



Level 2 Certificate in Golf Greenkeeping (0143-20/02)

October 2019 Version 2.8

Qualification Handbook

Qualification at a glance

Industry area	Horticulture
Qualification number	0143-20/02
Age group	16-19, 19+
Entry requirements	There are no formal entry requirements for this qualification. However it is expected that apprentices have a Level 2 in English and Maths or working towards achieving this by the end of the apprenticeship.
Assessment	<ul style="list-style-type: none"> • End-point Assessment - Knowledge Test • End-point Assessment - Trainee Statement • End-point Assessment - Practical
Grading	This qualification is graded Pass / Merit / Distinction. For more information on grading, please see Section 5: Grading.
Approvals	This qualification requires full centre and qualification approval
Support materials	Assessment guide
Registration and certification	Registration and certification of this qualification is by the Walled Garden, and is subject to end dates.

Title and level	Size (GLH)	TQT	Qualification number	Ofqual accreditation number
Level 2 Certificate in Golf Greenkeeping	795	2445	0143-20/02	601/8360/3

Version and date	Change detail	Section
2.1 June 2017	Centre resources and requirements updated	Centre requirements
	Overview of qualification updated to include registration	Introduction
	Assessment component numbers updated	Introduction
2.2 August 2017	Registration information updated	Introduction
2.3 December 2017	Assessment component numbering updated (202 is now 700 and 203 is now 701)	Throughout
2.4 May 2018	Banks removed from mowing range due to health & safety	Unit 005
	Greens added to repairing divot hole range. Additional guidance added for the identification of weeds and mosses	Unit 006
	Browntop changed to Bentgrass. Additional guidance added for the identification of plants	Unit 007
	Guidance added for the portfolio of evidence	Appendix 4
2.5 June 2018	GTC Learning Materials Level 2 ISBN amended from 078-0-9573436-2-7 to 978-0-9573436-2-7	Throughout
	Minor formatting changes	Throughout
	Resit rules updated	Resits of assessments
	Topic 3.2 added to Further Guidance section	Unit 007
	Unit 007 added to Plant Identification section	Appendix 4
2.6 July 2018	End knowledge test changed to End-point Assessment - Knowledge Test	Throughout
	Guidance added to Plant Identification section	Appendix 4
2.7 August 2019	Practical exam windows updated	4. Assessment
	Resit rules updated	4. Assessment
	Rules of Golf updated: 'Water hazards' changed to 'water penalty areas'	Unit 008 Topic 1.1
2.8 October 2019	Resit rules updated	4. Assessment

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1 Introduction

What is this qualification about?

The following purpose statement relates to the **Level 2 Certificate in Golf Greenkeeping**.

OVERVIEW

Who is this qualification for?

This qualification is for you if you want to work in the Golf Greenkeeping industry. It provides you with the core practical skills and knowledge which will equip you to progress in employment and/or further learning and training within the Golf Greenkeeping industry.

What does this qualification cover?

This qualification enables you to gain the core skills and knowledge required for working as a Golf Greenkeeper within a Golf Club setting. Sound practical skills are really important for working as a Golf Greenkeeper as you will be required to work outdoors with machinery, turf and plants all year round.

You will learn how to develop your own personal performance and work effectively with others. You will also cover all the important aspects of health and safety. You will develop the knowledge and skills required to use and maintain non-powered tools and equipment, hand held powered tools and equipment, pedestrian controlled powered equipment and ride-on powered equipment correctly and safely, as well as being able to prepare and operate a tractor with attachments.

You will learn how to prepare the entire range of playing surfaces (tees, fairways, roughs, greens etc.) for the game of golf, as well as being able to undertake common methods of repair and renovation. Preparing ground and establishing plants is also a key part of the job, and you will learn how to do this effectively. You will be able to set out and prepare the golf course and its features ready for play to commence.

This qualification is also going to be part of the Level 2 Apprenticeship in Golf Greenkeeping. If you are working as an apprentice, you will be employed at a Golf Club for the period of your apprenticeship, and will learn through practical training on the job.

The apprenticeship will typically take 18-24 months to complete.

WHAT COULD THIS QUALIFICATION LEAD TO?

Will the qualification lead to employment, and if so, in which job role and at what level?

You will progress to the job role of Golf Greenkeeper.

Why choose this qualification over similar qualifications?

This qualification is for you if you want to enter the world of work. It provides the core skills and knowledge required to enter employment in the Golf Greenkeeping industry, and it will set you off on your career.

Will the qualification lead to further learning?

You may wish to progress to further learning and training, such as an Advanced Apprenticeship or other Level 3 qualifications in Horticulture or related subjects.

WHO SUPPORTED THIS QUALIFICATION?

Employers

- Cold Ashby Golf Club
- Roehampton Club
- Basildon Golf Club
- MacDonald Portal Hotel
- Bearwood Lakes Golf Club
- Worplesdon Golf Club
- Royal Liverpool Golf Club
- Stock Brook Golf Club
- England Golf
- British and International Golf Greenkeepers Association (BIGGA)
- Greenkeepers Training Committee (GTC)

Title and level	City & Guilds number
Level 2 Golf Greenkeeping – Full Apprenticeship Package	0143-02

Centres must register apprentices on this pathway for the full apprenticeship package. This includes the end-point assessment.

Apprentices registered on this package will automatically be registered onto (0143-20) Level 2 Certificate in Golf Greenkeeping – End-point assessment.

Level 2 Certificate in Golf Greenkeeping – End-point Assessment	0143-20
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This end-point assessment product is part of a package. To register onto this package apprentices must be registered onto 0143-02, not 0143-20. This is why the registration date has been set in the past. Apprentices must be booked onto the end-point assessment using the Reservation Request component (500) and complete the associated end- point assessments (700, 701).

If the end-point assessment/s is failed, resits should be booked against the Reservation Request Resit module (550) and the associated end-point assessments will then be accessed (750, 751).

Mapping of units to the GTC Training Manual

The **Level 2 Certificate in Golf Greenkeeping** has been developed in conjunction with the Greenkeepers Training Committee (GTC). It is suggested that apprentices complete the tasks in the GTC Training Manual before being entered for the synoptic assessment units 201, 700 and 701. The table below maps the units in this handbook to the tasks in the GTC Training Manual.

Level 2 Certificate in Golf Greenkeeping

Handbook Unit	GTC Training Manual Task
001 Develop personal performance and maintain working relationships	001.1 – 001.5
002 Monitor and maintain health and safety	002.1 – 002.2
003 Use and maintain equipment and machines	003.1 – 003.4
004 Prepare and operate a tractor with attachments	004.1 – 004.2
005 Present and maintain turf playing surfaces for golf	005.1- 005.14
006 Renovate and repair sports turf surfaces	006.1 – 006.5
007 Establish plants outdoors	007.1 – 007.4
008 Prepare golf course for play	008.1 – 008.4

Qualification structure

To achieve the **Level 2 Certificate in Golf Greenkeeping** the apprentice must complete all **8 mandatory units** (795 GLH).

Level 2 Certificate in Golf Greenkeeping

UAN	Unit number	Unit title	GLH
D/508/0099	001	Develop personal performance and maintain working relationships	60
J/508/0100	002	Monitor and maintain health and safety	45
L/508/0101	003	Use and maintain equipment and machines	135
R/508/0102	004	Prepare and operate a tractor with attachments	75
Y/508/0103	005	Present and maintain turf playing surfaces for golf	195
D/508/0104	006	Renovate and repair sports turf surfaces	120
H/508/0105	007	Establish plants outdoors	120
K/508/0106	008	Prepare golf course for play	45

Assessment

To achieve the **Level 2 Certificate in Golf Greenkeeping** apprentices must successfully complete **all** the mandatory assessment components.

Level 2 Certificate in Golf Greenkeeping

Component number	Title
201 (still 201 for resit)	End-point Assessment - Knowledge Test (accessed through Evolve)
700* (or 750** for resit)	End-point Assessment - Trainee Statement
701* (or 751** for resit)	End-point Assessment - Practical

* Please note that components 700 and 701 are accessed by using the reservation request 500

** Component 750 is accessed by using the reservation request number 550; component 751 is accessed by using the reservation request number 551.

2 Centre requirements

Approval

New centres will need to gain centre approval. Existing centres who wish to offer this qualification must go through City & Guilds' **full** Qualification Approval Process. Please refer to the City & Guilds website for further information on the approval process: www.cityandguilds.com.

Note: There is fast-track approval available for this qualification ONLY for the Greenkeepers Training Committee (GTC) quality assured centres, and fast-track forms will be sent directly to them.

Centres approved to deliver Level 2 Certificate in Golf Greenkeeping (0143-20) as part of the Golf Greenkeeping Apprenticeship Standard are required to meet specific 'GTC Approved Criteria' set out below. This is in addition to providing the Greenkeepers Training Committee Ltd (GTC) with the details of apprentices registered with City & Guilds, which is a requirement set out within the Assessment Plan associated with the Apprenticeship Standard.

All centres are required by City & Guilds to make an annual declaration that they are meeting all these criteria; a copy of this declaration should also be sent by the centre directly to the GTC. Failure to meet these criteria may result in a centre having their approval to register apprentices suspended or withdrawn in line with current City & Guilds policies and procedures.

Criteria

1. The Centre agrees to provide the GTC with evidence all staff engaged in the delivery of the Golf Greenkeeping qualification are appropriately qualified or have appropriate industry experience. CV's of key staff, including evidence of current Continuing Professional Development (CPD) is made available when requested by the GTC.
2. A list of Golf Greenkeeping programmes offered by the Centre, along with numbers of student registrations, is submitted annually to the GTC.
3. The Centre agrees to inform the GTC when new apprentices are registered and also regularly update the GTC on the progress of all registered apprentices.
4. The Centre agrees to hold a minimum of one Golf Greenkeeping Liaison meeting per annum.

Note: It is acceptable for Centres to hold a joint Liaison – Standardisation event.

Agendas and minutes to be sent to GTC Headquarters. Representations could include (but not limited to):

- a. Golf club employer (e.g. Owner, Secretary, Chairman of Green)
 - b. Course Manager/Head Greenkeeper with at least one registered apprentice.
 - c. GTC representative, GTC representative bodies e.g. local BIGGA regional representative, GCMA regional representative, local Home Union County representative
 - d. Turf tutors and representatives from each group of greenkeeping apprentices.
5. The Centre has access to appropriate facilities, which are available to apprentices on the Golf Greenkeeping qualification.
 6. The GTC Training Manual is the standard recommended within the Assessment Plan to be used by Centres delivering the Certificate in Golf Greenkeeping. The GTC have developed Learning

Materials based on best principles and practices for golf course maintenance. It is suggested that the Centre adopts the use of the GTC above recommended documentation in a format which meets both City & Guilds and GTC standards.

7. The Centre agrees to incorporate a 3rd Party Declaration for all registrations on the Greenkeeping Apprenticeship, advising information will be passed on to the GTC to help monitor Employer and Apprentice's satisfaction.
8. The Centre agrees to have an effective communication system to ensure Employers with staff registered on the Apprenticeship programme are fully engaged with the programme of education and training and are fully aware of the Apprentice's progress.
9. The Centre has an internal quality assurance system, which meets with City & Guilds policies and procedures. Copies of any Quality Assurance reports to be sent or emailed by the Centre to the GTC as appropriate or requested.
10. If an Employer, Apprentice or Centre raise any concerns, City & Guilds will investigate in line with current policies and procedures, with guidance sought from the GTC where appropriate.
11. The Centre agrees to allow at least one member of the appropriate team to attend a GTC organised annual staff development event.

Declaration form

I declare that our centre has provided the GTC with the details of all Golf Greenkeeping apprentices registered with City & Guilds, met all of the GTC Approved Criteria within the last 12 month period and submitted all appropriate documentation.

Where we have not met all the necessary criteria, I have attached an action plan clearly detailing how we are addressing any issues. I acknowledge that City & Guilds has the right to require further information and/or commitment from our centre, which may require quality assurance intervention for which a fee may be payable.

Centre name	
Centre number	
Name in Print	
Signature	
Position in Centre	
Date	

Resource requirements

Centre staff should familiarise themselves with the structure, content and assessment requirements of the qualification before designing a course programme, as detailed under the following headings.

Centre staffing

Staff delivering these qualifications must be able to demonstrate that they meet the following requirements:

- be technically competent in the areas in which they are delivering
- be able to deliver across the breadth and depth of the content of the qualification being taught
- have recent relevant teaching and assessment experience in the specific area they will be teaching, or be working towards this
- demonstrate Continuing Professional Development (CPD).

Physical resources

All Centres in conjunction with the employer should ensure that the apprentice has access to the range of equipment, tools and materials required to carry out all the tasks.

Apprentice entry requirements

Centres must ensure that all apprentices have the opportunity to gain the qualification through appropriate study and training, and that any prerequisites stated in the *What is this qualification about?* section are met when registering on this qualification.

Age restrictions

These qualifications are approved for apprentices aged 16 – 19, 19+.

3 Delivering the qualifications

Initial assessment and induction

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

- if the apprentice has any specific training needs
- support and guidance they may need when working towards their qualification
- the appropriate type and level of qualification.

