

Unit 43: Constructing Decorative Landscape Features

Delivery guidance

This unit is an optional internal unit on the diploma and extended diploma programmes and will give learners the practical skills and knowledge required to construct decorative landscape features. Knowledge of the construction process will include design, planning and management skills. Learners will be required to produce specification and contract documentation including details with quantities for their project planning. These specifications will have to be designed to scale for two decorative landscape features with the relevant documentation to engage contractors and win tenders. After completing this unit, learners will gain an understanding of the importance of meeting construction standards and carrying out risk assessments to identify any potential health and safety issues involved.

Learners will also be able to demonstrate practical skills when constructing a decorative landscape feature to a high standard when following their own specification. They will clear sites safely and effectively and ensure waste is removed and disposed of correctly.

Access to suitable areas with opportunities for hands-on practical experience is critical to this unit. Learners will be given a brief to individually carry out tasks when constructing a decorative landscape feature, although there may be scenarios where learners are required to work in small groups.

Connections with a range of local professionals and locations such as parks or estate, historical and/or botanical gardens can be used to offer support by organising external visits and inviting guest speakers to the centre.

Approaching the unit

Learning aims may be combined so that the theory is taught alongside practical tasks in order to help learners to put the unit into context. Other units could be linked where appropriate. For example, you could teach health and safety considerations in *Unit 42: Landscape and Garden Design* relating to the use of tools, equipment and machinery or link to *Unit 7: Work Experience in the Land-based Sectors*, where learners will work directly with decorative horticulture features. In addition, *Unit 45: Computer-aided Design in Horticulture* can be used to support the design of horticulture features in this unit.

For learning aims A and B, learners will investigate the different types of decorative landscape features that should include pergolas, gazebos, ponds, walls, patios and outdoor kitchens. Sites where these features are commonly constructed should be investigated to allow learners to fully understand the impact of site conditions and how this will affect their planning. By investigating existing site considerations, learners will understand clearance requirements, any changes of level and access arrangements for resources and completing works.

Specialist resources required for this unit include:

- land-based library and internet resources
- drafting boards
- drafting drawing equipment
- project site
- surveying equipment – surveying tapes, fixing arrows, stakes, string lines and marker spray
- level surveying equipment, e.g. optical level and laser level
- IT facilities with word processing and spread sheet software
- construction equipment.

Learners should have access to a range of example drawings, plans and schedules to examine. A landscape architect could discuss survey plans and their interpretation with learners, including detailed construction information (e.g. standard specification details, templates, costs and pricing).

Learners will carry out construction detail drawings for two decorative horticulture features ensuring they include key information, such as:

- Industry Standards for construction methods
- foundations (above and below ground)
- timber spans
- retaining structures
- design styling
- decorative features.

Learners need to understand the benefits of construction detail drawings and technical drafting methods, including the use of suitable scales and technical information. They need to be introduced to the methods of quantification to allow them to calculate the features of their plans for themselves, which will include standard methods of measurement and computer aided design which links directly to *Unit 45: Computer-aided Design in Horticulture*.

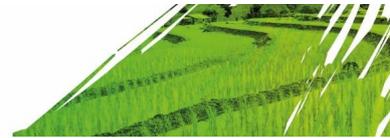
In addition to their plans, learners will be required to produce a detailed bill of quantities that includes labour costs, pricing and ordering materials, which all need to be presented in a professional manner. A schedule will also be produced to detail the necessary timings using Gantt charts, spreadsheets and project management software to show the planning of the works. Learners will also be required to show evidence of how this information is shared with staff to inform them of tasks, timings and health and safety information.

Guest speakers can be invited from the landscaping industry to talk about contracts, tenders, the effective use of contractors, managing staff and contingency planning. You could ask them to bring a range of documentation for the talk so that learners have the opportunity to examine them and ask any questions.

Visits can also be arranged to different gardens (e.g. historical, botanical, estate and/or residential) or parks so they can see a range of decorative horticulture features on site, observing their construction and where they are located. Learners will also need access to a full range of resources to enable them to effectively develop their own plans and specifications for the construction of decorative horticulture features.

For learning aim C, learners will have the opportunity to carry out site preparation safely. They will be required to follow their own schedule for one decorative horticulture feature, which will begin by clearing an existing site.

