business
- To meet project deadlines in both commercial and not-for-profit organisations

Topic 2.1: work to standards

Understand:

- The required work standards
- The impact of not working to specification on the organisation

Learning outcome 3: basic business skills

Topic 3.1: use IT

Use key software packages

- Word processing
- Emails

Topic 3.2: keep records

Keep records relevant to your work

Topic 3.3: team working

Work effectively in a team:

- Understand role as part of team
- Clearly communicate views to team
- Listen to team members and work towards objective decisions
- Collaborate effectively and support other team members

Learning outcome 4: how project management informs a team to achieve objectives

Topic 4.1: understand what project management entails

- Define a project and the difference between projects and routine work
- Know that projects will have an objective, a budget, timeframes and a plan
- Understand that tasks in a project are planned so that work progresses smoothly
- Know that some tasks are dependent on other tasks having been completed

Topic 4.2: How project management informs a team's work

Understand how undertaking a task contributes to a wider project.

Know how failure to complete a task on time or to specification might impact a project's

- Plan
- Budget
- Timeframes
- Outputs (results)

Learning outcome 5: site presentation

Topic 5.1: site with public use or before undertaking works

Understand the role of all staff in keeping a site safe and well-presented for users.

Know what action to take if the following are encountered on site:

- Hazards such as wire, cables, glass and discarded needles
- Biohazards
- Injurious species of plants and insects
- Presence of unwanted animals and livestock
- Damaged features & buildings
- Damaged trees
- Animal carcasses
- Obstructions to pathways
- Environmental factors such as flooding, snow, ice, extreme weather or other physical changes to the site
- Utility services

Topic 5.2: working safely on a site with public access

Understand:

- Why work sites should safeguard public and present professional appearance
- How work sites should be left if not in use
- The risks of theft, injury or inappropriate use of unattended equipment
- Standards expected of site presentation when works are completed

Topic 5.3: remove debris

Select suitable PPE for removing debris.

Select suitable equipment for removing debris.

Remove debris and dispose of appropriately.

Unit 5 Use and maintain non-powered and hand held powered equipment

What is this unit about?

The purpose of this unit is to provide the knowledge and skills required to use and maintain non-powered equipment and hand held powered equipment. This involves selection of correct tools, equipment and machinery required for the job and the importance of maintenance / regular checks of these items to ensure they remain in good working order. Legal requirement of training by a competent person and familiarity with operator training and certification requirements.

Learning outcomes

	Learning Outcome	Topic
1	Use and maintain non-powered and powered hand held tools and equipment	1.1) Ensure equipment is safe and good working order and select correct PPE 1.2) Use / maintain equipment in accordance with manufacturer's instructions and legal requirements 1.3) Identify any problems with the equipment and take appropriate action and clean/store equipment after use
2	Work safely and minimise environmental damage	2.1) Work safely and minimise environmental damage/dispose of waste

Learning outcome 1: use and maintain non-powered and powered hand held tools and equipment

Topic 1.1: ensure equipment is safe and good working order and select correct PPE

Carry out pre-start checks to tools and equipment/select correct PPE to include:

- Immobilisation of powered equipment prior to checks
- Safety guards/switches/pull start
- Correct fuel used
- Moving parts/hot surfaces/security of fixings
- Appropriate PPE selected and used
- Hazards and risks with the equipment being used
- Follow manufacturer's instructions in accordance with operator's handbook

Topic 1.2: use/maintain equipment in accordance with manufacturer's instructions and legal requirements

Use and maintain the equipment to include:

- Comply with relevant legislation e.g. Provision and Use of Work Equipment Regulations (PUWER) (1998)
- The importance of the manufacturer's instructions in maintenance of equipment
- Follow manufacturer's instructions in accordance with operator's handbook
- Correct/safe use and storage of the tools/equipment on site
- Prevention of trip hazards

- Manual handling
- Basic tool, machine maintenance and adjustments to be carried out on the tools/equipment
- Well maintained hand tools are safer to use and defective tools should be repaired or not used.
- Problems that occur and actions to take if identified
- Hazards and risk of use e.g. Hand Arm Vibration (HAVs)

Topic 1.3: identify any problems with the equipment and take appropriate action and clean/store equipment after use

Identify basic problems and cleaning/storing the equipment including:

- Guards/switches not working
- Visual check security of fixings/wiring/cables
- Routine maintenance/levels/filters/blades/tyres
- Appropriate person for advice
- Correct cleaning/storage of tools/equipment
- Complete use log for service interval items

Learning outcome 2: work safely and minimise environmental damage.

Topic 2.1: work safely and minimise environmental damage/dispose of waste

Minimise environmental damage and dispose of waste while working to include:

- Noise pollution
- Hazardous/non-hazardous waste disposal
- Removal of only selected vegetation
- Immobilisation of unattended equipment

Unit 6 Use and maintain pedestrian controlled powered equipment

What is this unit about?

The purpose of this unit is to provide the learner with the knowledge and skills required to use and maintain pedestrian controlled powered equipment.

Learning outcomes

	Learning Outcome	Topic
1	Use and maintain pedestrian controlled powered equipment	1.1) Ensure equipment is safe and in good working order and select correct PPE 1.2) Use and maintain equipment in accordance with manufacturer's instructions and legal requirements 1.3) Identify any problems with the equipment and take appropriate action clean and store equipment after use
2	Work safely and minimise environmental damage	2.1) Working safely, minimise environmental damage and dispose of waste

Learning outcome 1: use and maintain pedestrian controlled powered equipment

Topic 1.1: ensure equipment is safe and good working order and select correct PPE

Carry out pre-start checks to tools and equipment/select correct PPE to include:

- Immobilisation of powered equipment prior to checks
- Safety guards/switches/pull start
- Correct fuel used
- Height of cut/depth of cultivation
- Quality of cut/cultivation
- Moving parts/hot surfaces/security of fixings
- Appropriate PPE selected and used
- Hazards and risks with the equipment
- Follow manufacturer's instructions in accordance with operator's handbook

Topic 1.2: use and maintain equipment in accordance with manufacturer's instructions and legal requirements

Use and maintain the equipment to include:

- The importance of the manufacturer's instructions in maintenance of equipment
- Follow manufacturer's instructions in accordance with operator's handbook
- Correct/safe use of the equipment on site
- Basic machine maintenance/adjustment to be carried out on the equipment
- Problems which may occur and action to take if identified
- Hazards and risks with the equipment being used
- Comply with relevant legislation e.g. Provision and Use of Work Equipment Regulations (PUWER) (1998)

Topic 1.3: identify any problems with the equipment and take appropriate action and clean/store equipment after use

Identify basic problems and cleaning/storing the equipment including:

- Guards/switches not working
- Visual check security of fixings/wiring/cables
- Routine maintenance/levels/filters/blades/tyres
- Appropriate person for advice
- Correct cleaning/storage of equipment
- Complete use log for service interval items

Learning outcome 2: work safely and minimise environmental damage

Topic 2.1: work safely, minimise environmental damage and dispose of waste

Minimise environmental damage and dispose of waste to include:

- Noise pollution
- Hazardous/non-hazardous waste disposal
- Removal of only selected vegetation
- Immobilisation of unattended equipment
- Safe transportation of equipment between work areas

Unit 7 Environment Protection

What is this unit about?

The purpose of this unit is for learners to understand their role within environment protection including pollution, protected species and invasive species.

Learning outcomes

	Learning Outcome	Topic
1	Environmental Protection	1.1) Sources of pollution in horticulture 1.2) Pollution prevention 1.3) Waste control
2	Protected species	2.1) Horticultural effects on protected species 2.2) Legislation and protected species designation 2.3) Actions required when protected species are identified 2.4) Horticultural operation which could affect protected species
3	Invasive species	3.1) Recognition and damage to the environment by invasive species 3.2) Horticultural operations which could cause further spread of invasive species 3.3) Actions required if invasive species are identified

Learning outcome 1: environmental protection

Topic 1.1: sources of pollution in horticulture

Identify sources of pollution i.e. fuel, oils, pesticide, rotting vegetation, and fertilizers entering ground water, streams and ponds.