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

Support materials

The following resources are available for this qualification:

Description	How to access
Assessment guides	www.cityandguilds.com

4 Assessment

Summary of assessment methods and conditions

Assessment for the Level 2 Certificate in Golf Greenkeeping will consist of three synoptic assessments taken by apprentices at the end of their training programme. It is anticipated that apprentices and their trainers will discuss their readiness to complete the end assessment once all parts of the training have been completed. Each assessment will be graded Pass, Merit or Distinction and will go towards a final grade for the qualification.

The assessment units are:

- 201 End-point Assessment - Knowledge Test
- 700 End-point Assessment - Trainee Statement
- 701 End-point Assessment - Practical

Unit 700 End-point Assessment - Trainee Statement, must be submitted to the Independent End-point Assessor for marking two weeks before the agreed 701 Practical end-point assessment date. Unit 201 End-point Assessment - Knowledge Test can be taken at any time after completion of the training but it is recommended that it is taken before the 701 Practical end-point assessment date.

For the Practical end-point assessment, Greenkeeping industry representatives have recommended that the assessments take place March to October. However, if all the assessment requirements can be met and there are no limitations put on the assessment tasks or standards of practical work that can be completed, these can be booked outside this window.

Component numbers	Assessment method	Description and conditions
201 End-point Assessment - Knowledge Test	Externally marked test	<p>This test is externally set and externally marked, and will be sat online through City & Guilds' computer-based testing platform.</p> <p>The test is designed to assess apprentice's depth and breadth of understanding across the mandatory content in the qualification at the end of the period of learning, and will be sat under invigilated examination conditions. See JCQ requirements for details: http://www.jcq.org.uk/exams-office/ice---instructions-for-conducting-examinations</p> <p>The test specification overview on p18 shows the anticipated coverage of this test across the qualification content. The test will consist of both multiple choice and short answer questions and will take up to 2 hours.</p> <p>Apprentices who fail this test at the first sitting will have one opportunity to re-sit the test. If the re-sit is failed the apprentice will fail the qualification as a whole, and cannot achieve the qualification.</p>
700 End-point Assessment - Trainee Statement	Externally marked assignment	<p>This assessment will be worth 30% of the apprentice's final grade.</p> <p>This assignment is externally set, internally and externally marked. Apprentices will be required to collect a portfolio of evidence throughout their training to support their development in the skills, knowledge and behaviours needed to carry out the role of Golf Greenkeeper. Apprentices will be required to use this evidence to write up a short reflective summary of their training focussing on personal development and behaviours. The Trainee statement will be assessed prior to and during the practical end-point assessment, and will be worth 20% of the apprentice's final grade.</p> <p>Further information regarding the portfolio of evidence is available in the Appendix 4.</p> <p>Apprentices who fail this assignment on first submission of marks will have one opportunity to re-sit. If the re-sit is failed the apprentice will fail the qualification as a whole, and cannot achieve the qualification.</p>
701 End-point Assessment - Practical	Externally marked practical test	<p>Please note that for externally set assignments City & Guilds provides guidance and support to centres on the marking process in the assessment pack for the qualification.</p> <p>This test is externally set and externally marked. The apprentice will be required to undertake a series of practical tasks and a professional discussion at their workplace which will be assessed on the same day by an Independent End-point Assessor. These tasks will include a sample of activities from: mowing, course preparation, grass identification, turf maintenance, tractor use, dealing with threats to turf, repair and renovation of the course, preparing ground and establishing plants. This assessment will be worth 50% of the apprentice's final grade. It is anticipated that the practical end-point assessment will last approximately 8 hours.</p>

Process of assessment

Apprentices will need to be registered for the End-point Assessment - Practical (701) through the City & Guilds Independent Assessment Team. Details of this can be found on

www.cityandguilds.com

Centre will be notified of results and on achievement of all assessments centres can claim certificates via the Walled Garden.

Test specification

201 End-point Assessment - Knowledge Test on demand

This is an online test which will consist of a combination of multiple choice and short answer questions. The way the test covers the content of the qualification is laid out in the table below:

Assessment type: Examiner marked, written test

Assessment conditions: Invigilated examination conditions*

Grading: X/P/M/D

Test time: 2 hours

Total number of questions: 39

Unit reference	% of test
001 Develop personal performance and maintain working relationships	5
002 Monitor and maintain health and safety	23
003 Use and maintain equipment and machines	5
004 Prepare and operate a tractor with attachments	5
005 Present and maintain turf playing surfaces for golf	28
006 Renovate and repair sports turf surfaces	10
007 Establish plants outdoors	21
008 Prepare golf course for play	3

*This test is sat under invigilated examination conditions, as defined by the JCQ:

<http://www.jcq.org.uk/exams-office/ice--instructions-for-conducting-examinations>.

Entry for this test can be made through the City & Guilds Walled Garden.

5 Grading

Awarding individual assessments

The grade boundaries of each assessment will be set through a judgemental process using relevant technical experts. The grade descriptors for pass, merit and distinction boundaries, and other relevant information (e.g. archived samples of apprentice work and statistical evidence) will be used to determine the mark at which apprentice performance in the assessment best aligns with the grade descriptor in the context of the qualification's purpose. Boundaries will be set for each version of each assessment to take into account relative difficulty.

Grade descriptors

- A pass apprentice is capable of carrying out well defined tasks and can handle straight forward problems. They can use the range of tools of the trade in a safe manner to achieve acceptable standards, and are suitable to begin employment in the trade with overall supervision.
- A merit apprentice, in addition to meeting the pass criteria, can be expected to demonstrate a confidence in their work, and self-motivation. They are able to achieve the required standard efficiently and accurately especially for straight forward aspects of the task.
- A distinction apprentice, in addition to meeting the pass and merit criteria, are confidently capable at completing tasks and are self-starting and pro-active in their work and their development. They have developed a high level of understanding of materials and their uses. Workplace behaviours are second nature, and their standard of work is accurate and skilled. They are able to achieve a high level of finish.
- The overall final grade will be calculated depending on the weighting and the grade achieved by the apprentice for each of the end assessment components.

Aggregation of achievement in assessments for qualification grading

The **Level 2 Certificate in Golf Greenkeeping** will be reported on a four grade scale: Fail, Pass, Merit, and Distinction. All assessments must be achieved at a minimum of pass for the qualification to be awarded. The contribution of the assessments towards the overall qualification grade is as follows:

Assessment method	Grade scale	% contribution
End-point Assessment - Knowledge Test	X/P/M/D	30%
End-point Assessment - Trainee Statement	X/P/M/D	20%
End-point Assessment - Practical	X/P/M/D	50%

Determining the apprenticeship grade

Each assessment will be graded individually and each result converted into points. The points available for each assessment grade are listed in the table below.

	Fail	Pass	Merit	Distinction
End-point Assessment - Knowledge Test (30%)	0	3	6	9
End-point Assessment - Trainee Statement (20%)	0	2	4	6
End-point Assessment - Practical (50%)	0	5	10	15

The points for each assessment are added together, and the overall grade determined using the following apprenticeship grade boundaries. Apprentices must pass all elements to achieve a minimum of a Pass grade overall.

Apprenticeship Grade	Points
Distinction	24-30
Merit	17-23
Pass	10-16
Fail	0-9

6 Administration

Approved centres must have effective quality assurance systems to ensure valid and reliable delivery and formative assessment of qualifications. Quality assurance includes initial centre registration by City & Guilds and the centre's own internal procedures for monitoring quality assurance procedures.

Consistent quality assurance requires City & Guilds and its associated centres to work together closely; our Quality Assurance Model encompasses both internal quality assurance (activities and processes undertaken within centres) and external assessment and quality assurance (activities and processes undertaken by City & Guilds).

For this qualification, standards and rigorous quality assurance are maintained by the use of:

- internal quality assurance

In order to carry out the quality assurance role, Internal Quality Assurers (IQAs) must have and maintain an appropriate level of technical competence and have recent relevant assessment experience. For more information on the requirements, refer to *Section 2: Centre requirements* in this handbook.

To meet the quality assurance criteria for this qualification, the centre must ensure that the following procedures are followed:

- suitable training of staff involved in the assessment of the qualification to ensure they understand the process of marking and standardisation where required
- completion by the person responsible for internal standardisation of the Centre Declaration Sheet to confirm that internal standardisation has taken place
- the completion by apprentices and supervisors/tutors of the record form for each apprentice's work.

Resits of assessments

Opportunities to resit

An apprentice who passes the EPA cannot resit to achieve a higher grade.

An apprentice who fails the End Knowledge Test, Practical Assessment or the Trainee Statement will have to resit the component. A separate end-point assessment resit booking will be needed with City & Guilds for the relevant assessment.

If an apprentice fails any part of the EPA for reasons out of their control, a resit can be booked at the earliest opportunity.

7 Units

Structure of units

These units each have the following:

- City & Guilds unit number
- title
- unit accreditation number (UAN)
- level
- guided learning hours (GLH)
- assessment type
- what the unit is about
- learning outcomes which are comprised of a number of topics
- guidance for delivery

Unit 001

Develop personal performance and maintain working relationships

UAN:	D/508/0099
Level:	2
GLH:	60
Assessment type	Synoptic knowledge and practical tests, trainee statement

What is this unit about?

The purpose of this unit is to provide the apprentice with the knowledge and skills to be able to agree and develop their own personal performance and work effectively with others.

Apprentices will be expected to understand and take part in reviews/appraisals of their performance. They should also be expected to contribute to the construction of a personal development plan that outlines how they can develop performance and increase their skills and knowledge in relation to their position in the workplace and the industry they work in. Apprentices are expected to be familiar with and work in conjunction with the behaviours and Codes of Practice expected of a professional Golf Greenkeeper.

Learning outcomes

In this unit, apprentices will be able to

1. Maintain and develop personal performance
2. Establish and maintain working relationships with others
3. Demonstrate greenkeeping behaviours and Codes of Practice.

Scope of content

This unit focusses on developing apprentice understanding of the behaviours expected from Golf Greenkeepers. They will learn to maintain and develop their own personal performance with regard to working to targets, completing specific tasks and ensuring quality of work. Apprentices will also develop the knowledge and skills required to work effectively with others under minimal direction through clear communication and co-operation. The apprentice will establish and maintain effective working relationships with colleagues, supervisors and managers, persons external to the team, department or organisation.

Learning outcome:

1. Maintain and develop personal performance

Learning outcome 1 covers performance in the workplace in regard to the completion of tasks set by line managers and understanding how to obtain advice on these tasks. In addition it covers agreeing and setting personal performance targets as a method of advancing skills and knowledge.

Topics

- Topic 1.1 Own responsibilities
- Topic 1.2 Personal performance targets

For this learning outcome, apprentices will need to maintain and develop personal performance with regard to:

- working to targets and completing specific tasks
- quality of work.

Topic 1.1

Tasks and activities responsible for, to include:

- the limits of responsibility and company requirements in relation to specific tasks and activities
- who to obtain advice from in relation to specific tasks and activities
- the correct procedures for obtaining the required advice
- the risks involved in not obtaining advice when unclear about specific tasks and activities.

Topic 1.2

Personal performance targets, development needs and methods of meeting agreed with an appropriate person, to cover specific tasks and quality of work.

Constructive feedback and advice from others and use it to improve performance.

Review of personal performance with an appropriate person at suitably agreed intervals and use the outcome to create a development plan.

The reasons why personal performance should be reviewed.

Learning outcome:

2. Establish and maintain working relationships with others

Learning outcome 2 covers the ability to recognise and use methods to promote working relationships in the workplace as well as the key skills in both verbal and electronic communication.

Topics

- Topic 2.1 Good working relationships
- Topic 2.2 Communication

Range: colleagues, supervisors/managers, persons external to the team e.g. golfers and trade representatives.

Topic 2.1

The importance of working relationships and the ways in which they can be maintained.

Opportunities to improve working practices.

Work practices that require co-operation with others in accordance with required procedures.

Methods for dealing with disagreements within the workplace and own levels of responsibility.

Topic 2.2

Reasons why effective and clear communication is important.

The basic criteria required for effective verbal, electronic or written communication.

Communicate with others in a way which promotes effective working relationships and keeps others informed about work that affects them.

When working with others, such as colleagues, supervisors, managers and persons external to the team, must cover the following:

- seek assistance in a way that does not disrupt work activities when needing help carrying out own tasks
- respond in a timely and positive way when asked to help or provide information to others
- demonstrate the communication of information effectively by email.

Basic information technology skills to communicate information.

Learning outcome:

3. Behaviours and Codes of Practice

Learning outcome 3 covers the behaviours and the Codes of Practice and ethics that a professional Golf Greenkeeper is expected to know and adhere to. These are important in raising the standard of the profession as a whole and to ensure the respect of employer and colleagues.

Topics

- Topic 3.1 Codes of Practice
- Topic 3.2 Good work behaviours

Topic 3.1

The Codes of Practice relating to Greenkeepers and their importance to the industry and the job role, including:

- Greenkeeper's Code of Practice (see Appendix 1)
- Greenkeeper's Code of Ethics (see Appendix 2).