Learners will have to manage the project themselves which will include managing required materials by placing orders in a timely manner, ensuring their safe delivery and organising the safe storage of materials. They will set out the proposed features and manage site safety at all times, adhering to the relevant legislation and codes of practice, producing risk assessments as appropriate, displaying safety signs and the correctly using personal protective equipment (PPE).



Tutor-led practical demonstrations can illustrate safe tool, equipment and machinery use and including how sites are prepared. You should take into account learners' previous experience in this area, as more advanced learners could be asked to demonstrate some practical tasks where appropriate. Ensure that learners work independently on their tasks so that you can monitor their skills development.

Learners will be required to construct a decorative horticulture feature to plan, meeting the design specifications and managing their time appropriately. On completion, the site must be left in a good condition to ensure a quality finish.

Learners must then review their own, work which should include a snagging list, recording this appropriately. This may be a good opportunity for learners to review each other's work, providing feedback so that future improvements can be made.

Assessment model

Learning aim	Key content areas	Recommended assessment approach
A Develop specification and contract documentation for the construction of decorative landscape features	A1 Existing site considerations A2 Design interpretation and specifications development A3 Construction detail drawings	Portfolio of evidence to include: <ul style="list-style-type: none"> • specifications and construction detail plans • contract documentation • a management schedule for the construction process.
B Plan the construction and management of decorative landscape features	B1 Quantification and bills B2 Contract documentation B3 Planning a programme of works	
C Carry out the construction of decorative landscape features to meet planned specifications	C1 Site preparation and safe site management C2 Construction of features C3 Review of works	Portfolio of evidence to include: <ul style="list-style-type: none"> • evidence of carrying out practical site preparation and construction activities • a review of the completed work, including necessary corrections, repairs or alterations.

Assessment guidance

This is an optional, internally set unit comprising two summative assignments that examine learners' knowledge through written tasks and practical competency skills.

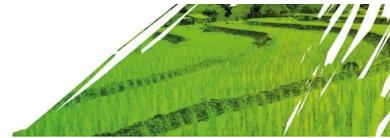
For learning aims A and B, learners are required to produce a portfolio of evidence which will include specifications and contract documentation, as well as their own construction detail and management plans for two decorative horticultural features.

Learners' specifications will need to demonstrate robust site clearance and record qualifications with costings of all the required materials for both horticultural features, illustrating that they have considered the minimisation of waste. The contract documentation should engage contractors and include letters providing a scope of the work being completed. In addition, this will need to include the custom and standard documentation that is crucial in order to apply for and win tenders.

For each of the selected decorated horticultural features, learners will need to produce two detailed:

- construction detail plans to scale including key specification information (e.g. measurements, dimensions, evidence of meeting industry standards and a key for each drawing)
- management plans illustrating the safe and timely construction process; this should include realistic time plans showing tasks from start to finish, as well as contingency planning
- risk assessments covering all tasks and any potential health and safety issues such as PPE, security and site-specific issues.

For learning aim C, learners are required to produce a portfolio of evidence for the construction of one of their decorative horticultural features. They will show evidence of referring to their plans for clearing and preparing sites, disposing of waste correctly and using the correct tools and equipment required safely. Learners will also evidence



responsible health and safety practices following the risk assessments produced and share these with the construction team (if there is one). Learners will need to follow their construction and management plans to ensure that their feature is correctly set out and constructed in relation to good practice and standards.

Learners will also be required to evidence that they have monitored their own performance against their schedule and made adjustments where appropriate (and if required).

Once completed, learners will be required to complete a snagging checklist to assess the work undertaken, carrying out any necessary additional works and/or repairs before the feature is signed off as completed and safe.

Getting started

This gives you a starting place for one way of delivering the unit, based around the recommended assessment approach in the specification.

Unit 43: Constructing Decorative Landscape Features

Introduction

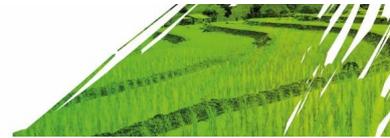
Learners should be introduced to a range of landscape features found in different locations, which may include public and recreational parks, green areas, conservation areas, garden centres, residential gardens and/or estate gardens. Learners will investigate the impact of site conditions that can affect construction.