Know how horticultural operation can cause pollution and damage to the environment, such as re-fuelling of machinery, leaking fuel tanks, oil tanks and spilt pesticide.

Topic 1.2: pollution prevention

Store fuels, oils and pesticides in secure bunded store which prevents leaks.

Use of a spill kit when required on horticultural sites.

Storage of biodegradable waste to prevent leaking in to the environment.

Topic 1.3: waste control

Identify waste controls and the waste hierarchy:

- Prevention of waste
- Reuse of waste
- Recycling of waste
- Safe and legal disposal of waste

Understand role within the waste hierarchy and its effects on horticulture, including legislation.

Learning outcome 2: protected species

Topic 2.1: horticultural effects on protected species

Identify protected species which will affect horticultural operations, and take actions required to ensure the species are not disturbed.

Topic 2.2: legislation and protected species designation

Understand the effects of the protected species legislation and how this affects horticultural operations including working with an environmental risk assessment.

Topic 2.3: actions required when protected species are identified

Take actions to ensure the protected species and not disturbed by horticultural operations, including setting up exclusion zones, and reporting to supervisors or managers.

Topic 2.4: horticultural operation which could affect protected species

Know which operations could affect protected species including grass cutting, tree, shrub and hedge pruning, working near water, and vegetation control operations.

Learning outcome 3: invasive species

Topic 3.1: recognition and damage to the environment by invasive species

Identify invasive species during horticultural operations.

Understand responsibilities in reporting and isolating these species.

Understand potential damage to the landscape environment and loss of biodiversity and human health risks.

Topic 3.2: horticultural operations which could cause further spread of invasive species

Identify horticultural operation which could cause further spread of invasive species, such as soil cultivation, vegetation control, strimming and mowing.

Identify and prevent contact with species which cause human health risks, such as giant hogweed, and brown tail moth.

Topic 3.3: actions required if invasive species are identified

Prevent further spread of invasive species such as isolating the area and briefing work colleagues of its presence.

Prevent contact with species which causes human health risks, by wearing appropriate PPE.

Unit 8 Plant identification and nomenclature

What is this unit about?

The purpose of this unit to know how to identify plants using scientific and common names. A good understanding of plant identification underpins many tasks that a horticulture operative will undertake.

Learning outcomes

	Learning Outcome	Topic
1	The terminology used in plant identification	1.1) Scientific names 1.2) Plant characteristics 1.3) Plant lifecycles
2	How the parts of plants can aid identification	2.1) Plant identification
3	Identify plants using scientific names	3.1) Identify plant using scientific names

Learning outcome 1: the terminology used in plant identification

Topic 1.1: scientific names

Know the following terms using the binomial system

- Family
- Genus
- Species
- Subspecies, variety
- Cultivar
- Hybrid

Understand the purpose and importance of scientific names, why they are reclassified, and how they can aid identification.

Topic 1.2: plant characteristics

The terms that describe plant characteristics:

- Monocotyledons
- Dicotyledons
- Evergreen
- Deciduous
- Hardy
- Tender
- Annuals
- Biennials
- Herbaceous perennials
- Woody perennial

Topic 1.3: plant lifecycles

Know the terms that describe the lifecycles of a plant. Learners will be able to identify 25 plants from each of the following categories to common and scientific name:

- Weeds and invasive species
- Plants grown for seasonal display
- Herbaceous perennials and grasses
- Trees and shrubs

Learning outcome 2: how the parts of a plant can aid identification

Topic 2.1: plant identification

Understand how a plant's characteristics can aid identification; and the ways in which plant anatomy and plant morphology aid identification:

- Flowers
- Seeds and fruit
- Stems
- Leaves
- Roots
- Buds

Learning outcome 3: identify plants using scientific names

Topic 3.1: identification of plants using scientific names

Identify and name plants using reference materials and the characteristics of the plants:

- Habit
- Leaves
- Stems
- Flowers
- Buds
- Seeds and fruit

Use the correct format when writing down scientific names following the International Code of Nomenclature for Algae, Fungi and Plants (Melbourne Code).

Unit 9 Vegetation control

What is this unit about?

The purpose of this unit is for learners to understand the need for vegetation control, and the detrimental effects of not controlling plants. This unit covers removal of whole plants, not formative pruning that can be found under Plant Establishment and Maintenance. This unit covers control of vegetation using hand tools, machinery, and chemical control methods.

Learning outcomes

	Learning Outcome	Topic	
1	Know when vegetation control is required	1.1)	Types of vegetation, identification, and reasons for removal
2	Know the methods and equipment used to control plant development	2.1) 2.2) 2.3)	Methods used to control vegetation Chemicals used to control vegetation, when they are used and the method of application Equipment used to control vegetation and when used
3	Be able to remove unwanted plant growth and unwanted plants	3.1) 3.2) 3.3)	Selection and use of equipment Site preparation Control vegetation

Learning outcome 1: know when vegetation control is required

Topic 1.1: types of vegetation, identification, and reasons for removal

Types of vegetation that need to be controlled:

- Damaged plants
- Diseased materials
- Weeds
- Plant debris
- Non typical
- Dead
- Invasive non-native and native species

Growth that requires control:

- Excessive growth
- Badly positioned
- Interfering with footpaths
- Utilities infrastructure
- Health and safety
- Sight lines
- Fire hazard
- Obstructing drainage infrastructure

Sites or ornamental areas on which vegetation needs to be controlled:

- Green field
- Reclaimed
- Urban derelict
- Existing gardens or ornamental areas
- Transport infrastructure
- Energy networks infrastructure
- Telecoms infrastructure
- Development sites

Learning outcome 2: know the methods and equipment used to control vegetation

Topic 2.1: methods used to control vegetation

Know methods used to remove unwanted vegetation and when they are used

- Trimming
- Mechanical methods
- Hand held tools
- Hand held powered equipment
- Self-powered
- Growth regulators
- Plant protection products

Topic 2.2: chemicals used to control vegetation, when they are used and the method of dispersal

Know chemicals used to control vegetation, when they are used and the consequences of using chemicals incorrectly:

- Integrated weed management

- Plant protection products:
    - Translocated
    - Systemic
    - Contact
    - Residual
    - Selective
    - Pre emergence / post emergence
    - Spray
    - Stem injection
    - Eco plug stump treatment
    - Granular

Topic 2.3: Equipment used to control vegetation and when used

Know equipment to use in the control of vegetation, and how to use and maintain the equipment:

- Hand held spray applicators
- Hand held powered equipment
- Stem injectors
- Eco plugs installation equipment
- Self-powered spray equipment

Learning outcome 3: prepare site and control vegetation

Topic 3.1: selection of equipment to use in the control of the vegetation

Select equipment to use in control of vegetation:

- Trimming
- Mechanical methods
- Hand held tools
- Hand held powered equipment
- Self-powered
- Growth regulators
- Plant protection products

Topic 3.2: site preparation

Prepare the site ready to control vegetation:

- Site checks for hazards i.e. wire, cables, glass and discarded needles
- Environment checks for nesting birds and roosting bats
- Hazards from overhead services, underground services and surface positioned structures or services
- Check for injurious species of plants and insects
- Exclusion of animals, livestock and humans

Topic 3.3: control vegetation

Control vegetation on the site following standard safety procedures and working in a way that minimises the impact on the environment

Unit 10 Soil Science and Cultivation

What is this unit about?