Topic 3.2

Conduct work following the behaviours required by golf club employees. The impact of these behaviours on (a) the business and (b) the team. These behaviours are to have:

- a strong work ethic including pride in work, attention to detail, integrity and time management
- a flexible positive attitude to work
- the ability to work as a lone worker and as a member of a team
- a willingness to learn and contribute to own Continuing Professional Development (CPD)
- a safety mind set for self, colleagues and golfers
- the ability to communicate in a clear and effective manner using a variety of methods to give/receive information accurately and in a timely and positive manner
- the ability to problem solve and make effective decisions.

Guidance for delivery

It is expected that this unit will be delivered in a workplace context with the apprentice working closely with a nominated line manager and a Greenkeeping team. This will allow the apprentice to consolidate operational skills within a real working environment. The apprentice must be provided with the opportunity to carry out all tasks within the unit on sufficient occasions to gain competency of skills and understanding. In addition, it is vital that the apprentice understands the importance of reviewing personal performance and setting targets for the development of skills and knowledge. The apprentice should also be able to work with others to develop communication skills and demonstrate the ability to contribute to the success of teams in the workplace environment at a golf course.

Trainers should be familiar with current systems used to review performance and set targets for development in the workplace. They should also understand the dynamics of team work as well as the ethics, code of conduct and behaviours expected of a professional Golf Greenkeeper.

Positive attitudes to developing self and working with others supports all tasks performed by Golf Greenkeepers and so this unit will underpin the apprentice's training throughout their qualification.

The ability to plan and carry out the development of personal skills and meet work related targets are all necessary skills in the workplace. It is recommended that apprentices carry out an initial assessment of their skills, knowledge and behaviours at the start of the qualification which can be used for comparison as they progress, e.g. a SWOT analysis. The apprentice will then need to agree development needs with an appropriate person and work towards these goals obtaining feedback and adjusting performance as required. A formal, documented appraisal system where targets are set and agreed will be beneficial to help the apprentice assess their progress.

The ability to work well with other staff and other persons (players etc.) within an organisation is vital if employees are to become a valuable addition to the workforce. Recognising opportunities to improve work practices and bring these ideas to the attention of a relevant member of staff is also a desirable skill in employees and as such should be encouraged by managers.

Operating in line with the Greenkeeper's Code of Practice and Code of Ethics is important to maintain the professional image of greenkeeping and so apprentices should know these to be able to work accordingly throughout the other units in this qualification.

Trainers should be up to date with legislation, policies and Codes of Practice used in the taught content. In addition, it is vital that apprentices understand the importance of current legislation and Codes of Practice in relation to the tasks.

Suggested learning resources

Books

GTC Learning Materials Level 2 Various
Published by: Greenkeepers Training Committee
ISBN: 978-0-9573436-2-7

A Handbook of Human Resource Management Practice Armstrong, Michael
Published by: Kogan Page, 2003
ISBN: 978-0-749441-05-0

Human Resource Management at Work Marchington, Mick & Wilkinson, Adrian
Published by: Chartered Institute of Personnel & Development 2012
ISBN: 978-1-843982-67-8

Performance Management: Theory and Practice Hutchinson, Sue
Published by: Chartered Institute of Personnel & Development 2013
ISBN: 978-1-843983-05-7

Websites

- ACAS (Advisory booklet - How to manage performance)
www.acas.org.uk/index.aspx?articleid=2927
- Total Jobs (A guide to appraisals)
www.totaljobs.com/careers-advice/life-at-work/guide-to-appraisals
- Businessballs.com
www.businessballs.com/performanceappraisals.htm

Unit 002

Monitor and maintain health and safety

UAN:	J/508/0100
Level:	2
GLH:	45
Assessment type	Synoptic knowledge and practical tests, trainee statement

What is this unit about?

The purpose of this unit is for apprentices to develop their knowledge and understanding of health and safety issues to enable them to work in a way that protects themselves, others, the security of the workplace and the environment under minimal guidance or direction. Apprentices will also develop an understanding of the legal requirements surrounding health and safety and how they must work to comply with the law.

Learning outcomes

In this unit, apprentices will be able to

1. Monitor and maintain health, safety and security in the workplace
2. Maintain good standards of health and safety of self and others

Scope of content

This unit focuses on developing apprentice understanding of safe working practices. By the end of the unit all apprentices should be able to work with due consideration for the health, safety and security of themselves and other people around them. They will understand how to work within legislative requirements and should be able to outline the key points of the legislation and reporting systems that cover the tasks they carry out. The unit also covers consideration for minimising the environmental impacts of works, including waste management.

Learning outcome:

1. Monitor and maintain health, safety and security in the workplace

This outcome covers the health and safety legislation that needs to be observed in the workplace, as well as the measures that should be taken to control risks and hazards. In addition, the outcome covers the different types of waste and how they could be managed. Finally, the topic of security in the workplace is covered.

Topics

- Topic 1.1 Health and safety legislation
- Topic 1.2 Prevention measures and considerations
- Topic 1.3 Management of waste
- Topic 1.4 Workplace security

Topic 1.1

Role and responsibilities for health and safety in the workplace under the company policy and legislation.

Health and safety information communicated to others in a manner to be understood.

Topic 1.2

The importance of reporting inadequate measures to control risks and that corrective action needs to be taken.

The importance of following manufacturers' and company instructions for products and equipment and the consequences of not doing so.

Workplace accident and emergency procedures, including:

- fires (including the range of firefighting equipment available at own place of work and how to use them)
- chemical spills
- electrical problems
- specific emergencies affected by location
- how, why and to whom accidents should be reported.

The groups of people at higher risk in the workplace and specify risks relevant to child safety.

Health and safety risks in relation to the workplace, covering:

- people
- equipment
- materials
- the work area.

Specified measures to control risks and inform appropriate persons if such measures are inadequate.

The procedure for seeking guidance on measures to control unfamiliar risks arising from non-routine work situations.

The use of equipment and materials in line with the manufacturer's instructions and company training.

Topic 1.3

The types of waste arising from own workplace (hazardous and non-hazardous) and the correct methods of disposal.

Safe disposal of hazardous and non-hazardous waste in accordance with own responsibilities.

Topic 1.4

Company policy with regard to workplace security.

The importance of security and safety in relation to the workplace.

Transportation of equipment and materials safely and correct storage when not in use.

Maintenance of workplace security in accordance with company policy.

Learning outcome:

2. Maintain good standards of health and safety of self and others

This outcome covers the ways to maintain own health and safety and that of others in the work environment, including in case of emergencies. In addition, it covers how working practices should take into consideration the environmental impact they have.

Topics

- Topic 2.1 Safety of self and others
- Topic 2.2 Environmental awareness

Topic 2.1

Requirements for maintaining own health and safety and that of others in the workplace, including:

- employee's role in maintaining own health and safety and that of others
- use and care of personal protective equipment (PPE) and clothing
- safe methods for moving and lifting items
- the reasons for maintaining good personal and workplace hygiene
- the reasons for leaving information about your whereabouts when working in isolation or remote locations.

Personal ability to deal with health and safety emergencies and the reasons for not acting beyond own capabilities, to include:

- basic first aid procedures
- reporting procedures and why they are important.

Work with due care for health and safety policies, which may include:

- uses and care for the PPE and clothing necessary for work
- use approved methods and handling equipment when moving and lifting items
- maintain personal and workplace hygiene
- give accurate information about whereabouts when working
- behave in a manner which minimises the risks to self and others
- use and carry personal medication in accordance with company policy
- keep necessary records accurate, legible and complete.

Topic 2.2

Course maintenance practices affect the environment and the methods for minimising environmental damage during work.

The importance of environmental and ecological best practice.

Guidance for delivery

Health and safety underpins all tasks performed by the Golf Greenkeeper and so this unit can be cross referenced to all other units in the qualification.

It is anticipated that the delivery of this unit will be through supervised practical training allowing the apprentice to consolidate operational skills within a real working environment at a golf facility. The apprentice must be provided with the opportunity to carry out all tasks within the unit on sufficient occasions to gain competency of skills and understanding. In addition, it is vital that the apprentice understands the importance of maintaining awareness of current legislation and Codes of Practice in relation to the tasks.

Trainers should be up to date with legislation, policies and Codes of Practice used in the taught content including but not limited to:

- Health and Safety at Work Act (HASWA)
- The Management of Health and Safety at Work Regulations
- The Provision for Use of Work Equipment Regulations (PUWER)
- Manual Handling Operations Regulations
- Noise at Work Regulations
- Personal Protective Equipment at Work Regulations (PPE)
- Control of Substances Hazardous to Health (COSHH)
- Food and Environment Protection Act (FEPA)
- The Plant Protection Products (sustainable use) Regulations
- Control of Vibration at Work Regulations

Suggested learning resources

Books

GTC Learning Materials Level 2 Various
Published by: Greenkeepers Training Committee
ISBN: 978-0-9573436-2-7

Tolley's Health and Safety at Work Handbook 2015 Various
Published by: Tolley 2014
ISBN: 978-1-405788-18-

Easy Guide to Health and Safety Hughes, P & Hughes, L
Published by: Elsevier 2008
ISBN: 978-0-7506-69-54-2

Health and Safety in Brief Ridley, John
Published by: Elsevier 2004
ISBN: 978-0-7506-8639-6

The Health and Safety Toolbox HSE
Published by: HSE Books 2014
ISBN: 978-0-7-17665-87-7

Common Sense Guide to Health & Safety at Work Ludhra, Subash
Published by: Routledge 2014
ISBN: 978-0-415835-44-2

Introduction to Health and Safety at Work 5th Edition Hughes, Phi & Ferrett, Ed
Published by: Taylor and Francis Ltd
ISBN: 978-0-0-8970-70-7

Health & Safety at Work Essentials. 8th Edition Chadder, P. & Duncan, M.
Published by: Lawpack Publishing Ltd. 2014
ISBN: 978-1-910143-00-1

Journals and magazines

- Health and Safety at Work Magazine www.healthandsafetyatwork.com/hsw/

Websites

- Health and Safety Executive <http://www.hse.gov.uk>
- Health and Safety Executive (A brief guide to controlling risks in the workplace) www.hse.gov.uk/pubns/indg163.pdf
- Health and Safety Executive (Manual Handling at Work – A brief guide) www.hse.gov.uk/pubns/indg143.pdf
- Health and Safety Executive www.hse.gov.uk/coshh/
- Health and Safety Executive (Manual handling) www.hse.gov.uk/pubns/manlinde.htm
- Health and Safety Executive www.hse.gov.uk/riddor/
- Health and Safety Executive www.hse.gov.uk/risk/fivesteps.htm
- Health and Safety Executive (A step by step guide to COSHH assessment) www.hse.gov.uk/pubns/priced/hsg97.pdf

- Health and Safety Executive (Health and Safety at work Act 1974) www.hse.gov.uk/legislation/hswa.htm
- Health and Safety Executive www.hse.gov.uk/work-equipment-machinery/puwer.htm
- Health and Safety Executive (Personal protective equipment at work - A brief guide) www.hse.gov.uk/pubns/indg174.pdf
- Health and Safety Executive – Food and Environment Act (FEPA) 1985 and Control of Pesticides Regulations 1986 (COPR) www.pesticides.gov.uk/guidance/industries/pesticides/topics/pesticide-approvals/legislation/fepa-and-copr
- Health and Safety Executive www.hse.gov.uk/vibration/
- Health and Safety Executive www.hse.gov.uk/noise/index.htm
- Health and Safety Executive (Pesticide storage and use) www.hse.gov.uk/pubns/ais16.pdf
- Health and Safety Executive – (Machinery including chainsaws, brush cutters, diggers, ground maintenance machinery) www.hse.gov.uk/pubns/indg317.pdf
- Health and Safety Executive – (Lone working) www.hse.gov.uk/pubns/indg73.pdf
- The Royal Society for the Prevention of Accidents (ROSPA) <http://www.rosipa.com/>

Unit 003

Use and maintain equipment and machines

UAN:	L/508/0101
Level:	2
GLH:	135
Assessment type	Synoptic knowledge and practical tests, trainee statement

What is this unit about?

The purpose of this unit is for apprentices to develop the knowledge and skills required to use and maintain non-powered tools and equipment, hand held powered tools and equipment, pedestrian controlled powered equipment and ride-on powered equipment correctly and safely with due regard to manufacturers' instructions and legal regulatory requirements.

The ability to use a wide range of machinery and equipment as well as having an understanding of how it is maintained is a vital part of the modern Golf Greenkeeper's work. Apprentices will be expected to be able to use and maintain a wide range of equipment and machinery in a golf course environment.

Learning outcomes

In this unit, apprentices will be able to

1. Use equipment and machinery
2. Carry out maintenance to equipment and machinery

Scope of content

This unit focuses on developing apprentice understanding of correct use of tools and equipment to make tasks carried out safer and more efficient. Maintenance requirements are also covered in this unit including understanding the workings of basic engine components. The apprentice will understand safe handling of hazardous substances and the correct disposal of waste products.

