Groundworker Apprenticeship, Level 2: End-point Assessment Plan

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End-point Assessment Plan

Introduction & Overview

This document sets out the requirements for end-point assessment (EPA) for the Groundworker apprenticeship standard. It is written for end-point assessment organisations who need to know how EPA for this apprenticeship must operate. It will also be of interest to Groundworker apprentices, their employers and training providers.

Full time apprentices will typically spend 18 months on-programme working towards the apprenticeship standard. All apprentices must complete the required amount of off-the-job training specified by the apprenticeship funding rules.

The EPA should only start once the employer is satisfied that the apprentice is consistently working at or above the level set out in the standard, that the pre-requisite gateway requirements for EPA have been met and that they can be evidenced to an EPA organisation. As a gateway requirement, apprentices must complete a portfolio of work evidencing their knowledge, skills and behaviours in support of the Professional Discussion prior to taking their EPA. Groundworker Apprentices must complete training towards English and mathematics qualifications in line with the apprenticeship funding rules.

The EPA must be completed over a maximum total assessment time of 24 hours (3 x 8 hour days), within a 3-month period, after the apprentice has met the EPA gateway requirements.

EPA must be conducted by an organisation approved to offer services against this standard, as selected by the employer, from the apprenticeship provider and assessment register (APAR).

The EPA consists of 3 distinct assessment methods

- Knowledge Test
- Skills Test
- Professional Discussion (supported by portfolio)

Performance in the EPA will determine the apprenticeship grade of fail, pass or distinction.

Summary of Assessment

The end-point assessment (EPA) will assess how an apprentice can apply their skills, knowledge and behaviours acquired in their apprenticeship, through the following three assessments carried out after the gateway point of the apprenticeship:

1. Knowledge test –this test will consist of multiple-choice questions on a computer-based platform or paper-based.
2. Skills test – this test will consist of practical activities to assess the apprentice's knowledge, skills and behaviours
3. Professional Discussion – assessed by an Independent Assessor, this discussion will consist of questions that clarify and probe the apprentice's knowledge, skills and behaviours based on the portfolio of evidence developed by the apprentice.

The EPA can only be taken after the conditions of the Assessment Gateway have been successfully achieved.

On-programme **(typically 18 months)**	**End-point Assessment Gateway**	**End-point Assessment** **(maximum 3 x 8 hour days)**
Training to develop the occupation standard's knowledge, skills and behaviours Development of portfolio of completed work Complete training towards English and mathematics qualifications in line with the apprenticeship funding rules	Achieved English and mathematics qualification in line with the apprenticeship funding rules Completed portfolio submitted for use in professional discussion Employer satisfied apprentice is consistently working at or above the level of the standard	Knowledge Test (multiple choice paper) Skills Test Professional Discussion Graded fail, pass or distinction

Diagram 1. Typical Groundworker Apprenticeship Summary

End-point Assessment Overview			
Assessment Method	**Area Assessed**	**Assessed by**	**Grading**
Knowledge test (multiple-choice questions)	Knowledge	EPAO	Distinction/ Pass / Fail
Skills test	Knowledge/Skills / Behaviours	Independent Assessor	Pass / Fail
Professional discussion (synoptic test)	Knowledge/ Skills/ Behaviours	Independent Assessor	Distinction/ Pass / Fail
***Please see Grading section for more specific details including how the overall apprenticeship grade is calculated.**			

End-point Assessment Gateway

The EPA should only start once the employer is satisfied that the apprentice is consistently working at or above the level set out in the standard, the pre-requisite gateway requirements for EPA have been met and that they can be evidenced to an EPA organisation. Employers may wish to take advice from their apprentice's training provider(s).

Gateway requirements:

- Have achieved English and mathematics qualification in line with the apprenticeship funding rules..
- Completed portfolio of work and submitted to EPAO to support professional discussion.