The purpose of this unit is to understand soil science and how to prepare the ground for establishing plants. Ground preparation may cover the use of both hand tools and powered machinery. Amelioration of growing media and soils is included.

Learning outcomes

	Learning Outcome	Topic
1	Select, use and maintain equipment	1.1) Tools and equipment
2	Prepare ground for seeding and planting	2.1) Ground preparation
3	Work safely and minimise environmental damage	3.1) Working safely
4	Understand cultivation practice required for new planting on a range of sites	4.1) Cultivation practice required for new planting
5	Chemical properties of soils/fertilisers	5.1) Understand the chemical properties of soils and fertilisers

Learning outcome 1: select, use and maintain equipment

Topic 1.1: tools and equipment

Select appropriate equipment for this area of work.

Use equipment according to instructions.

Prepare, maintain and store equipment in a safe and effective working condition throughout.

Learning outcome 2: prepare ground for seeding and planting

Topic 2.1: ground preparation

Prepare the ground in a way that is appropriate to the plants/seeds being established, the soil type and ground conditions.

Add the materials specified for the operation (it may be compost, fertiliser or sand).

Produce the required tilth for the specified finish.

Clear debris from the site effectively and safely.

Identify the horizons in a soil profile.

Analyse samples of soil to determine:

- Textural class
- pH

Learning outcome 3: work safely and minimise environmental damage

Topic 3.1: working safely

Work in a way which maintains health and safety and is consistent with current legislation, codes of practice and any additional requirements.

Carry out work in a manner which minimises environmental damage.

Dispose of waste safely and correctly.

Learning outcome 4: understand cultivation practice required for new planting on a range of sites

Topic 4.1: cultivation practice required for new planting

Know the different clearance and minor levelling methods which can be used for:

- Green-field
- Urban derelict
- Reclaimed land
- Existing gardens

How to achieve the correct tilth, consolidation, pH and nutrient levels depending on the use and finish.

Where and when composts, fertilisers and other materials should be used and the types of that are appropriate.

How preparation may be affected by type of plants/seeds, soil type, ground and weather conditions and type of site.

The unwanted impacts to a site which might occur when preparing ground and how to avoid them.

Why it is important to clear debris effectively, safely, tidily and legally.

Learning outcome 5: chemical properties of soils/fertilisers

Topic 5.1: understand the chemical properties of soils and fertilisers

The formation, characteristics, texture and component parts of soils.

How soil structure and the balance of soil air and water affect the growth of plants.

Factors relating to soil water; sources, availability, effects on various soil types and terms associated with the water balance.

How organic matter and soil organisms contribute to soil structure and fertility.

How common nutrient deficiencies can affect plant growth.

Unit 11 Plant Establishment and Maintenance

What is this unit about?

The purpose of this unit is to provide learners with the skills, knowledge and understanding required to successfully establish seeds, plants and turf in a horticultural environment, and to maintain them over a period of time

Learning outcomes

	Learning Outcome	Topic
1	Establish plants from seed in open ground	1.1) Sow seeds in open ground 1.2) Apply appropriate aftercare to ensure germination of seeds 1.3) Select, use and maintain the appropriate tools for the task
2	Lay out and plant in open ground	2.1) Lay out plants 2.2) Plant plants 2.3) Aftercare of plants
3	Establish lawn areas from turf	3.1) Seed vs turf 3.2) Establishment of lawns from turf and seed 3.3) Aftercare of new lawn areas
4	Maintain moisture and nutrient levels for plants	4.1) Moisture and nutrient requirements at different stages of a plant's development 4.2) Methods of maintaining water levels 4.3) Impact of weather conditions on crop needs for moisture 4.4) Record keeping
5	Prune a variety of plants	5.1) Reasons for pruning 5.2) Methods of pruning 5.3) Timing for pruning
6	Knowledge of garden compost production	6.1) Principles of processing organic matter into garden compost

Learning outcome 1: establish plants from seed in open ground

Topic 1.1: sow seeds in open ground

Sow seeds of differing sizes in open ground. Know how the planting method affects germination success. Be able to:

- Prepare seed drill
- Station sowing
- Drill sowing
- Broadcast sowing
- Control planting depth
- Mark sown seeds
- Cover seed

Understand the Health and Safety implications of seed sowing and the following issues:

- Treated seeds

- Use of tools
- Designation of working area
- Moving around the work space

Topic 1.2: apply appropriate aftercare to ensure germination of seeds

Care for planted seeds to maximise success rates. Understand the following techniques:

- Irrigation of newly planted seeds
- Thinning
- Avoidance and treatment of pests and diseases

Topic 1.3: select, use and maintain the appropriate tools for the task

Select, use and maintain the correct tools to use for the above tasks.

Learning outcome 2: lay out and plant in open ground

Topic 2.1: lay out plants

Lay out plants to a supplied brief including correct spacing.

Complete this task safely and efficiently with minimal damage to the ground and surrounding area.

Topic 2.2: plant container grown and bare root plants

Plant a variety of plants with differing establishment requirements.

Understand the importance of seasonality and climate on planting requirements.

Plant the following efficiently and successfully:

- Bedding plants
- Vegetable transplants
- Perennials
- Shrubs
- Trees
- Bulbs, corms or tubers

Understand the differences in planting methods for the above categories of plants in relation to:

- Longevity and lifecycle
- Habit
- Speed of establishment
- Horticultural context
- Bare root or containerised
- Nursery line / pre-treatment of rootball

Topic 2.3: aftercare of plants

Care for newly established plants in the weeks following planting.

Carry out:

- Irrigation
- Feeding
- Protection and pest control
- Mulching
- Formative pruning
- Vegetation control
- Plant support

Learning outcome 3: establish lawn areas from turf

Topic 3.1: seed vs turf

The differences between establishing lawns from seed and turf for the following considerations:

- Speed
- Species selection
- Pests and diseases
- Resource and time requirement
- Sourcing and reliability
- Cost

Topic 3.2: establishment of lawns from turf and seed

Establish a lawn from turf and seed. Be able to:

- Successfully prepare ground
- Apply seed to the surface
- Consolidate seed for growth
- Lay turf neatly and minimise wastage
- Topdress and finish

Topic 3.3: aftercare of new lawn areas

Care for grass seed and turf in the weeks after its establishment to maximise success. Understand:

- Irrigation
- Feeding
- Pest/disease control and protection from deficiencies
- Minimisation of traffic
- Mowing
- Rolling to encourage tillering

Learning outcome 4: maintain moisture and nutrient levels for plants

Topic 4.1: moisture and nutrient requirements at different stages of a plant's development

Water and feed plants at different stages of their development:

- Seedling
- Transplant
- Established
- Mature
- Critical irrigation stages of growth

Topic 4.2: methods of maintaining water levels

Know the different methods of watering:

- Watering can
- Hosepipe
- Capillary matting
- Trickle irrigation
- Sprinkle irrigation

The importance of mulching at the correct time to conserve water usage.

Awareness of water saving techniques such as rain water harvesting.

Topic 4.3: impact of weather conditions on crop needs for moisture

The effects of weather conditions on plant development and be able to keep records of statistics:

- Light levels
- Temperature
- Wind
- Rain / drought

Topic 4.4: record keeping

Record irrigation routines for cropping areas and ensure that these are kept up to date.