Unit Range

- non-powered tools and equipment
- hand held powered tools and equipment
- pedestrian controlled powered equipment
- ride-on powered equipment

Learning outcome:

1. Use equipment and machinery

This outcome covers the selection and use of personal protective equipment (PPE) when using equipment and machinery in the workplace. In addition it covers the use of equipment and machinery in a golf course environment.

Topics

- Topic 1.1 Preparing equipment for use
- Topic 1.2 Using equipment safely

Topic 1.1

Correct item of equipment for the planned task including any required personal protective equipment (PPE).

Purpose of the required PPE and why it must be worn correctly.

Pre-operational checks to ensure the equipment is safe and in good working order, including:

- correct pre-use checks
- correct start-up procedure for powered equipment
- appropriate work method
- correct stopping procedure for powered equipment.

Pre-operational maintenance that may be required on the range of equipment.

Manufacturer's instructions for the maintenance and operation of the equipment.

Relevant legislation and Codes of Practice that affect the task.

Reporting systems at own workplace.

Topic 1.2

Set up and use the equipment and machinery in accordance with the manufacturer's instructions and legal and regulatory requirements.

Use equipment in a manner that ensures the safety of self and others and meets all relevant legislation and Codes of Practice.

The main hazards and risks associated with using the tools and equipment.

The types of problems that may occur and how to deal with each correctly.

Respond to problems as they occur, which may include:

- identification of any problems
- taking corrective action.

Work in a manner which minimises environmental damage.

Safe and correct disposal of any waste, which may include:

- organic
- inorganic
- hazardous
- non-hazardous.

Maintenance, cleaning and storage of equipment correctly after use.

Learning outcome:

2. Carry out routine maintenance to equipment and machinery

This outcome covers routine maintenance of equipment/machinery and the correct disposal of waste resulting from maintenance operations in a golf course environment. In addition it covers the operating system used in 2 and 4 stroke engines of the type that a apprentice will encounter working at a golf course

Topics

- Topic 2.1 Routine maintenance requirements
- Topic 2.2 Routine maintenance of equipment and machinery
- Topic 2.3 Hazardous substances and waste disposal
- Topic 2.4 Key components of engines

Topic 2.1

Methods of maintaining equipment and machines, the reasons for maintaining equipment and machines, and the possible consequences of not maintaining them correctly.

Relevant legislation and Codes of Practice relating to the maintenance of the equipment and machinery.

Levels of responsibility in relation to the maintenance of equipment and machinery and whom to go to for advice.

The dangers of stored energy.

Topic 2.2

Prepare equipment and machinery for safe maintenance and isolated from its power source. Power source may be electric or fuel.

Maintenance of equipment and machinery in accordance with:

- manufacturer's instructions
- standard procedure
- legislation.

Maintenance of health and safety and ensure all relevant legislation and Codes of Practice are met.

The need for advice and assistance and how to refer to the appropriate member of staff.

Preparation and use of tools and materials for the maintenance operation.

Types of PPE for the task.

Work in a manner which minimises environmental damage.

Cleaning, servicing and storage of tools and equipment after use.

Condition of work area safe and suitable for maintenance works.

Topic 2.3

Hazardous chemicals and substances which may be present during equipment maintenance and ways of minimising leakage.

Precautions to minimise dangers from chemicals before work starts.

Safe and correct disposal of any waste, to include:

- hazardous
- non-hazardous.

Topic 2.4

The operating differences between two and four stroke engines.

The principles of lines of drive-clutch, v-belts and chains.

The basic differences between petrol and diesel engines.

Guidance for delivery

The content of this unit can be cross referenced to other units in the qualification where tools and equipment are used.

Trainers need to be aware of the need to safeguard apprentices when delivering units where the operation of machinery is involved. This unit requires the apprentice to undertake machinery operations under close supervision, and this is the same for any unit within the qualification that requires the apprentice to operate or maintain machinery. Throughout the unit, the emphasis should be on safe working and apprentices must demonstrate a knowledge of relevant legislation. It is a requirement for the apprentice to operate machinery therefore health and safety issues relevant to the operation of the machinery used must be stressed and regularly reinforced. The apprentice is expected to be actively involved with the trainer in a verbal risk assessment prior to the task and use of any machinery/equipment used.

All equipment/machinery being used must comply with relevant requirements of the Provision and Use of Work Equipment Regulations (PUWER) 1998. Adequate Personal Protective Equipment (PPE) appropriate to the apprentice, the machinery and the task must be provided and worn in accordance with the associated risk assessment, industry guidance and operator's manual.

Trainers should be up to date with legislation, policies and Codes of Practice used in the taught content. The trainer should ensure there is adequate access to first aid and a method of communication (mobile phone etc.) is available should an incident occur.

It is anticipated that the delivery of this unit will be through supervised practical training allowing the apprentice to consolidate operational skills within a real working environment at a golf facility. The apprentice must be provided with the opportunity to carry out all tasks within the unit on sufficient occasions to gain competency of skills and understanding. It is vital that the apprentice understands the importance of maintaining awareness of current legislation and Codes of Practice in relation to machine use and maintenance.

The maintenance should be carried out in line with the manufacturer's guidance and/or instructions.

Suggested learning resources

Books

- GTC Learning Materials Level 2 Various
Published by: Greenkeepers Training Committee
ISBN: 978-0-9573436-2-7
- Walk-Behind Lawn Mower Ed 5 (Walk Behind Lawn Mower Service Manual) Penton
Published by: Penton Media, Incorporated; 4th edition (May 1997)
ISBN: 978-0-872886-47-6
- How to Repair Briggs and Stratton Engines, 4th Ed. Dempsey, Paul Stephen
Published by: McGraw-Hill Professional; 4 edition (1 July 2007)
ISBN: 978-0-071493-25-3
- Small Engine Repair: 5.5 HP Thru 20 HP Four Stroke Engines (Haynes Techbook) Various
Published by: Haynes Publishing (27 Aug. 1999)
ISBN: 978-1-563922-98-5
- Two-Stroke Engine Repair and Maintenance Dempsey, Paul
Published by: McGraw-Hill Professional; 1 edition (1 Oct. 2009)
ISBN: 978-0-071625-39-5
- Lawnmower Manual Radam, Brian J
Published by: H.Haynes (6 Jun. 2014)
ISBN: 978-0-857333-08-7
- Chainsaw Operator's Manual: The Safe Use of Chainsaws Kestel, B
Published by: Australia: Landlinks Press. 2009
ISBN: 978-0-643090-28-6
- Machinery for Horticulture 2nd Revised Edition Bell, B.& Cousins, S
Published by: Old Pond Publishing Ltd; (Feb. 1997)
ISBN: 978-0-852363-69-0

Journals and magazines

- Arboricultural Association Newsletter

Websites

- The Health and Safety Executive <http://www.hse.gov.uk>
- The British Agricultural and Garden Machinery Association <http://www.bagma.com>
- Horticultural Week (Machinery Tests) <http://www.hortweek.com/machinery-tests>
- Animated Engines.com <http://www.animatedengines.com/index.html>
- Five Hundred And Seven Mechanical Movements <http://507movements.com/toc.html>

Unit 004

Prepare and operate a tractor with attachments

UAN:	R/508/0102
Level:	2
GLH:	75
Assessment type	Synoptic knowledge and practical tests, trainee statement

What is this unit about?

The purpose of this unit is for apprentices to develop the knowledge, understanding and skills required to prepare and operate a tractor with attachments with minimal direction or guidance.

The ability to operate (with attachments) and maintain a tractor safely and efficiently is a vital skill for a modern Golf Greenkeeper. This unit is designed to ensure students understand the operational procedures and risks when using these powerful items of machinery in a golf course environment and if required on the public highway.

Learning outcomes

In this unit, apprentices will be able to

1. Prepare a tractor with attachments for operation
2. Operate a tractor and its attachments

Scope of content

This unit focuses on developing apprentice understanding of using tractors with attachments in accordance with health and safety legislation, Codes of Practice and the tractor's capabilities. The apprentice will cover pre-start checks and adjustments to ensure safe and efficient use, and the types of attachment available.

Many of the tasks on the golf course require the use of a tractor. Therefore the ability to operate a tractor and attachments safely is a critical task for the trainee Greenkeeper.

The Greenkeeper's Code of Practice should be maintained throughout all operations.

Learning outcome:

1. Prepare a tractor with attachments for operation

This outcome is designed to cover the checks that must be made to ensure a tractor is safe to operate as well as the correct methods of attaching equipment to the tractor. In addition it covers the conditions that might be encountered during tractor use and how operational procedure may need to change to suit these, as well as the correct use of signals and indicators on the golf course and public highway environments.

Topics

- Topic 1.1 Pre-start checks and adjustments
- Topic 1.2 Types of attachment

Topic 1.1

Pre-start checks and adjustments to tractor and attachments in accordance with standard procedures.

Topic 1.2

Types of attachment and their safe use, to include:

- how attachments should be secured to the tractor
- types of attachment that are safe for use with the vehicle and those that are not
- conditions which should be taken into account when considering the use of attachments
- how conditions might affect tractor and attachment use
- the correct use and duration of warning signals and indicators.

Learning outcome:

2. Operate a tractor and its attachments

This outcome is designed to cover the safe operational use of a tractor and its attachments in the golf course environment. In addition it covers the hazards that might be encountered during tractor use and how operational procedures may need to change to suit these.

Topics

- Topic 2.1 Operate a tractor with attachments safely

Topic 2.1

Operate a tractor and conduct all movements of the vehicle safely, and consistently with the type of vehicle and operation.

Check attachments are secure and safe, and use them safely throughout operations, to include:

- loader
- trailer
- mounted implement.

The expected efficiency of the vehicle performance and maintenance of this through the appropriate handling and use of the vehicle.

The impacts of expected efficiencies on operations.

Modifications of operating procedures to take into account any changes in weather, ground conditions and types of terrain, to include:

- conditions: wet, dry, frost
- terrain: hard surfaces, soft surfaces, slopes.

Assessment and action of hazards or obstacles encountered during an operation in accordance with standard practice.

The reasons for leaving the vehicle safe after use and in a condition suitable for future use.

Maintenance of records to meet organisational and legislative requirements.

Guidance for delivery

This unit can be cross referenced with other units where tractors with attachments are used as well as health & safety, safe, efficient and effective use of equipment and its maintenance and present and maintain turf playing surfaces for golf.

Throughout the unit the emphasis should be on safe working and apprentices must demonstrate a knowledge of relevant legislation. It is a requirement for the apprentice to operate machinery, therefore, health and safety issues relevant to the operation of the machinery used must be stressed and regularly reinforced. The apprentice is expected to be actively involved with the trainer in a verbal risk assessment prior to the use of any machinery/equipment.

Safety implications need to be stressed specifically when operating tractors on undulating ground, in enclosed areas and when using loaders, mounted or trailed implements.

All equipment/machinery being used must comply with relevant requirements of the Provision and Use of Work Equipment Regulations (PUWER) 1998. Adequate Personal Protective Equipment (PPE) appropriate to the apprentice, the machinery and the task must be provided and worn in accordance with the associated risk assessment, industry guidance and operator's manual.

Apprentice competence in the use of a tractor is a prerequisite for using trailed or mounted equipment. Trainers should be up to date with legislation, policies and Codes of Practice used in the taught content. Incompetent tractor use can lead to personal injury to the operator and those in the immediate area as well as risk of damage to turf surfaces.

It is anticipated that the delivery of this unit will be through supervised practical training allowing the apprentice to consolidate operational skills within a real working environment at a golf facility. The apprentice must be provided with the opportunity to carry out all tasks within the unit on sufficient occasions to gain competency of skills and understanding. The quality of the finish must also be stressed throughout tasks. In addition, it is vital that the apprentice understands the importance of maintaining awareness of current legislation and Codes of Practice in relation to the tasks.

Apprentices are to be aware that all tasks should be undertaken at the correct time of year and in appropriate weather conditions and training should be carried out likewise.

Maintenance should be carried out in line with the manufacturer's guidance and/or instructions.

Suggested learning resources

Books

- GTC Learning Materials Level 2 Various
Published by: Greenkeepers Training Committee
ISBN: 978-0-9573436-2-7
- Farm Tractor Maintenance Brown, D.A. Morrison, G.I.
Published by: Literary Licensing, LLC 2013
ISBN: 978-1-258806-18-7
- Farm Tractor Systems: Maintenance & Operation: 2
(Farm Power & Mechanization) Segun, E. & Bello R.
Published by: CreateSpace Independent Publishing Platform; 2 edition (30 Nov. 2012)
ISBN: 978-1-481022-92-7
- Tractor Power Williams, M
Published by: Farming Press. (2000)
ISBN: 978-0-852365-14-4
- Tractor Operation and Maintenance Southorn, N
Published by: Inkata Press 1999
ISBN: 978-0-750689-14-4
- Tractors (Fundamentals of Machine Operation) 4th edition Hathaway, L.
Published by: Deere & Co; 4 edition (Jun. 2008)
ISBN: 978-0-866913-51-5

Websites

- Health And Safety Executive (Using Tractors Safely) <http://www.hse.gov.uk/pubns/indg185.pdf>
- John Deere https://www.deere.co.uk/en_GB/products/equipment/tractors/tractors.page

Unit 005

Present and maintain turf playing surfaces for golf

UAN:	Y/508/0103
Level:	2
GLH:	195
Assessment type	Synoptic knowledge and practical tests, trainee statement

What is this unit about?