The portfolio must:

- document off-the-job training that the apprentice has completed to demonstrate competence in the knowledge, skills and behaviours aligned to the Professional Discussion(See Annex A);
- contain evidence demonstrating competence against the knowledge, skills and behaviours (KSBs) assigned to the professional discussion;
- Include individual pieces of evidence to demonstrate competence against one or more KSBs;
- Evidence sources may include evidence of work undertaken which may be supported by: client feedback, witness testimonies, employer/trainer feedback that focuses on direct observation of evidence, training records, appraisal records, training course completion. This list is not definitive, other evidence sources are permissible however reflective accounts and self-evaluations are not allowed.

End-point Assessment Methods, Timescales and Locations

The EPA consists of the following three assessments:

- knowledge test
- skills test
- professional discussion

The end-point assessment must be completed over 3 x 8 hour day (24 hours in total) within a maximum period of 3 months, after the apprentice has met the EPA gateway requirements. It is expected that the knowledge test and professional discussion will take place at the same venue as the skills test to maximise affordability.

Method 1: Knowledge test

- Apprentices must complete a knowledge test during the EPA period.
- The knowledge test must assess apprentices against the standard's knowledge statements as shown in annex A.
- The knowledge test must consist of 50 multiple-choice knowledge-based questions
- Each question must present the apprentice with 4 options, from which the apprentice must select one correct option.
- Each question answered correctly must be assigned 1 mark, any incorrect or missing answers must be assigned 0 marks.
- Apprentices must have a maximum of 90 minutes to complete the knowledge test.
- Appropriate support should be made available for those apprentices with additional needs. Any adjustments made should be in-line with the EPAO Reasonable Adjustments policy and the adjustments must maintain the validity, reliability and integrity of the knowledge test.
- The knowledge test must be closed book i.e. the apprentice can't refer to reference books or materials.
- Knowledge tests can be either electronic or a paper-based.
- Apprentices must take the knowledge test in the presence of an EPAO administrator/invigilator.
- The maximum administrator/invigilator to apprentice ratio must be 1 to 15 if face-to-face; or 1 to 5 if remote. EPAOs must ensure appropriate measures are in place to prevent misrepresentation, for example, screen share and 360-degree camera function with assessors when the test is undertaken remotely.
- EPAOs must ensure that the knowledge test is conducted in a suitable controlled environment i.e. quiet room free from distraction and influence, with the necessary equipment (e.g. computer).
- Knowledge tests must be marked by EPAO independent assessors or markers following a marking guide produced by the EPAO; electronic marking is permissible.
- Independent assessors must award a grade using the following grading boundaries.

Grading boundaries	Fail	Pass	Distinction
Marks	0-29	30-41	42-50

- EPAOs may develop the bank of questions in consultation with representative employers. Where they do this, measures must be put in place to maintain the security and confidentiality of the assessment materials.
- EPAOs must ensure the knowledge test is available for apprentices within their 3 month EPA time period.
- EPAOs must develop and maintain a knowledge test question bank of sufficient size to prevent predictability and review them regularly (and at least once a year) to ensure they, and the specifications they contain, are fit for purpose. EPAOs must ensure that apprentices have a different set of questions in the case of re-sits/re-takes.

Method 2: Skills Test

- Apprentices must be observed by an independent assessor completing three tasks providing the opportunity to assess all KSBs listed against the skills test as per Annex A.
- These tasks are concreting, slabbing and drainage/installing ironworks. They may be completed in any order and concurrently.
- For all tasks the apprentice will be responsible for:
    - interpreting available information and the skills test brief;
    - selecting materials, tools and equipment;
    - safe use of resources, tools and equipment;
    - snagging/correcting any faults;
    - clearing up.
- Minimum observation specifications are shown below. Observation specifications must be determined and standardised by the EPAO using the examples below as a minimum specification.