Learning outcome 5: prune a variety of plants

Topic 5.1: reasons for pruning

Know why it is necessary to prune a variety of trees, shrubs and climbing plants:

- Formative pruning: creating the correct shape at planting stage
- Removal of dead, diseased and damaged tissue
- Structural safety
- Restriction in size
- Increased flowering or fruiting
- Controlling growth
- Aesthetic appearance
- Training to a structure

Topic 5.2: methods of pruning

Prune a basic variety of trees, shrubs and perennials using the correct tools and techniques:

- Removal of material with secateurs or loppers
- Pruning saws: precise removal of tough woody stems
- Pole saws: removal of stems above head height
- Hedge cutters: trimming of dense bushy growth to create uniform surface
- Pinching out

Topic 5.3: timing for pruning

The effects of pruning at different times of the year and in different weather conditions:

- Winter pruning of trees and shrubs and climbing plants
- Spring pruning of late summer and autumn flowering shrubs
- Summer pruning of spring flowering and fruiting trees and shrubs
- Dead-heading

Learning outcome 6: knowledge of garden compost production

Topic 6.1: principles of processing organic matter into garden compost

Know types of organic matter for producing garden compost:

- Fallen leaves deciduous / evergreen / coniferous
- Green garden waste
- Shredded woody waste
- Use of animal manures

Know how to control of weed species:

- Exclusion of pernicious perennial weeds
- Turning aeration of the compost pile to generate heat to pasteurise
- Control of heap moisture to regulate organic breakdown

Know how to manage composting site:

- Use of compost bins and leaf piles
- Use of windrows, maximum height and ability to turn with machinery
- Control organic leachate
- Exclude contaminated materials
- Shredders / screens that can be used to process organic matter into garden compost
- Health and safety i.e. fire / bio aerosols/ stack stability

Unit 12 Plant Growth

What is this unit about?

This unit aims to provide learners with a basic understanding of the science behind plant growth and development.

Learning outcomes

	Learning Outcome	Topic
1	The physical structure of plants	1.1) Organs and organ modifications 1.2) Functions
2	The basic principles behind germination, photosynthesis, respiration and transpiration	2.1) Germination 2.2) Photosynthesis and respiration 2.3) Transpiration
3	The relationship between environmental conditions and plant growth	3.1) Principles affecting plant growth 3.2) Understanding plants in the environment 3.3) Modifying environments

Learning outcome 1: know the physical structure of plants

Topic 1.1: organs and organ modifications

Identify the main organs of plants and name plants which possess each organ:

- Roots
- Stems
- Leaves
- Flowers and their component parts
- Cotyledons
- Buds
- Bulbs
- Corms
- Tubers
- Fruit
- Seeds

Topic 1.2: functions

The varying functions of the organs in Topic 1.1. Identify:

- Support structures
- Climbing structures
- Vascular transport functions
- Anchorage
- Nutrient and water absorption
- Food production
- Water regulation
- Storage
- Reproduction
- Pollination
- Fruit formation
- Asexual reproduction

Learning outcome 2: the basic principles behind germination, photosynthesis, respiration and transpiration

Topic 2.1: germination

The principles of germination, seed storage and basic methods of breaking seed dormancy:

- Epigeal and hypogeal germination
- Environmental requirements for germination; moisture, temperature, rooting medium, light or dark requirement
- Scarification
- Stratification

Topic 2.2: photosynthesis and respiration

The basic principles of photosynthesis and respiration, their requirements and where they takes place:

- Chlorophyll in leaves and stems
- CO_2 and water requirements of photosynthesis
- Dark & light phase requirements of photosynthesis
- Product of photosynthesis; glucose
- The process of respiration, conversion of sugars to energy, by-products CO_2 and water
- Requirements of respiration; oxygen and photosynthates

Topic 2.3: transpiration

The basic principles of transpiration, its requirements, where in the plant it takes place and influencing factors:

- The movement of water through a plant from roots to stems to leaves to air
- Capillary action
- The result of increased air movement around a plant
- The relationship between root and leaf area in relation to transpiration and implications for irrigation requirements
- Osmosis

Learning outcome 3: understand the relationship between environmental conditions and plant growth

Topic 3.1: principles affecting plant growth

The main principles affecting plant growth, and their relationship to the functions identified in topic 1.3. Understand how the following affect plant growth:

- Light
- Water
- Nutrients
- Anchorage
- Air

Topic 3.2: understanding plants in the environment

How the elements identified within topic 3.1 can be variable within the environment and how this will therefore affect plant growth. Understand how the following may provide differing opportunities for plant growth:

- Aspect
- Shade
- Moisture availability
- Exposure
- Topography
- Soil amount and quality
- Altitude

Topic 3.3: modifying environments

The basic techniques for enhancing or influencing plant growth as used in current horticultural practice:

- Protected environments – heating & ventilation
- CO_2 enrichment
- Supplementary lighting and varying wavelengths
- Hydroponics (growing plants without soil)
- Aquaponics (growing plants in a closed system with fish)
- Sheltering (tree shelters, walls, hedges)
- Mounding
- Microclimates

The basic environmental impacts of each of the above.

Unit 13 Plant Health

What is this unit about?

The purpose of this unit is for learners to know how to identify and manage pests, diseases and disorders. They will be able to undertake biosecurity measures to prevent transmission of pests and diseases. There are an increasing number of threats to plant health that must be recognised and controlled by those working in landscape and horticulture. Measures should be taken to prevent the transmission of pests and diseases from one site to another.

Learning outcomes

	Learning Outcome	Topic
1	Identify, report and monitor the presence of pests, diseases and disorders	1.1) Pest identification and reporting 1.2) Monitor for plant health problems 1.3) Health and safety legislation and environmental good practice
2	Control pests, diseases and disorders	2.1) Control pests, diseases and disorders
3	Undertake biosecurity measures	3.1) Biosecurity measures

Learning outcome 1: identify and report the presence of pests, diseases and disorders

Topic 1.1: pest identification and reporting

The common types of pests, diseases and disorders, the problems they cause, and the biological controls and beneficial insects that can be used to control them:

- Pest, problems caused and control method used
- Disorder, problems caused and control method used
- Disease, problem caused and control method used

Who to report the presence and extent of pests, diseases, disorders and biological control/beneficial insects and what can be used.

Topic 1.2: monitor for plant health problems

The reasons for monitoring plants for health problems, and when to carry out monitoring of plants.

Monitor plants for health problems and establish the extent of the pest population, disease and any disorders

Topic 1.3: health and safety legislation and environmental good practice

Health and safety legislation, codes of practice and any additional requirements that cover the control of pests, diseases and disorders.

How environmental damage can be minimised when controlling pests, diseases and disorders.

The health and safety risks in monitoring and controlling pests, diseases and disorders.

Learning outcome 2: control pests, diseases and disorders

Topic 2.1: control pests, diseases and disorders

Select the correct control method to manage the pest, disease or disorder, using the correct equipment for the task.

Assist with applying control methods in a way that minimises the risk to non-target species and the surrounding environment using techniques such as integrated pest management.

When and to whom to report any problems during pest, disease and disorder control.

Present information about the control activity clearly and accurately for recording purposes.

Work in a way that maintains health and safety, handling all materials carefully, safely and efficiently in accordance with instructions and organisational policy, and using the equipment according to the relevant legislation and manufacturers' instructions.

Prepare, maintain and store equipment in safe and effective working condition.

Learning outcome 3: undertake biosecurity measures

Topic 3.1: biosecurity measures

Monitor for plant health problems on site.

Identify when plants are showing health problems.

Monitor plant health problems on plant materials imported into sites or horticultural operation sites.

Monitor site for notifiable species where horticultural operations could spread the problem species. Monitor for invasive species on site which could adversely affect horticultural operations and report its presence.

Carryout control of plant health problems or assist with control operations such as pesticide application and biosecurity actions.

Report the presence of adverse species which cause plant health issues or are legally required to be reported.

Undertake cleaning and sterilization of tools and equipment to maintain biosecurity.

Unit 14 Survey and mark out site for landscape features

What is this unit about?

The purpose of this unit is for learners to be able to interpret a construction drawing on site and prepare for the landscape construction to begin.

This is part of the landscape construction role.