The purpose of this unit is for apprentices to develop the knowledge and skills necessary to present and maintain golf sports turf surfaces so that they meet the requirements of the sport. Apprentices will cover a range of turf maintenance activities including irrigation and drainage.

The correct preparation of the entire range of playing surfaces (tees, fairways, roughs, greens etc.) for the game of golf is the key area of skills and knowledge for the Golf Greenkeeper.

Learning outcomes

In this unit, apprentices will be able to

1. Present and maintain sports surfaces and facilities for play
2. Monitor and maintain irrigation and drainage systems

Scope of content

This unit focuses on the range of activities required to keep sports turf at a standard that is suitable for playing golf including: rolling, switching/brushing, scarifying/grooming/verti-cutting, aerating and top dressing, as well as mowing the different areas of the course. The application of fertilisers and turf conditioners will also be covered. Apprentices will be required to monitor and maintain irrigation and drainage systems as well as understanding the implications of water on turf surfaces.

Throughout the unit the apprentice will be required to select and use hand tools, powered equipment and materials correctly, competently and safely. They must decide the appropriate timing of operations and the best work methods to be used, they must then check the results and correct any faults. Appropriate maintenance and storage of equipment must also be covered for each activity.

The emphasis should be on safe working throughout. It is expected that the apprentices are guided towards safe working practices and minimising environmental impact. The relevant legislation and Codes of Practice affecting the tasks must be addressed and understood by the apprentice.

The Greenkeeper's Code of Practice should be adhered to throughout the task.

Unit range:

Turf preparation activities:

- Switching or brushing
- Scarifying/grooming/verti-cutting turf with one of the following: pedestrian machine, trailed machine, ride-on machine or mounted machine
- Aerating turf with one of the following: pedestrian machine, ride-on machine or mounted machine
- Applying top dressing by hand or machine
- Rolling

Mowing surfaces:

- rough
- semi-rough
- fairways
- surrounds and approaches
- teeing grounds
- putting surfaces.

Learning outcome:

1. Present and maintain sports surfaces and facilities for play

This outcome covers the maintenance and presentation of playing surfaces in a golf course environment.

Topics

- Topic 1.1 Turf preparation activities
- Topic 1.2 Mowing turf surfaces on golf courses
- Topic 1.3 Applying fertilisers/turf conditioner

Topic 1.1

The purpose of the different preparation activities listed in the unit range.

Selection and preparation of the most suitable equipment for carrying out the different preparation activities.

The reasons for choosing specific equipment.

The importance of timing, weather and seasonal effects on the preparation tasks.

The possible risks from preparation tasks and how to reduce them, to include:

- clearing surface debris before and after activity
- correct disposal of debris
- assessing suitability of ground conditions.

The preparation and application for top dressing, to include:

- preparation procedure
- factors affecting methods, materials and rates of application
- the importance of an even application
- the importance of not smothering the grass blades
- the importance of finish required.

Preparation activities to be carried out safely, efficiently and effectively, to include:

- ensuring surface is prepared and in a suitable condition for the task
- clearing and disposing of surface debris
- correct use of equipment
- the correct approach to the task e.g. overlap, depth of work, even treatment/application and top dressing worked in effectively and efficiently
- ensure quality and appearance of surface is maintained
- ensure finish is suitable for requirements of sport and event
- work carried out to minimise waste and damage to the environment.

Topic 1.2

The types of machine suitable for mowing the turf surfaces listed in the unit range. Apprentices need to explain the uses of these types of machine.

The effects of season, climate, ground conditions and soil conditions on mowing activities.

Mowing activities carried out safely, efficiently and effectively, to cover:

- ensuring the surface is in a fit condition
- clearing and appropriate disposal of debris before and after mowing
- correct use and preparation of equipment
- preparing the playing surface so that it meets the requirements of the sport and the standard for the event
- maintaining the quality and appearance of surfaces
- working in a manner which minimises environmental damage.

The importance of ensuring the surface meets the required standard and how to do so.

The effects of mowing on turf surfaces.

Topic 1.3

Range: pedestrian distributor, mounted distributor or sprayer.

The range of nutrients in fertilisers and turf conditioners available and their effects on turf.

The uses, merits and limitations of fertilisers and turf conditioners on fine turf.

Calculate the timing and rates of application.

The methods of application and reason for choice of dry, powder, granular and liquid formulations.

Fertiliser/turf conditioner application carried out safely, efficiently and effectively, to include:

- select and prepare appropriate machine/equipment
- ensure equipment is filled safely
- check the turf surface for debris before and following application
- ensure the machine is operated correctly and at a uniform speed
- ensure an even application and that waste is kept to a minimum
- leave surfaces neat and tidy and in a condition suitable to play
- carry out work in a manner which minimises environmental damage.

The importance of checking the turf surface for debris before and after application.

Learning outcome:

2. Monitor and maintain irrigation and drainage systems

This outcome covers the monitoring and maintenance of irrigation and drainage systems in a golf course environment.

Topics

- Topic 2.1 Irrigation systems
- Topic 2.2 Drainage systems

Topic 2.1

The importance of water in soil and turf, to include:

- the terms relating to water in the soil
- the process of evapotranspiration and its effect on grass
- signs of water stress in turf
- the effects of over-watering
- the effects of irrigation on turf surface characteristics.

The factors affecting irrigation, to include:

- the purpose of irrigation
- the importance of water quality
- when irrigation should commence
- timing and frequency of irrigation.

Irrigation systems used on golf courses, to include:

- range of equipment available
- the maintenance operations for installed or mobile irrigation systems
- the basic layout of an installed irrigation system.

Irrigation activities carried out safely, efficiently and effectively, to include:

- select, prepare and use equipment which is effective and suitable for the task
- apply water so the appearance and quality of the surface is maintained and enhanced overall
- identify turf under drought stress
- apply manually and/or automatically an even distribution of water.

Basic maintenance to irrigation equipment on the golf course.

Topic 2.2

The reasons how soil type affects drainage requirements.

The benefits of drainage with regards to the following:

- play
- plant health.

The basic method of installing a drain including the suitable range of fall.

Basic maintenance to drainage systems, to include:

- understand the main causes of drain malfunction
- identify problems with drainage systems
- deal with problems affecting drainage systems
- dispose of any waste correctly
- leave the area in a suitable condition on completion of the operation.

Guidance for delivery

There is scope within this unit to cross reference with activities in other units in the qualification including safe, efficient and effective use of equipment and its maintenance, plant and soil science and fertiliser use, health & safety and operating tractors.

Throughout the unit, the emphasis should be on safe working and apprentices must demonstrate knowledge of relevant legislation. It is a requirement for the apprentice to operate machinery therefore health and safety issues relevant to the operation of the machinery used must be stressed and regularly reinforced. The apprentice is expected to be actively involved with the trainer in a verbal risk assessment prior to the activity, to include the use of any machinery/equipment involved. For example the apprentice should note risks from the machinery/equipment and the environment (slopes, lakes etc.).

All equipment/machinery being used must comply with relevant requirements of the Provision and Use of Work Equipment Regulations (PUWER) 1998. Adequate Personal Protective Equipment (PPE) appropriate to the apprentice, the machinery and the task must be provided and worn in accordance with the associated risk assessment, industry guidance and operator's manual.

Apprentice competence in the use of a tractor is a prerequisite for using trailed or mounted equipment. The apprentice must hold a certificate of competence if pesticides are used or work under the close supervision of a qualified person for the duration of the task. Trainers should be up to date with legislation, policies and Codes of Practice used in the taught content.

It is anticipated that the delivery of this unit will be through supervised practical training allowing the apprentice to consolidate operational skills within a real working environment at a golf facility. The apprentice must be provided with the opportunity to carry out all tasks within the unit on sufficient occasions to gain competency of skills and understanding. The quality of the finish must also be stressed throughout tasks. In addition, it is vital that the apprentice understands the importance of maintaining awareness of current legislation and Codes of Practice in relation to turf maintenance.

Apprentices are to be aware that all tasks should be undertaken at the correct time of year and in appropriate weather conditions and training should be carried out likewise.

Further Guidance

Topic 1.1. Rolling is now commonly accepted and used in practice in the industry. For the best results the ground conditions must be carefully assessed before carrying out the operation. Rolling may take place on established turf in order to improve the surface for play or prior to a competition. Rolling might also take place on new areas i.e. prior to initial cut.

Topic 2.1. For irrigation, emphasis must be placed on uniformity of application either by hand or automatic methods. The apprentice must reach a competent level of irrigating turf manually or by using an automatic system as appropriate to their workplace. Basic maintenance to irrigation equipment on the golf course could include, for example, maintaining pop-ups.

Topic 2.2. Should the apprentice not have access to a drainage system at their place of work, the assessment criteria can be covered at a college/provider or alternative workplace.

Suggested learning resources

Books

GTC Learning Materials Level 2 Published by: Greenkeepers Training Committee ISBN: 978-0-9573436-2-7	Various
Practical Greenkeeping Published by: The Royal & Ancient Golf Club of St Andrews 1997 ISBN: 978-0-907583-04-2	Arthur, J
Turf Management For Golf Courses Published by: John Wiley & Sons; 2nd Edition (1 Oct. 2001) ISBN: 978-1-575040-92-9	Beard, JB
Turf Culture 2nd Edition Published by: Cassell 1990 ISBN: 978-0-304318-54-4	Hope, F
Care Of The Golf Course 2nd Ed Published by: Sports Turf Research Institute (31 Dec. 1992) ISBN: 978-1-873431-0-23	Hayes, P
Fundamentals Of Turf Grass Management Published by: John Wiley & Sons; 4th Edition (22 July 2011) ISBN: 978-0-470587-31-7	Christians, N.E.
Sports Turf and Amenity Grassland Management Published by: The Crowood Press Ltd (16 Dec. 2005) ISBN: 978-1861267-90-0	Brown, Stuart
Sports Turf: Science, Construction And Maintenance Published by: Routledge (28 Oct. 1993) ISBN: 978-0-419149-50-7	Stewart, V.I.
The Care of the Golf Course Published by: Sports Turf Research Institute ISBN: 978-1873431-19-1	Perris, Jeffrey & Evans, Roger
STRI Guidelines to Golf Green Construction in the United Kingdom Published by: STRI 2005 ISBN: 978-1873431-59-7	Various
Fertilisers For Fine Turf (2nd Ed) Published by: STRI 1996 ISBN: 978-1873431290	Lawson, D.M.
Rootzones, Sands and Top Dressing Materials for Sports Turf Published by: STRI 2006 ISBN: 978-1873431-60-3	Dr. Baker, S

Sports Turf and Amenity Grassland Management Brown, S
Published by: The Crowood Press Ltd 2005
ISBN: 978-1-861267-90-0

Turf Irrigation Manual Choate, Richard B & Watkins, James
Published by: Telsco Industries 1994
ISBN: 978-0-963509-60-4

Water Use Efficiency in Turf and Landscape Irrigation Connellan, Geoff
Published by: CSIRO 2013
ISBN: 978-0-643094-29-1

Turfgrass and Landscape Irrigation Water Quality Carrow, R., Huck, N., Michael T. R., & Duncan, R.
Published by: CRC Press 2015
ISBN: 978-1-420081-93-0

Applied Principles of Horticulture 2nd Edition Brown, L.V.
Published by: Butterworth Heinemann 2002
ISBN: 978-0-750629-54-6

Principles of Horticulture Level 2 Adams, C.R. Early, M., Brook, J. & Bamford, K.
Published by: Routledge 2015
ISBN: 978-0-415-859-08-0

Practical Golf Course Maintenance: The Magic Of Greenkeeping. 3rd Ed. Witteveen, G. & Bavier, M.
Published by: John Wiley & Sons; 3rd Edition (14 Dec. 2012)
ISBN: 978-1118143742

Turfgrass Management (9th Edition) Turgeon, A.J.
Published by: Harlow: Pearson Education 2011
ISBN: 978-0-137074-35-8

Journals

- Journal of Turfgrass and Sports Surface Science (Sport Turf Research Institute)
- Greenkeeper International (British and International Golf Greenkeepers Association)
- The Groundsman (Institute of Groundsmanship)
- Pitchcare Magazine (Pitchcare)

Websites

- Royal and Ancient Golf Club <http://www.randa.org/>
- British and International Golf Greenkeepers Association <http://www.bigga.org.uk/>
- Institute of Groundsmanship <http://www.iog.org/>
- Boughton - useful root-zone calculator www.boughton.co.uk/useful-information/topsoil-calculator/
- The Handbook of Technical Irrigation Information http://www.hunterindustries.com/sites/default/files/tech_handbook_of_technical_irrigation_information.pdf
- The R&A www.golfcoursemanagement.randa.org
- The United States Golf Association www.usga.org

Unit 006

Renovate and repair sports turf surfaces

UAN:	D/508/0104
Level:	2
GLH:	120
Assessment type	Synoptic knowledge and practical tests, trainee statement

What is this unit about?