There are excellent opportunities to develop strong links with local employers during this unit, especially during the introduction which will enable learners to visit the range of areas listed. Guest speakers or guided tours will give learners the opportunity to observe decorative landscape features first-hand, providing them with the underpinning knowledge required to plan and construct their own.

Observations of learners completing work experience could be used as evidence where appropriate throughout this unit.

Learning aim A – Develop specification and contract documentation for the construction of decorative landscape features

- For learning aim A1, you could organise a visit to a local garden, park, green area and/or garden centre to study the types of decorative landscape features including pergolas, gazebos, ponds, walls, patios and outdoor kitchens. Learners could be asked to pay particular attention to the location and construction of each feature, making their own notes.
- You could deliver a tutor presentation on the interpretation of existing landscape plans and existing site conditions including items that may need removal or protection, clearance activities, level changes and access to the site. You could show various examples of existing sites on the interactive board and facilitate a group discussion on site planning and preparation.
- Facilitate a practical session during which learners use an allocated area to start planning their own decorative landscape feature. Learners will need to look at the existing site to begin their own planning for a design proposal in developing a scope of works (see unit specification).
- For learning aim A2, you could organise a classroom-based session with a guest speaker from a local landscape design business. The guest speaker should be given the unit specification in advance to prepare examples to show learners. This could include a range of landscape plans and three-dimensional drawings that have labels, annotations and keys to show the techniques and methods of garden design, as well as critical information found on construction detailed drawings for learning aim A3 (see unit specification). In addition, the guest speaker could show a range of scopes of work or schedules from preparation of site to installations.
- You could deliver a presentation on meeting the standards, standard specifications of construction methods and where to find them, including templates and construction plans on how the features are to be built. You could follow this with a session on how to calculate prices of the features pricing and how to write specifications.
- You should also ensure that you cover construction detail drawings in full – key information required includes the benefits of construction detail drawings and technical drafting methods. This could be done via a presentation by you followed by an activity where learners



need to plan and have a go at drafting their own drawing for a small landscape project chosen by the you.

- As a formative assessment activity, learners could be given a construction plan of a decorative landscape feature where they are required to price up and compile a specification to give to a customer.
- Ensure you give learners the necessary time to complete the summative assessment activity. They should be given an assignment brief to follow and use the information learned so far to begin developing the specification and contact information for the construction of two decorative landscape features that could be constructed on their own site.

Learning aim B – Plan the construction and management of decorative landscape features

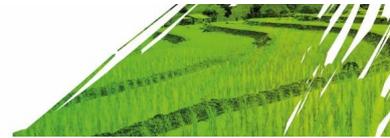
- For learning aim B1, you could deliver a presentation on the techniques and processes for producing estimates and quotations. Ensure that you forge links between this session and maths skills by using standard methods of measurement, measurement tools, area, volume, ratios, percentages, costing for labour, pricing materials, working hours, presenting bills of quantities, total costs, and profit and loss.
- You could also link this session to *Unit 45: Computer-aided Design in Horticulture* by discussing how computer-aided design can be used in the estimates and quotation process. This could be a standalone session if Unit 45 has not been chosen.
- As a formative assessment activity, you could bring in a range of trade catalogues and give learners some example trade website addresses or local companies for them to present a bill of quantity including pricing methods of resources, industry standard profit margins, overheads and final valuation for their two decorative landscape features.
- Guest speakers – including a client, a designer and a contractor – could be invited in to speak to learners about their different roles and what is required and expected from each role. Learners could prepare questions in advance on the information they may need to include in a contract from the perspective of each speaker. This should include the development of preliminaries and identification of responsibilities such as provisions of welfare facilities, requirements to give utility services (use of existing or own provision) and security (see unit specification as a guide).
- Invite another guest speaker from a large local landscaping business to discuss the tender process. Ask the speaker to bring in documentation to show learners the vital information necessary to successfully win a contract. The speaker could also be asked how they manage and inform staff of works and how health and safety information is shared in a question and answer session.
- For learning aim B3, you could facilitate a discussion on planning a programme of works. You could show learners a range of planning documentation including Gantt charts, spreadsheets and project management software to help them plan the construction of their two decorative landscape features. After the discussion, learners could decide which method is most suitable for their own planning.
- Initiate a classroom debate on prioritising and managing work. This should include: ordering materials to fit with schedules; minimising waste and its disposal; access to materials on site and their handling and movement; and meeting deadlines to move forward with best practice. You could write down notes on the board for learners to refer to at a later date.
- You could give learners case studies that focus on contingency planning including how to deal with staff absence, adverse weather and unavailability of machinery or equipment. Learners could do this individually or in small groups and then share their responses in a class discussion.
- Ensure you give learners the necessary time to complete the summative assessment activity. They should be given an assignment brief to produce two construction and management