Learning outcomes

	Learning Outcomes	Topic
1	Interpret construction drawings and specifications including site levels	1.1) Determining site orientation, standard conventions for the layout of plans 1.2) Overhead and underground hazards
2	Methods used to measure and set out a site	2.1) Selecting equipment for site surveying 2.2) Measuring and recording site details
3	Prepare to construct landscape features	3.1) Prepare the site

Learning outcome 1: interpret construction drawings and specifications including site levels

Topic 1.1: determining site orientation, standard conventions for the layout of plans

Interpretation of specifications and the importance of following them covering:

- Setting out and location
- Materials and resources
- Timescales
- Working methods
- Waste management
- Restitution of site
- The relationship of the structure and surface to its context

Topic 1.2: overhead and underground hazards

Identification of overhead and underground hazards and the importance of identifying and marking out these hazards.

- Overhead services
- Underground services

Learning outcome 2: methods used to measure and set out a site

Topic 2.1: selecting equipment for site surveying.

Selection and use of equipment:

- Tape measures
- Ranging poles/rods
- Levelling equipment

Topic 2.2: measuring and recording site details

For existing or proposed sites, marking out of boundary dimensions and irregular shapes:

- Structures
- Hard landscape features
- Vegetation
- Hazardous structure and materials
- Access points
- Access/egress
- Services and drains

Learning outcome 3: prepare to construct landscape features

Topic 3.1: prepare the site

Prepare the site in a manner appropriate for the landscape structure or surface, which minimises the effects on the surrounding environment.

- Protect species/habitat awareness
- Proximity to water courses
- Retained vegetation

Unit 15 Construct hard landscape features

What is this unit about?

The purpose of this unit is for learners to construct a range of hard landscape features safely and to a specified standard. This includes calculating resource quantities and dealing with common problems.

This is part of the landscape construction role.

Learning outcomes

	Learning Outcomes	Topic
1	Construct and install hard standing sub-base and/or foundations	1.1) Select, use and maintain equipment and tools 1.2) Install laying courses, drainage and foundations (concrete footing and stone bases)
2	Construct horizontal surfaces	2.1) Types and uses 2.2) Common problems and how to overcome them 2.3) Resource quantities needed 2.4) Construct horizontal surface
3	Construct vertical surfaces	3.1) Types and uses 3.2) Common problems and how to overcome them 3.3) Resource quantities needed 3.4) Construct vertical surfaces
4	Construct water features	4.1) Types and uses 4.2) Common problems and how to overcome them 4.3) Resource quantities needed 4.4) Construct water surfaces

Learning outcome 1: construct and install hard standing sub-base and/or foundations

Topic 1.1: select, use and maintain equipment and tools

Select, use and maintain appropriate equipment and tools for the task:

- Select equipment and tools ensuring they are safe for use
- Select and wear appropriate PPE
- Operate in line with manufacturers instructions
- Identify problems and take appropriate action
- Prepare the equipment, checking it is in a safe and effective condition throughout
- Reporting of hazards

Topic 1.2: install laying courses, drainage and foundations (concrete footing and stone bases)

Install laying courses, drainage and foundations for hard landscape features.

Learning outcome 2: construct horizontal surfaces

Topic 2.1: types and uses

Construct a range of horizontal surfaces in accordance with specification:

- Decking
- Paving
- Paths – hard and soft
- Block paving

Topic 2.2: common problems and how to overcome them

Common problems with constructing horizontal surfaces and how to overcome them

- Drainage
- Slopes
- Underground hazards
- Existing structures
- Existing vegetation

Topic 2.3: resource quantities needed

Calculate resources needed based on the design specification:

- Quantify amount of materials needed

Topic 2.4: construct horizontal surface

Construct decking, paving or other horizontal surfaces:

- Select Personal Protective Equipment (PPE) to be used
- Select the most appropriate tools and equipment to be used
- Know legal requirements for training in the use of abrasive wheels
- Keep the route and dimensions within tolerances specified
- Lay and support surface materials correctly and securely
- Ensure drainage is effective
- Construct efficiently, effectively and securely
- Ensure the appearance and condition is fit for purpose following construction.
- Clean all tools and equipment
- Return all tools and equipment
- Dispose of all waste appropriately and legally

Learning outcome 3: construct vertical surfaces

Topic 3.1: types and uses

Identify a range of materials and their uses for constructing a range of vertical surfaces

- Walls and pillars
- Timber
- Fencing

Topic 3.2: common problems and how to overcome them

Describe common problems with constructing vertical surfaces and how to overcome them:

- Unstable ground, slopes etc.
- Drainage
- Overhead hazards
- Disposal of waste

Topic 3.3: resource quantities needed

Calculate all resources needed based on the design specification

Topic 3.4: construct vertical surfaces

Construct vertical surfaces:

- Select Personal Protective Equipment (PPE) to be used
- Select the most appropriate tools and equipment to support construction
- Demonstrate the tasks required to construct the vertical surface
- Construct efficiently, effectively and securely
- Check that finished build meets specification
- Clean all tools and equipment
- Return all tools and equipment
- Dispose of all waste appropriately

Learning outcome 4: construct water feature

Topic 4.1: types and uses

Identify a range of materials and their uses for constructing a range of water features

- Lining
- Installation of fixtures and fittings
- Power supplies

Topic 4.2: common problems and how to overcome them

Describe common problems with constructing water features and how to overcome them

- Leaking
- Underground hazards
- Existing vegetation
- Levels
- Safe installation

Topic 4.3: resource quantities needed

Calculate all resources needed based on the design specification.

Topic 4.4: construct water features

Construct water features:

- Select Personal Protective Equipment (PPE) to be used
- Select the most appropriate tools and equipment to support construction
- Demonstrate the tasks required to construct the water feature
- Construct efficiently, effectively and securely
- Check that finished build meets specification
- Clean all tools and equipment
- Return all tools and equipment
- Dispose of all waste appropriately

Unit 16 Maintain hard landscape features

What is this unit about?

The purpose of this unit is to demonstrate the knowledge, understanding and skills required to maintain hard landscape features.

This is part of the landscape construction role.

Learning outcomes

	Learning Outcomes	Topic
1	Maintain hard landscape surfaces – fences, walls, water features, timber features	1.1) Problems due to lack of maintenance 1.2) Interpret a maintenance specification 1.3) Select, use and maintain equipment 1.4) Maintain the features

Learning outcome 1: maintain hard landscape features – fences, walls, water and timber

Topic 1.1: problems due to lack of maintenance

Identify problems and explain why surfaces and structures must be repaired and maintained and potential problems if not carried out:

- Health and safety
- Fixtures and fittings

Topic 1.2: interpret a maintenance specification

The requirements of a maintenance specification and prepare accordingly:

- Equipment
- Resources

Topic 1.3: select, use and maintain equipment

Ensure the necessary materials, tools and equipment are available and maintained in a safe and effective condition:

- Identification of tools and equipment needed
- Checking equipment and tools prior to use
- Use tools and equipment

Topic 1.4: maintain features

Maintain features to the specification provided at the appropriate time in relation to:

- Security
- Quality
- Design
- Construction

Unit 17 Propagation

What is this unit about?

The purpose of this unit is to provide the learners with the knowledge and skills to select appropriate propagation growing media, container and propagation environment to enable a range of plants to be grown from vegetative and generative (seed) materials. Learners will collect and process vegetative material through to first potting and generative (seed) material for immediate sowing or controlled storage.

This is part of the horticulture role.