The purpose of this unit is for apprentices to develop the knowledge and skills required to renovate and repair turf surfaces for golf so that they meet the requirements of the sport. This includes the identification and control of threats to the health of the turf.

The skills and knowledge involved in this unit include the ability to use a range of equipment to carry out repair and renovation on the golf course. Apprentices will also be expected to undertake the common methods of repair and renovation, in an industrial context. In addition they will be able to deal with a range of threats to the health of the turf surfaces on a golf course using cultural, chemical or physical control methods.

Learning outcomes

In this unit, apprentices will be able to

1. Renovate and repair sports turf surfaces
2. Maintain the health of sports turf

Scope of content

This unit focuses on the skills and knowledge required to repair sports turf after play, specifically the repair of divot holes, overseeding, patching or plugging and forking up. The apprentice will also be aware of the range of weeds, pests, diseases, disorders and moss to be able to recognise and diagnose plant problems. A range of options for the control of plant problems will be covered along with the legislative and environmental implications relating to control methods.

Throughout the unit, the emphasis should be on safe working. It is expected that apprentices are guided towards safe working practices and minimising environmental impact. The relevant legislation and Codes of Practice affecting the tasks in this unit must be addressed and understood by the apprentice.

The Greenkeeper's Code of Practice should be adhered to throughout the task.

Unit Range:

Renovation and repair:

- overseeding
- patching or plugging
- forking up

Repairing divot holes on:

- greens
- tees
- fairways
- surrounds
- approaches

Threats to turf health:

- weeds
- pests
- diseases
- disorders
- moss

Control methods for threats:

- physical
- cultural
- chemical

Learning outcome:

1. Renovate and repair sports turf surfaces

This outcome covers the inspection and identification of areas in need of repair or renovation on golf playing surfaces. Apprentices must be able to determine a suitable method of dealing with damaged areas and carry out the action required in a golf course environment.

Topics

- Topic 1.1 Renovation and repair of turf
- Topic 1.2 Repairing divot holes

Topic 1.1

The importance of renovating and repairing surfaces to the required standard and the consequences of not doing so.

Renovation and repair activities to turf safely, efficiently and effectively, to include:

- inspect surfaces as requested
- identify and assess surfaces in need of renovation and repair
- select renovation and repair methods that are appropriate to the damage to the surface
- select tools and equipment that are suitable for the repair job
- use tools and equipment safely and efficiently
- prepare the surface and understand why this is important
- use the selected renovation and repair methods safely and correctly
- re-instate the surface so that it meets the requirements of the sport and the standard of the event
- dispose of waste safely and correctly
- work in a manner which minimises environmental damage
- prepare, maintain, clean and store equipment securely and correctly. Apprentices must also be able to explain the reason for doing so.

Topic 1.2

The areas of the course that are most susceptible to divot holes and why the problem has occurred.

The reasons for repairing divot holes and the timing and frequency of the task.

The suitable materials and seed mix for the task.

Repairs to divot holes, to include:

- select and use tools and equipment correctly
- identify areas in need of repair and select the correct method of treatment
- carry out any required preparation i.e. removal of loose debris
- complete work to the required standards and ensure surface is left in a suitable condition for play.

Learning outcome:

2. Maintain the health of sports turf

This outcome covers the inspection and identification of threats to the quality of golf playing surfaces. Apprentices must be able to determine a suitable method of dealing with the threat and carry out the action required in a golf course environment while maintaining safety of self/others and environment.

Topics

- Topic 2.1 Identifying threats to turf health
- Topic 2.2 Turf treatments

Topic 2.1

The reasons for controlling threats to sports turf surfaces, to include the following:

- what effect the threats have on the turf
- why it is important to deal with threats promptly.

Common weeds, pests, diseases, disorders and moss in turf.

Turf inspection as requested to identify and report conditions that threaten the health of turf.

The reasons for reporting the conditions that affect sports turf and who these should be reported to.

Topic 2.2

Sources of information on turf treatments.

The effect of turf treatments, when and how to use these treatments effectively, including the approved procedures and why they are important to follow.

Appropriate use of equipment as per the manufacturer's instructions and legal requirements to control threats.

Safe and effective application of treatments without damage to surrounding areas, as instructed.

Safe disposal of waste material with minimal environmental pollution.

Cleaning, maintenance and secure storage of equipment after treatments. The reasons why safety measures are important.

The relevant pieces of legislation and Codes of Practice appropriate to this task.

Work in a manner which minimises environmental damage.

Guidance for delivery

There is scope within this unit to cross reference with activities in other units in the qualification including health & safety, safe, efficient and effective use of equipment and its maintenance, plant and soil science and fertiliser use.

Throughout the unit, the emphasis should be on safe working and apprentices must demonstrate a knowledge of relevant legislation. It is a requirement for the apprentice to operate machinery therefore health and safety issues relevant to the operation of the machinery used must be stressed and regularly reinforced. The apprentice is expected to be actively involved with the trainer in a verbal risk assessment prior to the task and the use of any machinery/equipment or chemicals used.

All equipment/machinery being used must comply with relevant requirements of the Provision and Use of Work Equipment Regulations (PUWER) 1998. Adequate Personal Protective Equipment (PPE) appropriate to the apprentice, the tools/machinery and the task must be provided and worn in accordance with the associated risk assessment, industry guidance and operator's manual.

Apprentice competence in the use of a tractor is a prerequisite for using trailed or mounted equipment. The apprentice must hold the relevant certificate of competence in pesticides if handling chemicals without supervision of a qualified person. Apprentices may use pesticides to cover the unit provided they do so under the close supervision of a qualified person throughout the process. Trainers should be up to date with legislation, policies and Codes of Practice used in the taught content.

It is anticipated that the delivery of this unit will be through supervised practical training allowing the apprentice to consolidate operational skills within a real working environment at a golf facility. The apprentice must be provided with the opportunity to carry out all tasks within the unit on sufficient occasions to gain competency of skills and understanding. The quality of the finish must also be stressed throughout tasks. In addition, it is vital that the apprentice understands the importance of maintaining awareness of current legislation and Codes of Practice in relation to turf renovation and repair.

Apprentices are to be aware that all tasks should be undertaken at the correct time of year and in appropriate weather conditions and training should be carried out likewise.

Further Guidance

Topic 2.1. The apprentice will be required to identify a minimum of 15 weeds/mosses common to turf. The evidence from this topic must be included in their portfolio.

Suggested learning resources

Books

GTC Learning Materials Level 2 Published by: Greenkeepers Training Committee ISBN: 978-0-9573436-2-7	Various
Practical Greenkeeping Published by: The Royal & Ancient Golf Club of St Andrews 1997 ISBN: 978-0-907583-04-2	Arthur, J
Turf Management For Golf Courses Published by: John Wiley & Sons; 2nd Edition (2001) ISBN: 978-1575040-92-9	Beard, JB
Turf Culture 2nd Edition Published by: Cassell 1990 ISBN: 978-0304318-54-4	Hope, F
Care of The Golf Course 2nd Ed Published by: Sports Turf Research Institute (31 Dec. 1992) ISBN: 978-1873431-02-3	Hayes, P

Sports Turf: Science, Construction and Maintenance
Published by: Routledge (28 Oct. 1993)
ISBN: 978-0419149-50-7

Stewart, V.I.

The Care of the Golf Course
Published by: Sports Turf Research Institute
ISBN: 978-1873431-19-1

Perris, Jeffrey & Evans, Roger

Fertilisers for Fine Turf (2nd Ed)
Published by: STRI 1996
ISBN: 978-1873431-29-0

Lawson, D.M.

Rootzones, Sands and Top Dressing Materials for Sports Turf
Published by: STRI 2006
ISBN: 978-1873431-60-3

Dr. Baker, S

Practical Golf Course Maintenance: The Magic of Greenkeeping. 3rd Ed.
Published by: John Wiley & Sons; 3rd Edition (14 Dec. 2012)
ISBN: 978-1118143-74-2

Witteveen, G. & Bavier, M.

Management of Turf Grass Diseases
Published by: John Wiley & Sons; 3rd Edition (21 Dec. 2004)
ISBN: 978-0471474-11-1

Vargas, J. M. Jr.

Turfgrass Management (9th Edition)
Published by: Harlow: Pearson Education 2011
ISBN: 978-0137074-35-8

Turgeon, A.J.

Journals and magazines

- Greenkeeper International (British and International Golf Greenkeepers Association))
- The Groundsman (Institute of Groundsmanship)
- Pitchcare Magazine (Pitchcare)

Websites

- British and International Golf Greenkeepers Association <http://www.bigga.org.uk>
- Institute of Groundsmanship <http://www.iog.org>
- The United States Golf Association www.usga.org
- The Royal Horticultural Society www.rhs.org.uk
- British Crop Production Council www.bcpcc.org
- Department for Environment, Food and Rural Affairs www.defra.gov.uk
- UK Government Guidance on Plant Health Controls www.gov.uk/plant-health-controls
- Identification of Weeds, Pests and Moss www.theturfdiseasecentre.co.uk/Weeds.htm
- Bayer UK (Turf Weed, Disease and Pest Identification)
www.escience.bayercropscience.co.uk/bcsweb/es/bcs_uk_greenws.nsf/id/UK_PI_Overview?open
- Syngenta <http://www3.syngenta.com/country/uk/en/Pages/home.aspx>

Unit 007

Establish plants outdoors

UAN:	H/508/0105
Level:	2
GLH:	120
Assessment type	Synoptic knowledge and practical tests, trainee statement

What is this unit about?

The purpose of this unit is for apprentices to develop the knowledge and skills required to plant out plants and seeds on the golf course to promote establishment and healthy development. This includes preparing the ground, aftercare and basic plant and soil science. Apprentices will also be able to identify common grasses and plants found on the golf course and will understand their uses.

The golf course is a fluid environment in terms of the plants that grow within its boundaries. Greenkeepers may be required to build new areas of play or establish plants to change the playing characteristics of the course, add wildlife benefits or to add to the aesthetics of the course. Therefore the ability to prepare ground and establish plants is an important area for the Golf Greenkeeper.

Learning outcomes

In this unit, apprentices will be able to

1. Prepare ground for establishing plants
2. Establish plants in soil
3. Plant identification

Scope of content

This unit focuses on developing apprentice understanding of plant needs for the purpose of establishing seeds and plant material in the ground. The apprentice will learn how to prepare the ground using appropriate tools and equipment, prepare and handle the plant material and provide aftercare. An understanding of basic soil and plant science will ensure apprentices are aware of plant requirements for healthy establishment and growth. The unit also covers plant/grass uses and identification.

Throughout the unit, the emphasis should be on safe working. It is expected that the apprentices are guided towards safe working practices and minimising environmental impact.

The Greenkeeper's Code of Practice should be adhered to throughout the task.

Unit range

Seeds and/or plant material of the following:

- Grasses
- Trees
- Shrubs
- Wildflowers
- Herbaceous plants
- Bedding plants

The range of plants should include deciduous, evergreen, ground-cover plants and climbers, to ensure all year round interest.

Learning outcome:

1. Prepare ground for establishing plants

This outcome covers the skills and knowledge involved in analysing and preparing soils for planting as well as the recognition of hazards that may be on the site.

Topics

- Topic 1.1 Preparing for works
- Topic 1.2 Soil tests
- Topic 1.3 Preparing ground for turfing and planting
- Topic 1.4 Accidental damage management

Topic 1.1

Selection and use of equipment and materials required to prepare the ground efficiently, including ensuring they are correctly maintained according to instructions.

Hazards which could be encountered on sites (i.e. electric cables, water pipes) and how they can be managed.

Topic 1.2

Classification of soil by particle size.

Application of pH test and reporting findings.

Soil texture test for an area of ground to be prepared.

Topic 1.3

Preparation of the ground in a way that is appropriate for the plants being established, soil type and ground conditions to the agreed schedule.

Different methods that can be used to clear and prepare ground and should include the following considerations:

- suitable soil preparation for the plants and the soil conditions
- control of perennial weeds by cultural and chemical methods
- correct use of compost and fertiliser
- how to obtain the correct soil tilth, consolidation, pH and nutrient levels
- the effects of soil type, soil condition, climate, weather, ground conditions and site.

On completion the site must be left in a safe and tidy condition with debris disposed of correctly and all equipment maintained and stored appropriately.

Topic 1.4

The unwanted impacts, damage and pollution that can occur when preparing a site, how to avoid them and how to deal with them if they occur.

Work in a way that minimises environmental damage, unnecessary waste and unwanted impacts to the site.

How to identify and respond correctly to accidental damage and pollution.

Relevant legislation and Codes of Practice that affect this task.

Learning outcome:

2. Establish plants in soil

This outcome covers the handling and transportation of plant material so it arrives at the planting site in a healthy and undamaged condition, and the correct planting of the plants.

Topics

- Topic 2.1 Preparing to plant out plants and seeds
- Topic 2.2 Planting out plants and seeds
- Topic 2.3 Basic plant science

Topic 2.1

The reasons for planting trees and shrubs on a golf course.

Selection of plants and/or seeds as requested by manager or supervisor.

Transportation, preparation and handling of the plant material in a way that maintains its health and condition according to the prevailing conditions.