Minimum Observation Specifications

1) Laying Paving using Slabs

- Lay a footpath of size 1.8m x 900mm
- Use 450mm x 450mm slabs
- Fall of 20mm

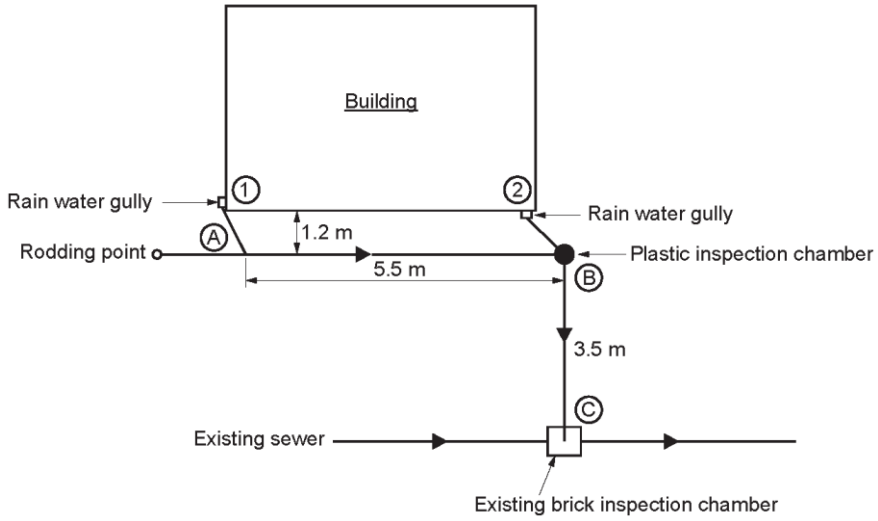
- Tolerances to be applied : +/- 30mm in length, +/- 15mm in width, level +/- 40mm in the length of the path, fall +/- 15mm, no excessive movement of slabs

2) Construct a Concrete Path

- Lay a path of size 2.0m x 900mm
- Calculate volume of concrete required assuming 2200kg per m^3
- Use formwork as appropriate
- Concrete 1:2:4 mix, 100mm thick
- Brush finish with a trowelled edge

3) Lay domestic drainage

- Set out, install and test a drainage system



Specification	
Plastic or clay drainage to be used	
Gradient of new drain to be 1-40	
100 mm diameter drainage pipes	
Point	Invert level
A	10.000 m
B	10.088 m
C	10.226 m

- EPAOs must develop a bank of observation specifications of sufficient size to prevent predictability, each including questions relating to underpinning knowledge, to ensure sufficient variation; and review them regularly (and at least once a year) to ensure they, and the specifications they contain, are fit for purpose.

- Due to the highly varied nature of the role (i.e site conditions, project life, environmental factors), EPAOs must ensure that the skills test be carried out in a simulated environment to ensure the test can be carried out within timescale, consistently and cost-effectively.

- The EPAO must choose a suitable offsite venue that reflects a realistic work environment, situation and conditions ensuring that it can also facilitate EPA.
- After the task completion the independent assessor must ask 6 set open questions to assess related underpinning knowledge. They may ask follow up questions where clarification is required. Questioning must be completed within the total time allowed for the observation.
- KSBs observed and answers to questions must be documented by the independent assessor.
- Apprentices must be provided with both written and verbal instructions on the tasks they must complete including timescales.
- Observations must be carried out over an assessment time period of 3 x 6 hour days +/- 10%. This allows sufficient time for the Knowledge test and Professional Discussion to be scheduled during the 3-day period, which can include consecutive or non-consecutive days.
- 30 minutes for lunch breaks should be allowed each day. There may also be breaks during the observation to allow the apprentice to move from one location to another and for comfort breaks.
- Independent assessors may observe up to a maximum of 3 apprentices at any one time, to allow for cost effective use of resources while maintaining quality and rigour.
- EPAO's must put in place measures to ensure that apprentices do not communicate with each other during these breaks or at any time during the skills test.
- Due to the physical nature of the tasks requiring two persons to lift certain materials, a person not being assessed should be made available by the employer. This person must not direct any activity and must take instruction from the apprentice.