Learning outcomes

	Learning Outcome	Topic
1	Propagation environments	1.1) Conditions required for propagation 1.2) Container types available 1.3) Growing media 1.4) Types of propagule 1.5) Stages in propagation 1.6) Health and safety precautions to take when handling plant material
2	Prepare vegetative material for propagation	2.1) Select appropriate propagation growing media 2.2) Select and fill container 2.3) Select and prepare vegetative material and insert 2.4) Label and maintain accurate records
3	Prepare seed material for propagation	3.1) Select appropriate propagation growing media 3.2) Select container 3.3) Prepare and sow generative (seed) material 3.4) Label and maintain accurate records 3.5) Prepare generative (seed) material for storage
4	Grow on propagated plants	4.1) Select appropriate propagation growing media 4.2) Select container 4.3) Process propagules by pricking out, potting off or potting on 4.4) Label and maintain accurate records

Learning outcome 1: propagation environments

Topic 1.1: conditions required for propagation

Conditions required for propagation:

- Humidity
- Moisture
- Dark, light
- Temperature (base and aerial)
- Carbon dioxide
- Oxygen
- Rooting hormone

Acclimation to a production environment (weaning).

Structures and their basic maintenance for propagation:

- Sun tunnels
- Polythene tunnels
- Glasshouses
- Mist benches
- Fog rooms
- Contact polythene
- Shading

Topic 1.2: container types

Advantages and disadvantages of containers:

- Flats
- Plastic pots
- Fibre pots
- Paper pots
- Blocks
- Cell trays

Topic 1.3: growing media

Propagation and production growing media.

Health & safety precautions.

Suitable depth, structure, consolidation, level surface and moisture.

Topic 1.4: types of propagule

Propagate plants by seed, division, cuttings (softwood, semi ripe hardwood and root) and natural vegetative means (bulbs, corms, stolons, stem tubers, plantlets, foliar embryos).

Topic 1.5: stages in propagation

- Pricking out
- Potting off
- Potting on
- Use of a liner

Topic 1.6: health and safety precautions to take when handling plant material

Hazards of working with plants, and safety controls to ensure safe working practice.

Assessment of plant material for hazardous sap, hairs, sharps.

Learning outcome 2: grow on propagated plants

Topic 2.1: select appropriate propagation growing media

Selection of appropriate propagation growing media for the subject and conditions.

Topic 2.2: select and fill container

Selection of an appropriate container.

Fill with growing media.

Topic 2.3: select and prepare vegetative material and insert

Harvest suitable propagation material from mother stock plant ensuring true to type, pest and disease free, correct growth form, correct size, appropriate cuts on mother plant.

Ensure good hygiene and accurate record keeping and the plant material is transported in a stress-free way.

Organise work station for efficient operation and dispose of all waste in a way that minimised environmental damage.

Prepare cuttings in a professional way (i.e. softwood cuttings with a knife), insert them, irrigate and place in suitable propagation environment.

Topic 2.4: label and maintain accurate records

Accurately label the material, make records and explain the importance of accurate record keeping in propagation.

Learning outcome 3: prepare seed material for propagation

Topic 3.1: select appropriate propagation growing media

Select appropriate propagation growing media for the subject and conditions.

Topic 3.2: select container

Select an appropriate container and fill with growing media.

Topic 3.3: prepare and sow generative (seed) material

Organise work station for efficient operation and minimise cross contamination, dispose of all waste in a way that minimises environmental damage.

Pre sowing treatments, chitting, cutting, scarification, smoke treatment to be carried out if required.

Sow seeds in a suitable container with appropriate spacing and coverage of propagation media.

Sown containers to be placed in appropriate growing area and pest controls explained.

Know the process of stratification and vernalisation to break seed dormancy.

Topic 3.4: label and maintain accurate records

Accurately label the material, make records and explain the importance of accurate record keeping in propagation.

Topic 3.5: prepare generative (seed) material for storage

Harvest suitable fruits / berries and dry capsules for orthodox seed storage, extract the seeds and dry down for long term seed storage.

Seeds to be stored in foil sealed bags or glass containers.

Learning outcome 4: grow on propagated plants

Topic 4.1: select appropriate propagation growing media

Select appropriate propagation growing media for the subject and conditions.

Topic 4.2: select container

Select an appropriate container and demonstrate filling with growing media.

Topic 4.3: process propagules by pricking out, potting off or potting on

Organise work station for efficient operation and minimise cross contamination, dispose of all waste in a way that minimises environmental damage.

Handle propagules ensuring minimum damage to plant material and minimum wastage.

Topic 4.4: label and maintain accurate records

Accurately label the material, make records and explain the importance of accurate record keeping.

Learners to stage material according to standard nursery practice (front to back, left to right).

Unit 18 Establish and Maintain Amenity Areas

What is this unit about?

The purpose of this unit is how to cultivate and maintain a decorative amenity area, covering replacement planting, pruning, watering and general maintenance. Different situations will be covered such as: hedges, borders, rock gardens and water features.

This is part of the horticulture role.

Learning outcomes

	Learning Outcome	Topic
1	Select plants, showing awareness of soil types, microclimates, usage	1.1) Lawns and meadows 1.2) Trees and shrubs 1.3) Hedges 1.4) Ornamental Borders 1.5) Rock Gardens 1.6) Water Features 1.7) Containers
2	Know how to combine plants to create a pleasing and effective design	2.1) Understand the factors that affect planting combinations
3	Prune for specific outcomes	3.1) Formative and maintenance pruning 3.2) Fruit trees and bushes
4	Cultivation and maintenance of soft landscape elements	4.1) Irrigation 4.2) Feeding 4.3) Staking 4.4) Seasonal clearance 4.5) Division 4.6) Bedding
5	Understand the establishment and maintenance of aquatic environments	5.1) Maintaining ponds and lakes 5.2) Aquatic plants

Learning outcome 1: select plants, showing awareness of soil types, microclimates, usage

Topic 1.1: lawns and meadows

Which types of grasses, wildflowers and bulbs are best suited to which environments:

- Turf v seed
- Grass varieties for different soil types and uses
- Wildflowers from seed or plugs
- Wildflowers best suited to different soil types, aspect, conservation designations
- Bulbs best suited to naturalisation in grass: species v cultivars

Topic 1.2: trees and shrubs

The best trees to choose for different uses and environments:

- Seasonal interest
- Size and longevity
- Soil and climate
- Safety considerations

Topic 1.3: hedges

Select the best type of hedge for different situations and functions:

- Privacy, screening and shelter
- Topiary, parterres
- Biodiversity
- Soil type and moisture levels

Topic 1.4: ornamental borders

Select different types of plants to fill a border:

- Shrubs
- Herbaceous perennials
- Tender perennials
- Biennials
- Annuals
- Bulbs
- Grasses

Topic 1.5: rock gardens

The types of plants best suited to rock gardens:

- Shrubs
- Herbaceous perennials
- Tender perennials
- Biennials
- Annuals
- Bulbs
- Grasses

Topic 1.6: water Features

Types of plants best suited to water features for aesthetic and water quality purposes:

- Marginal Plants
- Floating Plants
- Submerged Plants

Topic 1.7: containers

Which plants to choose for containers depending on size, seasonal interest, aspect and style:

- Shrubs
- Herbaceous perennials
- Tender perennials
- Biennials
- Annuals
- Bulbs
- Grasses

Learning outcome 2: combine plants to create a pleasing and effective design

Topic 2.1: Understand the factors that affect planting combinations

- Planting density
- Seasonal interest
- Colour combinations
- Biodiversity
- Formal and informal
- Plant form

Learning outcome 3: prune for specific outcomes

Topic 3.1: Formative and maintenance pruning

The difference between formative and maintenance pruning, and understand varying applications:

- Formative pruning: creating the correct shape at planting stage
- Maintenance of a variety of forms of ornamental trees and shrubs
- Pruning according to plant seasonality, spring, summer and winter flowering shrubs

Topic 3.2: fruit trees and bushes

Know how the pruning of fruit trees and bushes affects production and yield:

- Tree fruit, apples
- Bush fruit, raspberries, redcurrants, blackcurrants
- Trained forms

Learning outcome 4: cultivation and maintenance of soft landscape areas

Topic 4.1: irrigation

Maintain sufficient water levels as plants mature:

- Hand watering
- Sprinklers (portable)
- Static irrigation (e.g. leaky hoses, sprinkler systems)

Topic 4.2: feeding

Maintain sufficient nutrient levels as plants mature:

- Use of organic and non-organic fertilisers
- Nutrient requirements for different stages of growth
- Nutrient requirements for different plant types
- Nutrient deficiency symptoms
- Methods of fertilizer application – granule, liquid, controlled release, mulch, foliar

Topic 4.3: staking

Know which plants require staking

Stake plants using a variety of methods at the required time:

- Use of manufactured staking products (wire, netting, hoops, obelisks etc)
- Creation of staking using natural materials
- Pruning to prevent the need for staking

Topic 4.4: seasonal clearance

Clear a border at the optimum time to ensure good aesthetics and plant hygiene without damaging biodiversity:

- Herbaceous plants
- Annuals
- Biennials
- Grasses
- Shrubs

Topic 4.5: division

Regenerate a border through division at the correct time:

- Plants suitable for division
- Timing for division
- Tools and techniques
- Aftercare

Topic 4.6: bedding

Understand basic maintenance of bedding areas

- The difference between summer and winter schemes
- Maintaining for longevity and effect

Learning outcome 5: understand the establishment and maintenance of aquatic environments

Topic 5.1: maintaining ponds and lakes

Understand basic processes of pond and lake maintenance throughout the year:

- Assessing the condition of the pond
- Vegetation control and invasive plants
- Emptying and cleaning
- Conditioning water
- Wildlife protection
- Health and Safety Implications of ponds and lakes

Know how to react to and deal with pond problems in ornamental environments

- Algal bloom
- Leaks
- pH adjustment
- Water treatment
- Invasive species

Topic 5.2: plants

Know a range of plants which can be used in ornamental aquatic environments:

- Oxygenators
- Deep water
- Marginal
- Floating

Unit 19 Ornamental turf

What is this unit about?

The purpose of this unit is to manage a range of different swards for example; domestic landscape, fine lawns, rough grass and meadow grassland, recreational sports. The learner will be able to use a range of turf grass machinery to manage turf surfaces

This is part of the horticulture role.

Learning outcomes

	Learning Outcome	Topic
1	Effects of external factors on ornamental turf	1.1) Seasonal factors 1.2) Weather 1.3) Soil conditions 1.4) Desired use for the surface & marking out of recreational sports
2	Understand irrigation and nutrition of ornamental turf	2.1) Fertiliser use 2.2) Irrigation systems
3	Carry out amenity turf renovation activities	3.1) Identification of turf grasses/weeds 3.2) Renovation activities 3.3) Repair of turf surfaces
4	Understand the use of performance quality standards	4.1) Benefits/limitations of PQS 4.2) Sustainability 4.3) Standards for turf surfaces
5	Assist establishing ornamental turf surfaces	5.1) Requirements for producing surfaces from seed 5.2) Requirements for producing surfaces from turves 5.3) Requirements for producing species diverse meadows

Learning outcome 1: effects of external factors on ornamental turf

Topic 1.1: seasonal factors

The effects of seasonal factors on ornamental turf maintenance activities:

- Sward growth rate
- Sward recovery
- Shade cast from stands and buildings
- Species diversity of the sward

Topic 1.2: weather

The effects of weather on ornamental turf:

- Safety of the surface under extreme weather for users
- Damage to sward under frosty conditions
- Damage to soil structure under waterlogged conditions
- Effect of drought on sward

Topic 1.3: soil conditions

The effects of soil conditions on ornamental turf maintenance activities:

- Soil structure
- Drainage capacity
- Topography of the site

Topic 1.4: desired use for the surface & marking out of recreational sports

Understand the desired use for the surface & marking out requirements for recreational sports activities:

- Playing surface
- Marking out
- Shading or blind cutting
- Type and frequency of cut
- Nutrient depletion through herbage removal (to encourage species richness)

Learning outcome 2: understand the irrigation and nutrition of ornamental turf

Topic 2.1: fertiliser use

Understand the nutrition of sports and amenity turf:

- For sward growth, density and appearance
- For disease control
- Moss control

Topic 2.2: irrigation systems

Understand the irrigation requirements of ornamental turf:

- For sward growth
- For achieving safe user surface

Learning outcome 3: carry out ornamental turf renovation activities.

Topic 3.1: identification of turf grasses/weeds

Identify turf grasses and weeds by common and scientific names sports and amenity turf renovation activities.

- Identify 10 turf grass species
- Identify 20 turf weeds

Topic 3.2: renovation activities

Carry out ornamental turf renovation activities:

- Selective herbicide application / moss control
- Removing weight of grass
- Scarification
- Spiking / tining
- Topdressing
- Luting
- Over-seeding

Topic 3.3: repair of turf surfaces

Repair playing surfaces for ornamental turf:

- Removal of trip hazards and replacing of divots
- Removal of localised compaction
- Emergency replacement of turf
- Pest damage on sward

Learning outcome 4: understand the use of performance quality standards (PQS)

Topic 4.1: benefits/limitations of PQS

Understand the use of performance quality standards:

- PQS assessment
- Understand how management of sward can alter PQS assessment

Topic 4.2: sustainability

The role of sustainability in the management of ornamental turf:

- Assess the cost and resource required to maintain an area of turf
- Assess the environmental impact of sports and amenity turf

Topic 4.3: standards for turf surfaces

Understand the standards for turf surfaces:

- Rules of the game for recreational sports pitches
- What is reasonably achievable for recreational amenity use
- High quality cylinder cut amenity lawns
- Rotary cut rough grass to long grass to biannually cut swards
- Seasonally cut meadow turf
- Pictorial meadows
- Roadside verges

Learning outcome 5: assist with and understand establishing ornamental turf surfaces

Topic 5.1: requirements for producing surfaces from seed

Understand the processes used to produce ornamental surfaces from seed:

- Time of year
- Soil preparation
- Seed sowing
- Protecting emerging seedlings
- Promoting tillering of the sward by rolling.
- First cut

Topic 5.2: requirements for producing surfaces from turves

Understand the processes for establishing ornamental sward from turves:

- Time of year
- Soil reparation
- Turf sizes and means of laying
- Protecting newly laid turf
- Irrigation of newly laid turf
- First cut

Topic 5.3: requirements for producing species diverse meadows

Assist the processes for establishing species diverse meadows:

- Specially cultivated turves
- Plug planting of meadow species
- Oversowing of meadow species
- Severe scarification
- Introduction of yellow rattle *Rhinanthus minor*
- Herbicide treatments
- Use of nutrient poor substrates

Unit 20 Behaviours

What is this unit about?

This section is intended to give additional direction on the behaviours in the standard.

Behaviours

Health and safety; have a safety-led mind-set for self, colleagues and the public.

- Personal protective equipment worn appropriately
- Referral to risk assessments
- Erecting warning signage
- Checking equipment
- Reporting safety issues to supervisor
- Aware of emergency procedures
- Following health and safety and procedures

Customer care; show dignity, respect and empathy when dealing with others, including clients, the public and colleagues.

- Helping colleagues out when asked or when they notice assistance is needed
- Communications with customers – verbal and in writing
- Apprentices may have emails from customers congratulating them on work completed
- Collaborating with others to get the job done

Learn: learn behaviours, skills and knowledge effectively from craftspeople and managers.

- Identify what they need to learn and how to learn it
- Take part in review meetings
- Setting development action plans
- Obtaining feedback from others
- Completion of apprentice journals
- Hand in of work on time

Attitude; have a positive and motivated attitude towards work, including having pride in one's work.