Selection and use of equipment efficiently and correctly for plant and seed type and conditions.

Topic 2.2

Planting out seeds and plants at each stage, to include:

- the correct time of year for sowing grass seed and laying turf
- correct positioning and depth of the plant material
- provision of nutrients and the different types available
- backfill materials and their uses
- methods of protecting plants from pests and golfers
- provision of aftercare to seeds or plants.

Maintenance of the site, materials and equipment during the task and the options available, to include:

- clean, maintain and store equipment safely and securely following use
- dispose of waste safely and correctly
- keep accurate records and plant labelling
- work to minimise damage and unnecessary waste
- deal with accidental damage or pollution.

Topic 2.3

The conditions required for effective germination of seeds.

The process of transpiration, respiration and photosynthesis in plants.

Learning outcome:

3. Plant identification

This outcome requires the apprentice be able to identify a range of plants for use in the golf course environment.

Topics

- Topic 3.1 Features and uses of grasses and plants
- Topic 3.2 Identify grasses
- Topic 3.3 Identify plants

Note: Common and botanical names are required during the identification assessments of both grasses and plants.

Topic 3.1

The uses and performance of the main turf grasses on golf courses.

Grass seed mixtures suitable for use on areas of the golf course.

The key features used in grass identification.

The uses of trees, shrubs, herbaceous plants and bedding plants on the golf course.

Topic 3.2

The main grasses used on golf courses in seed, vegetative mown and vegetative unmown form, to include:

- Perennial Ryegrass
- Bentgrass
- Fescue
- Smooth Stalked Meadow Grass
- Annual Meadow Grass (vegetative only).

Topic 3.3

Identification of plants by common name relevant to workplace, to include:

- trees
- shrubs
- wildflowers
- herbaceous plants
- bedding plants.

Guidance for delivery

There is scope within this unit to cross reference with activities in other units in the qualification, including: health and safety; safe, efficient and effective use of equipment and its maintenance; turf renovation and weed control and identification.

All equipment/machinery being used must comply with relevant requirements of the Provision and Use of Work Equipment Regulations (PUWER) 1998. Adequate Personal Protective Equipment (PPE) appropriate to the apprentice, the machinery and the task must be provided and worn in accordance with the associated risk assessment, industry guidance and operator's manual.

Trainers should be up to date with legislation, policies and Codes of Practice used in the taught content.

It is anticipated that the delivery of this unit will be through supervised practical training allowing the apprentice to consolidate operational skills within a real working environment at a golf facility. The apprentice must be provided with the opportunity to carry out all tasks within the unit on sufficient occasions to gain competency of skills and understanding. In addition, it is vital that the apprentice understands the importance of maintaining awareness of current legislation and Codes of Practice in relation to the tasks.

Further Guidance

Topic 3.2. The apprentice will be required to identify the five grasses in seed, vegetative mown and vegetative unmown form.

Topic 3.3. The apprentice will be required to identify a minimum of 30 plants relevant to their workplace e.g. trees, shrubs, wildflowers in the rough environment on the golf course and clubhouse.

The evidence from these topics must be included in their portfolio.

Suggested learning resources

Books

- GTC Learning Materials Level 2 Various
Published by: Greenkeepers Training Committee
ISBN: 978-0-9573436-2-7
- Turf Grasses RDC, Evans
Published by: BIGGA
- Turf Grass Physiology and Ecology Bell, Gregory E.
Published by: CABI Publishing (1 Mar. 2011)
ASIN: B00C483JSG
- Sports Turf and Amenity Grasses: A Manual for Use and Identification Aldous, David & Chivers, Ian
Published by: CSIRO Publishing (1 April 2002)
ISBN: 978-0-643066-66-3
- Grasses: A Guide to Their Structure, Identification, Uses and Distribution Hubbard, Charles Edward
Published by: Penguin; 3rd Rev Ed edition (25 Jun. 1992)
ISBN: 978-0-14013-22-7
- Grasses, Sedges, Rushes and Ferns of Britain and Northern Europe - Collins Pocket Guide Richard, Fitter
Published by: Collins; 1st edition (4 Feb. 1984)
ISBN: 978-0-002191364
- Collins Tree Guide Johnson, Owen
Published by: Collins (3 April 2006)
ISBN: 978-0-007207-71-8
- British Trees: A Photographic Guide to Every Common Species Sterry, Paul
Published by: Collins; First Edition (7 April 2008)
ISBN: 978-0-007236-85-5
- The RHS Encyclopaedia of Gardening (4th Edition) Brickell, C
Published by: Dorling Kindersley Publishers 2012
ISBN: 978-1-409383-94-9
- Principles of Horticulture. 6th Edition Adams, C.R. and Early, M.
Published by: Routledge 2011
ISBN: 978-0-080969-57-2
- A Dictionary of Plant Science 3rd Edition Allaby, M
Published by: OUP Oxford 2012
ISBN: 978-0-19-9600-57-1
- Essential Soil Science: A Clear and Concise Introduction to Soil Science Ashman, M. and Puri, G.
Published by: Wiley-Blackwell 2008
ISBN: 978-0-632048-85-4

Botany: An Introduction to Plant Biology (5th Edition)
Published by: Jones & Bartlett Publishers 2014
ISBN: 978-1-284068-85-6

Mauseth, J.D.

Applied Principles of Horticulture 2nd Edition
Published by: Butterworth Heinemann 2002
ISBN: 978-0-750629-54-6

Brown, L.V.

Principles of Horticulture Level 2
Published by: Routledge 2015
ISBN: 978-0-415-859-08-0

Adams, C.R, Early, M. Brook, J. & Bamford K.

Journals and magazines

- Horticulture Week
- The Plantsman

Websites

- The Arboricultural Association <http://www.trees.org.uk>
- Barenbrug- This site has access to the Turf Grass seed 2015 British Society of Plant Breeders Limited www.barenbrug.co.uk/downloads.asp?menu_ID=6
- The Royal Horticultural Society <https://www.rhs.org.uk>
- Science and Plants for Schools <http://www.saps.org.uk>
- On Course Field Guides published by the British International Golf Greenkeepers Association (only available from <http://www.bigga.org.uk/education/resources/field-guides>)

This resource contains:

- On Course Field Guide for the Major Diseases and Pest of Fine Turf Mann Ruth B.S.c M.S.c Ph.D, M.B.P.R.
- On Course Field Guide to the identification of golf course grasses Evans R.D.C B.S.c Taylor R.S. B.S.c
- On Course Field Guide to the identification of trees and shrubs on the golf course Taylor R.S. B.S.c Westwood James B.S.c
- On Course Field Guide to the identification of damage caused by mammals and birds McKillop Gordon, BSc, PHD, MBA
- On Course Field Guide to the legislation and recognition of protected habitats and species Taylor Bob BSC, MIEEM, MBPR.

Unit 008

Prepare golf course for play

UAN:	K/508/0106
Level:	2
GLH:	45
Assessment type	Synoptic knowledge and practical tests, trainee statement

What is this unit about?

The purpose of this unit is for apprentices to develop their knowledge of how to set out and prepare the golf course and its features ready for play to commence.

The ability to use the equipment required and the understanding of how to prepare the golf course for play are a vital part of the modern Golf Greenkeepers' work. Apprentices will be expected to be able to identify the correct markings to be used to enable players to use the golf course within the rules of the sport as well as prepare bunker surfaces that create suitable conditions for the game of golf.

Learning outcomes

In this unit, apprentices will be able to

1. Course preparation
2. Moving tee markers
3. Changing holes
4. Maintaining and renovating bunkers

Scope of content

This unit focuses on developing apprentice understanding of the Rules of Golf and how these are to be followed when preparing the course and its features for play. Apprentices will be able to mark out the boundaries of the course so that they are easily identified by golfers using standard signage. The unit also covers the moving of tee markers and changing holes in line with the Greenkeeper's Code of Practice. Finally, apprentices will develop their skills to be able to maintain bunkers to the required standard. For each of these activities the apprentice will also gain an understanding of why the activity is important to the maintenance of the golf course, and to players.

Throughout the unit, the emphasis should be on safe working. It is expected that the apprentices are guided towards safe working practices and minimising environmental impact. Relevant legislation, policies and Codes of Practice must be covered by apprentices throughout the activities in this unit.

Tools and equipment must be maintained and stored correctly and safely after use.

The Rules of Golf and the Greenkeeper's Code of Practice should be adhered to throughout the task.

Learning outcome:

1. Course preparation

This outcome covers the skills and knowledge required to mark out the golf course for play within the Rules of Golf and in addition it covers the use of equipment used to measure golf green speed.

Topics

- Topic 1.1 Golf course presentation
- Topic 1.2 Green speed

Topic 1.1

The Rules of Golf relevant to course presentation including the relevant coloured markings.

The purpose of local rules in relation to course preparation.

Selection, preparation and use of tools and equipment.

Identification and marking of the following areas so they are clear and appropriate for the event and the reasons for each activity listed:

- ground under repair (G.U.R.)
- lateral water and water penalty areas
- out of bounds
- dropping zones.

Presentation of the areas marked out meet the requirements of the sport.

Setting out equipment in line with the Rules of Golf.

Standards of playing surfaces.

Topic 1.2

Measure green speed, firmness and trueness.

The factors affecting green speed, firmness and trueness.

Learning outcome:

2. Moving tee markers

This outcome covers the skills and knowledge required to move tee markers within the rules and guidelines for the game of golf.

Topics

- Topic 2.1 Moving tee markers on a golf course

Topic 2.1

The reasons for moving tee markers and the timing and frequency of the task.

The different coloured markers used.

The requirement of plans and where to obtain them.

The influence of golf rules when moving tee markers.

The positioning of tee markers.

Placement of tee markers as follows:

- correctly according to the plan
- in accordance with the rules of the sport
- in accordance with the standard of the event
- according to the line of play.

Learning outcome:

3. Changing holes

This outcome covers the skills and knowledge required to change the position of golf holes so the positioning selected complies with the rules and guidelines for the game of golf as well as leaving the surface in a condition that is suitable for play.

Topics

- Topic 3.1 Change hole position on a golf course

Topic 3.1

The reasons for changing the hole position and the factors affecting timing and frequency.

The factors affecting choice of hole position.

The Rules of Golf affecting the placement of hole positions.

Selection, preparation and use of equipment correctly.

Changing the position of holes on golf courses by carrying out the following tasks:

- select appropriate position in accordance with the Rules of Golf and standard of the event
- cut hole cleanly and to correct depth
- remove cup liner and repair old hole
- clean out any debris from cup
- reset cup to correct depth and insert the flagstick ensuring the rules of the sport are adhered to.

Old and new sites are left to the desired finish and presentation.

Learning outcome:

4. Maintaining and renovating bunkers

This outcome covers the skills and knowledge required to prepare bunkers in line with the rules and guidelines for the game of golf.

Topics

- Topic 4.1 Maintain and renovate bunkers on a golf course

This learning outcome covers the maintenance of bunkers and emphasises the quality of finish and its importance to the game of golf. Apprentices will cover all of the following:

- raking
- edging
- cultivating
- replenishing.

Topic 4.1

The factors affecting timing and frequency of raking, edging, cultivating and replenishing.

The Rules of Golf related to bunkers.

The criteria for the selection of sand for bunkers.

Selection of appropriate tools and equipment to carry out the task and their uses.

Raking, edging, cultivating and replenishing of bunkers and removal of all debris appropriately.

Renovation of the bunkers edge to the required specification to ensure it is clearly defined.

Guidance for delivery

There is scope within this unit to cross reference with activities in other units in the qualification including health & safety and safe, efficient and effective use of equipment and its maintenance.

Throughout the unit, the emphasis should be on safe working and apprentices must demonstrate a knowledge of relevant legislation. Trainers should also be up to date with legislation, policies and Codes of Practice used in the taught content.

All equipment being used must comply with relevant requirements of the Provision and Use of Work Equipment Regulations (PUWER) 1998. Adequate Personal Protective Equipment (PPE) appropriate to the apprentice, the machinery and the task must be provided and worn in accordance with the associated risk assessment, industry guidance and operator's manual.

It is anticipated that the delivery of this unit will be through supervised practical training allowing the apprentice to consolidate operational skills within a real working environment at a golf facility. The apprentice must be provided with the opportunity to carry out all tasks within the unit on sufficient occasions to gain competency of skills and understanding. The quality of the finish must also be stressed throughout tasks. In addition, it is vital that the apprentice understands the importance of maintaining awareness of current legislation and Codes of Practice in relation to the tasks.

Apprentices are to be aware that all tasks should be undertaken at the correct time of year and in appropriate weather conditions and training should be carried out likewise.

Further Guidance

Topic 1.1. Should the apprentice not have access to a water penalty area at their place of work, the performance criteria can be covered at a college/provider or alternative workplace.

Topic 4.1. Should the apprentice not be able to access a bunker at their place of work the assessment may be carried out at another workplace or a provider. If a provider is used the bunker must be of a standard that would be found in the industry.