plans following the specification and contract documents for the decorative landscape features detailed in learning aim A. From these plans, learners will choose one to construct for learning aim C.

Learning aim C – Carry out the construction of decorative landscape features to meet planned specifications

- For learning aim C1, you could start by delivering a presentation on health and safety legislation and relevant Construction Design Management and their implication on the construction of decorative landscape features. You could then facilitate a practical demonstration on working in safe environments before learners complete their own risk assessments. Give them blank pro-formas to fill in, showing consideration of relevant legislative requirements, the provision of correct PPE and use of correct signage where appropriate.
- You could then arrange a series of practical activities where learners carry out their own site preparation to ensure safe working and following relevant legal requirements. Learners may need to work in small groups for these sessions; however, it is essential they produce their own evidence to meet the unit criteria.
- In these practical sessions, learners should also demonstrate site clearance and preparation including vegetation removal, levelling, excavations and site protection. Learners will need to show that they can manage their resources and materials placing orders and taking delivery where appropriate.
- For learning aim C2, you could give learners a practical demonstration on accurate marking and setting out of areas before construction and safe and correct tool, equipment and machinery use. This could be followed by learners accurately marking and setting out their own decorative landscape feature.
- You could then arrange a series of practical sessions where learners carry out the construction of decorative landscape features, demonstrating safe methods of construction, using techniques to meet design specifications, managing time and progress, carrying out safe working practices and safely using tools, equipment and machinery.
- For learning aim C3, you could arrange for a landscape construction expert to discuss with learners how to carry out a review of their construction works, including snagging, site conditions on completion and giving advice on future improvements required. As a formative assessment activity, case studies including photographs could be given to learners so they can practise how to carry out a review on works completed against the unit specification content.
- Ensure you give learners the necessary time to complete the summative assessment activity. They should carry out a review on their own completed decorative landscape feature, including a snagging report for necessary corrections, repairs and alterations as appropriate.



Details of links to other BTEC units and qualifications, and to other relevant units/qualifications

This unit links to:

- Unit 7: Work Experience in the Land-based Sectors
- Unit 42: Landscape and Garden Design
- Unit 44: Linear and Level Surveying
- Unit 45: Computer-aided Design in Horticulture.

Resources

In addition to the resources listed below, publishers are likely to produce Pearson-endorsed textbooks that support this unit of the BTEC Internationals in Agriculture/Horticulture/Land-based subjects. Check the Pearson website (<http://qualifications.pearson.com/endorsed-resources>) for more information as titles achieve endorsement.

Textbooks

Beazley M *The RHS Essential Garden Planning and Construction*, Turtleback, 2006. ISBN 978-1845330590 – this is a step-by-step guide to the construction of decorative landscaping features including planning and design.

Ekin M *Wooden Garden Structures: A Complete Guide*, The Crowood Press, 2006. ISBN 978-1861268372 – this is a step-by-step guide to the design and construction of a range of wooden landscape features

Wilk S *Drawing for Landscape Architects: Construction and Design Manual 2e*, Dom Publishers, 2016. ISBN 978-3869225357 – this book includes useful information on planning design and construction.

Videos

To support the teaching of this unit, search online for videos featuring the construction of decorative landscape features.

Websites

Association of Professional Landscapers (APL) – finds local high-quality landscape businesses and gives helpful advice, guidance and up-to-date news for the sector

Joint Council for Landscape Industries (JCLI) – gives guidance and support for those working in the industry

The Royal Horticultural Society – includes information on landscape features

Pearson is not responsible for the content of any external internet sites. It is essential for tutors to preview each website before using it in class so as to ensure that the URL is still accurate, relevant and appropriate. We suggest that tutors bookmark useful websites and consider enabling learners to access them through the school/college intranet.