- Turn up at work on time
- No unexplained absences
- Has a 'can do' attitude
- Wears company clothing with pride
- Celebrates achievement
- Respectful of employers machinery and tools, minimise breakage, theft and loss

Decision making; adopt a pragmatic timely approach by identifying appropriate solutions to practical problems.

- How do they overcome problems in jobs? – suggesting workable solutions
- Helping without being asked

Appendix 1: Horticulture / Landscape Operative Apprenticeship: Learning Plan

This table is an optional tool to help plan the apprentice's learning both on and off the job. It makes sure that they have experience of the relevant tasks in a highly seasonal occupation. It is recommended that the plan be agreed by the training provider, employer and apprentice. It should be regularly reviewed possibly during employer appraisals and sessions with the training provider. The list of tasks is indicative only and can be adapted to meet the needs of the apprentice's situation.

Key: LC – refers to the Landscape Construction Role; H refers to the Horticulture role. Units can be found in the training specification.

Role	Unit	Example Task	Resources & support required	Target date	Date Completed
H	17	Sowing seed in containers			
	11	Sowing seed direct to open ground in drills			
	11	Sowing seed direct to open ground broadcast (i.e. grass seed)			
H	17	Preparing containers for seed and cuttings			
H	17	Propagation - softwood cuttings			
H	17	Propagation semi ripe cuttings			
H	17	Propagation hardwood cuttings			
H	17	Pricking out seedlings – seed trays			
H	17	Potting off seedlings / rooted cuttings			
H	17	Potting on containers			
	5, 11	Cutting a hedge – hedging shears			
	5, 11	Cutting a hedge – hedge trimmers			
	11	Pruning shrubs – flowering on current wood			
	11	Pruning shrubs – flowering on previous seasons wood			
	11	Pruning shrubs – for size containment			
	11	Pruning shrubs / trees			
H	19, 6	Grass cutting – rotary mower			
	9, 5	Strimming or brushcutting grass, scrub & small trees			
	10	Soil preparation			
	10	Seed bed tilth preparation			
	10, 5	Levelling soil with a rake			
	11	Mulching			

	11	Feeding plants			
	11	Planting a tree			
	11	Planting perennials			
	11	Planting shrubs			
	11	Planting bulbs			
	11	Planting bedding			
H	19	Edging turf			
H	19 / 11	Laying turf			
	5, 11	Hoeing			
	11	Hand weeding			
	13	Pest and disease scouting – specify pest or disease			
	13	Report plant pests, diseases or disorders			
	13	Control plant pests or diseases			
	9, 13	Invasive species scouting – specify any identified			
H	19	Aeration of turf			
H	19	Scarifying turf			
H	19	Topdressing turf			
	10	Soil pH test			
H	18	Removal of leaves			
H		Removal of debris			
LC	15	Laying cellular paving systems			
LC	15	Installation of kerbs and edging			
LC	15	Laying paving			
LC	15	Cutting stone / brick elements			
LC	14	Marking out a site from a plan			
LC	14	Marking out levels on a site			
LC	14	Establishing a fall in gradient			
LC	15	Installing surface drainage systems			
LC	15	Building walls			
LC	15	Construction of steps			
LC	15	Construction of water features			
	11	After care of plantings			
LC	14	Use of whacker plate			

LC	14	Excavation of footings			
LC	14	Excavation for sub-base			
LC	14	Moving and profiling soil			
LC	14	Use of geo textiles			
LC	15	Laying water bound paths and surfaces			
LC	15	Laying brick pavers			
LC	16	Assess and repair hard structures such as broken drainage, rotten timber, cracked paving stone, frost damage brick work			
	2	Write and send an email			
	2, 4	Record accurately works completed on a handheld device / computer software & send to relevant person, ensuring technology is correctly used			
	2	Make a call using mobile phone / telephone, using the technology correctly and good verbal interaction with the person on the receiving end			
	2, 4	Produce accurate written information, including spelling and grammar (this could be done as part of completing learning journal)			
	2	Take, record and pass on messages accurately			
	2	Interact with a customer and engage in conversation using good customer service skills			
	1	Demonstrate good manual handling technique			
	1	Create a risk assessment			
	7	Store fuels oils and pesticides correctly			
	7	Correctly store bio degradable waste to prevent leaking			
	7	Check for protected species during horticultural operations			
	9	Control unwanted vegetation			
H	18	Position plants according to a plan (verbal or written)			
H	18	Stake plants			
H	18	Divide plants			
H	18	Undertake seasonal clearance of a boarder			
		Level 2 award in emergency first aid at work			
		Level 2 Principles of Safe Handling and Application of			

		Pesticides Guidance OR Level 2 Award in the Safe Use of Pesticides			
		Level 1 Maths (if required)			
		Level 1 English (if required)			
		Level 2 Maths (if required)			
		Level 2 English (if required)			
	4	Team Working			
	3	Site presentation			
LC	15	Abrasive wheels			

Appendix 2

Horticulture / Landscape Apprenticeship

Apprentice Appraisal Form

This is a resource for employers to use when monitoring the apprentice's progress. It is only a suggestion. It is recommended that appraisals are held as a minimum quarterly, apprentices are given time to prepare off the job and the employer liaises with any external training providers being used.

Apprentice name:	
Appraiser name:	
Appraisal Date:	
Dates of period covered:	
Placement absence - annual leave:	
Placement absence – sickness absence:	

1. Progress against targets from previous review.
Has the apprentice undertaken the tasks set in the previous review? Have they had the opportunity to undertake the learning and skills development identified? Is evidence supplied to an adequate standard? Have they undertaken any training required and if not why not?
2. Knowledge and plantsmanship
Has the apprentice undertaken knowledge tests successfully? Is their plant knowledge developing? Are they undertaking wider study and applying it in their work?

3. Tasks Was the apprentice able to apply their knowledge and understanding to their tasks? Is this demonstrated through journal entries plus qualifications and practical test undertaken (if any).
4. Behaviour and attitude Did the apprentice have a safety-led mind-set. Were they willing to learn from colleagues? Did they have a positive attitude and pride in their work? Was the apprentice able to make good decisions within the time frame of the tasks? Did they show respect and empathy when dealing with others?

Employer Feedback

Strengths
Areas for improvement

Apprentice feedback

The main things I learned during this period
What I would like to improve, and any challenges to achieving my targets

Appendix 3

Horticulture / Landscape Apprenticeship

Learning Journal

This learning journal is an optional template for use in the apprenticeship. It is recommended that a minimum of 40 tasks and 40 plant profiles are completed during the two-year apprenticeship. This might equate to doing a plant profile and detailed task on alternate weeks.

Apprentice name:	
Line manager name:	
Date:	

Apprentice to provide a bullet list of the main tasks carried out – can be by day or by task as preferred – up to 10 points maximum
•
Key learning actions achieved
Line manager to comment on performance, discuss any errors and suggest improvements
Line manager signature & date

Skills portfolio – Apprentice to record, research and analyse a horticultural skill, this should preferably be something you have been trained in or have experience of from the list provided. Maximum word count 500	
Skill Title	
Description to include why, how & when task is done.	
Health, safety and environmental awareness considerations	
Indicate a professional speed that should be achieved	
Relevant Images	

Plant profile Study a plant encountered during your work, identify it and take note of the health, maintenance and location. Complete the following. Maximum word count 300	
Family	
Scientific name (including cultivar if applicable)	
Common name	
Health of plant including any problems and actions or investigations required	
Maintenance requirements including current condition, actions required, seasonal considerations etc…	
Suitability of the plant for the location including light, soil, water, design, mature size and other factors e.g. poisonous, spines, specific user requirements etc…	
Image of plant	