Suggested learning resources

Books

GTC Learning Materials Level 2 Published by: Greenkeepers Training Committee ISBN: 978-0-9573436-2-7	Various
Practical Greenkeeping Published by: The Royal & Ancient Golf Course of St Andrews 1997 ISBN: 978-0-9-07583-04-2	Arthur, J
Turf Management for Golf Courses Published by: John Wiley & Sons; 2nd Edition (1 Oct. 2001) ISBN: 978-1-575040-92-9	Beard, JB
Turf Culture 2nd Edition Published by: Cassell 1990 ISBN: 978-0-304318-54-4	Hope, F

Care of the Golf Course 2nd Ed Published by: Sports Turf Research Institute (31 Dec. 1992) ISBN: 978-1-873431-02-3	Hayes, P
Fundamentals of Turf Grass Management Published by: John Wiley & Sons; 4th Edition (22 July 2011) ISBN: 978-0470587-31-7	Chirstians, N.E.
Sports Turf and Amenity Grassland Management Published by: The Crowood Press Ltd (16 Dec. 2005) ISBN: 978-1861267-90-0	Brown, Stuart
Sports Turf: Science, Construction and Maintenance Published by: Routledge (28 Oct. 1993) ISBN: 978-0419149-50-7	Stewart, V.I.
The Care of the Golf Course Published by: Sports Turf Research Institute ISBN: 978-1-873431-19-1	Perris, Jeffrey & Evans, Roger
STRI Guidelines to Golf Green Construction in the United Kingdom Published by: STRI 2005 ISBN: 978-1-873431-59-7	Various
Fertilisers for Fine Turf (2nd Ed) Published by: STRI 1996 ISBN: 978-1-873431-29-0	Lawson, D.M.
Rootzones, Sands and Top Dressing Materials for Sports Turf Published by: STRI 2006 ISBN: 978-1-873431-60-3	Dr. Baker, S
Sports Turf and Amenity Grassland Management Published by: The Crowood Press Ltd 2005 ISBN: 978-1-861267-90-0	Brown, S
Turf Irrigation Manual Published by: Telsco Industries 1994 ISBN: 978-0-963509-60-4	Choate, Richard, B, & Watkins, James, A
Water Use Efficiency in Turf and Landscape Irrigation Published by: CSIRO 2013 ISBN: 978-0-643094-29-1	Connellan, G
Turfgrass and Landscape Irrigation Water Quality Published by: CRC Press 2015 ISBN: 978-1-420081-93-0	Carrow, R.N., Huck, Michael T, & Duncan, R.

Applied Principles of Horticulture 2nd Edition
Published by: Butterworth Heinemann 2002
ISBN: 978-0-750629-54-6

Brown, L.V.

Principles of Horticulture Level 2
Published by: Routledge 2015
ISBN: 978-0-415-859-08-0

Adams, C.R., Early, M., Brook, J. & Bamford, K.

Practical Golf Course Maintenance: The Magic of Greenkeeping. 3rd Ed. Witteveen, G. & Bavier, M.
Published by: John Wiley & Sons; 3rd Edition (14 Dec. 2012)
ISBN: ISBN: 978-1-11814-37-4

Turfgrass Management (9th Edition) Turgeon, A.J.
Published by: Harlow: Pearson Education 2011
ISBN: 978-0-137074-35-8

Journals

- Journal of Turfgrass and Sports Surface Science (Sport Turf Research Institute)
- Greenkeeper International (British and International Golf Greenkeepers Association))
- The Groundsman (Institute of Groundsmanship)
- Pitchcare Magazine (Pitchcare)

Websites

- Royal and Ancient Golf Club www.randa.org
- British and International Golf Greenkeepers Association <http://www.bigga.org.uk>
- Institute of Groundsmanship www.iog.org
- Boughton - Useful Root-Zone Calculator www.boughton.co.uk/useful-information/topsoil-calculator
- The Handbook of Technical Irrigation Information http://www.hunterindustries.com/sites/default/files/tech_handbook_of_technical_irrigation_information.pdf
- The United States Golf Association www.usga.org

Appendix 1 Greenkeeper's Code of Practice

General guidelines

Operating in line with the Greenkeeper's Code of Practice is important to maintain the professional image of greenkeeping and you should know and understand the following Code of Practice.

It is important that all Greenkeepers, from the beginning of their career, are aware of golf etiquette and how it affects their working practices.

The following are guidelines to good etiquette:

1. Be polite and considerate at all times to colleagues, golfers and the general public.
2. Ensure your work clothes are appropriate, safe, tidy and presentable.
3. Always be on the look-out for golfers and not just those playing the hole you are working on.
4. When players approach, acknowledge them and, if it is reasonable do so without causing undue delay, complete the task.
5. Try to schedule work to limit disruption to play.
6. Do not upset a player's concentration as they are about to play.
7. Work against the direction of play.
8. When cutting a teeing ground, position the markers back on the tee as soon as the task is completed.
9. When cutting fairways try to position yourself and the machine safely to allow golfers to play through. If it is not possible, stop your machine until all golfers have played. Be aware of any golf balls in the line of cut.
10. When cutting a green, replace the flagstick as soon as possible.
11. Do not change the hole position when golfers are playing the hole or when golf balls are on the green. Never change a hole during a stroke play event except when directed by the committee to do so, or when golf balls are on the green.
12. Do not play loud music from tractor cabs, etc.
13. Do not drive in a manner which may be dangerous to yourself and others, or likely to damage the turf.
14. On competition days, work on the course should be planned to ensure that there is no interference with play.
15. Report unexpected findings back to the course manager/Head Greenkeeper.

Appendix 2 Greenkeeper's Code of Ethics

General guidelines

Correct ethics are an important part of the professional aspect of greenkeeping. You should know and understand the following Code of Ethics.

This Code is established to promote and maintain the highest professional standards of service and conduct among the members of the profession.

Through adherence to this Code, Greenkeepers will gain for themselves recognition of individual integrity, responsibility and professionalism whilst enhancing generally the respect and goodwill for their profession.

Members of the greenkeeping profession are expected to:

1. Set standards of personal conduct which will enhance the stature of the profession of golf course management.
2. At all times, carry out their duties and responsibilities in such a manner as to reflect favourably on the profession.
3. Seek to use every opportunity to broaden their professional expertise for both personal development and the good of the profession.
4. Follow sound business and turf management principles in exercising the responsibilities of their post.
5. Observe the highest standards of personal integrity in relationship with fellow Greenkeepers as well as other associated individuals and at all times, as far as reasonable, assist fellow Greenkeepers as required.
6. Pursue job advancement only where vacancies arise and not at the expense of a fellow Greenkeeper and abstain from any action, comment or communication not founded on truth which is likely to harm the professional reputation or practice of another Greenkeeper.
7. Give endorsements of any kind only upon satisfactory personal experiences of the item identified.
8. Refrain from encouraging or accepting considerations of any value which might be deemed an inducement to find favour for a particular party or influence decisions in relations to that party and at all times avoid any exploitation of my industry or profession.
9. Actively seek to improve the public understanding and recognition of the profession of golf course management.
10. Report to the Greenkeepers Training Committee, evidence likely to be in violation of this Code of Ethics.
11. Adopt sustainable practices on the golf course.

Appendix 3 Behaviours of a Golf Greenkeeper

Golf club employers require their apprentices to have a set of personal skills and behaviours that will ensure success in their current and future roles as an individual and in meeting the company's aims and objectives and to provide a high quality level of customer service.

The behaviours required by golf club employees will be to have:

1. A strong work ethic including pride in work, attention to detail, integrity and time management.
2. A flexible positive attitude to work.
3. An ability to work as a lone worker and as a member of a team.
4. A willingness to learn and contribute to their own Continuing Professional Development (CPD).
5. A safety mind-set for self, colleagues and golfers.
6. Clear and effective communication skills and can use a variety of communication methods to give/receive information accurately and in a timely and positive manner.
7. An ability to problem solve and make effective decisions.

It is important to note the behaviours will be regularly monitored and recorded by your Employer, Supervisor and Training Provider. Using this evidence, apprentices will write a reflective summary of their training, focussing on their personal development and behaviours. This Trainee Statement will then be submitted for assessment prior to the practical end-point assessments.

Appendix 4 Portfolio of evidence guidance

Keeping a Portfolio of Evidence

As part of the learning journey for the Golf Greenkeeping apprenticeship, it is required that a portfolio of evidence is collected. This will record tasks undertaken and successfully completed to the standards indicated in the Handbook over the period of the apprenticeship. The portfolio can take the form of the GTC Training Manual or any other suitable format. This evidence will be used to complete the Trainee Statement in the final synoptic assessment, which looks at the seven behaviours listed in the apprenticeship standard.

Examples of evidence

It is important that apprentices can demonstrate, through the presentation of evidence, that they can meet the requirements of each unit within the Handbook. A crucial part of meeting these requirements is the way in which they approach, perform and complete each task plus the seven core behaviours as these are what makes an effective employee. Evidence to support these behaviours can therefore be divided into two main categories - direct and indirect:

Direct evidence can include a variety of the following:

- The apprentice's performance being observed by their Employer, Training Provider and qualified work colleagues.
- Projects or work-based assignments.
- Regular training diary entries, personal reports or statements.
- Minutes of meetings and appraisals, progress reports, action plans linked to specific work tasks.
- Internal and external correspondences.
- Recognition of prior learning (RPL) which directly relate to tasks (must be current).
- Product evidence such as; photographic, job cards, photo story etc.
- The apprentice's responses to written or oral questions.
- Video or audio recorded professional discussions.

Indirect evidence can include:

- Witness testimonies from people within or outside the apprentice's place of work.
- Continuing Professional Development (CPD) and the attendance of courses and related activities.
- Membership of related committees or outside organisations that demonstrates any of the behaviours.
- Certificates of achievement / attendance from previous non-academic courses.
- Reports by supervisors or managers.

It is expected that apprentices will provide a variety of evidence to support their demonstration of competence. These lists are not exhaustive and apprentices may provide other forms of evidence depending on each task/behaviour.

Plant Identification

Apprentices must include in their portfolio of evidence a record of the plants learnt and identified for Unit 006 - Renovate and repair sports turf surfaces and Unit 007 - Establish plants outdoors. This should consist of 5 grasses in mown and unmown form, 4 grass seeds, a minimum of 30 plants relevant to their workplace e.g. trees, shrubs, wildflowers in the rough environment on the golf course and clubhouse and a minimum of 15 weeds/mosses common to turf. This evidence may be used by the Independent End-point Assessor during the practical end-point assessment.

Appendix 5 Sources of general information

The following documents contain essential information for centres delivering City & Guilds qualifications. They should be referred to in conjunction with this handbook. To download the documents and to find other useful documents, go to the **Centres and Training Providers homepage** on www.cityandguilds.com.

City & Guilds Centre Manual

This document provides guidance for organisations wishing to become City & Guilds approved centres, as well as information for approved centres delivering City & Guilds qualifications. It covers the centre and qualification approval process as well as providing guidance on delivery, assessment and quality assurance for approved centres.

It also details the City & Guilds requirements for ongoing centre and qualification approval, and provides examples of best practice for centres. Specifically, the document includes sections on:

- the centre and qualification approval process
- assessment, internal quality assurance and examination roles at the centre
- registration and certification of apprentices
- non-compliance and malpractice
- complaints and appeals
- equal opportunities
- data protection
- management systems
- maintaining records
- internal quality assurance
- external quality assurance.

Our Quality Assurance Requirements

This document explains the requirements for the delivery, assessment and awarding of our qualifications. All centres working with City & Guilds must adopt and implement these requirements across all of their qualification provision. Specifically, this document:

- specifies the quality assurance and control requirements that apply to all centres
- sets out the basis for securing high standards, for all our qualifications and/or assessments
- details the impact on centres of non-compliance

Our Quality Assurance Requirements document encompasses the relevant regulatory requirements of the following documents, which apply to all UK centres working with City & Guilds:

- Ofqual's General Conditions of Recognition

The **centre homepage** section of the City & Guilds website also contains useful information on

- **Walled Garden:** how to register and certificate apprentices on line
- **Events:** dates and information on the latest Centre events
- **Online assessment:** how to register for e-assessments.

Useful contacts

UK apprentices

General qualification information

E:
apprenticesupport@cityandguilds.com

International apprentices

General qualification information

E: **intcg@cityandguilds.com**

Centres

Exam entries, Certificates, Registrations/enrolment, Invoices, Missing or late exam materials, Nominal roll reports, Results

E: **centresupport@cityandguilds.com**

Single subject qualifications

Exam entries, Results, Certification, Missing or late exam materials, Incorrect exam papers, Forms request (BB, results entry), Exam date and time change

E: **singlesubjects@cityandguilds.com**

International awards

Results, Entries, Enrolments, Invoices, Missing or late exam materials, Nominal roll reports

E: **intops@cityandguilds.com**

Walled Garden

Re-issue of password or username, Technical problems, Entries, Results, e-assessment, Navigation, User/menu option, Problems

E: **walledgarden@cityandguilds.com**

Employer

Employer solutions, Mapping, Accreditation, Development Skills, Consultancy

T: **+44 (0)121 503 8993**
E: **business@cityandguilds.com**

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City & Guilds

1 Giltspur Street

London EC1A 9DD

www.cityandguilds.com