Method 3: Professional Discussion

- This will consist of fifteen questions posed by the Independent Assessor that confirm knowledge, skills and behaviours as shown in appendix A. Follow up questions are allowed where clarity is required.
- The assessor will have 10 working days to review the portfolio prior to the professional discussion so that they can ask questions that refer to evidence in the portfolio of completed work developed during the apprenticeship in real work environments (e.g. photographs, witness statements and written description of task) and in line with Appendix A.
- The portfolio as a minimum must include evidence of projects that have required the apprentice to demonstrate the full range of knowledge, skills and behaviours listed in appendix A relevant to the professional discussion. This should include photographic evidence, witness testimonies and a written report on each project undertaken. The employer will authenticate the portfolio to ensure it represents only the work of the apprentice themselves.

- There will be a bank of questions for the oral questioning which will allow the Independent Assessor to tailor the questioning to individual apprentices portfolio. Independent Assessor may also develop their own questions pertinent to the portfolio.
- The oral questioning will be completed in 75 minutes (+10% at the discretion of the assessor). The room must be in a quiet location and free from distraction.
- The apprentice may refer to their on-programme portfolio during the discussion.

The way in which these assessments will cover the content of the apprenticeship standard is outlined in appendix A.

Apprenticeship Grading

The apprenticeship will be graded distinction, pass or fail. The final grade will be determined by collective performance in the three assessment elements in the end-point assessment. The skills test is graded as pass or fail only.

Overall Distinction: Distinction in the knowledge test and professional discussion and pass in the skills test
Overall Pass: At least Pass in all methods
Overall Fail: Fail in 1 or more methods

Apprentices must achieve a minimum of a Pass in all of the above assessments to achieve the Apprenticeship.

Table 1 below outlines the scoring criteria that will be applied for each assessment method.

In order to achieve the End-Point Assessment and complete the apprenticeship, all pass criteria must be evidenced. Distinction criteria build on the knowledge, skills and behaviour demonstrated to reach the pass criteria.

Table 1a Skills Test

End-Point Assessment Element	Fail	Pass
Skills Test	An apprentice that fails does not provide sufficient evidence to meet the knowledge, skills and behavioural requirements of the apprenticeship listed in the pass criteria.	To achieve a pass, the apprentice must be able to: • Work safely, following health and safety regulations and site policies and procedures. (K10, S1) • Interpret drawings and written instructions accurately, follow verbal instructions and select the correct resources for the task (S4, S3, S5, S9) • Move, handle and store resources safely and correctly in accordance with legislation and site safety procedures. (S6)

		• Use and maintain tools and equipment in-line the specification and manufacturer's instructions (S7, S9) • Completes the tasks as independently as far as the role allows, producing outcomes to the required. (B7) • Gauge and mix mortars according to drawings and specification. (S8) • Install drainage equipment in accordance with drawings and specifications. (S11) • Transport and place, then compact and finish concrete to slabs/bases to specification and drawings. (S13) • Set out and lay flags, paviours and edging according to specification and drawings. (S14) • Install ironworks in accordance with specification and drawings. (S15) • Complete the task within the time allocated without direction from others (B5, B8) • Locate and excavate to expose buried utility services according to current regulation (e.g HSG47) (S16) • Solve problems effectively (B6)

Table 1b Knowledge Test and Professional Discussion

End-Point Assessment Element	Fail	Pass Criteria	Distinction Criteria
Knowledge Test	Score 0-29	Score 30-41	Score 42-50
Professional Discussion	An apprentice that fails does not provide sufficient evidence to meet the knowledge, skills and behavioural requirements of the apprenticeship listed in the pass criteria.	To achieve a Pass, the apprentice must : • Provide examples of where they have directed and guided the movement of vehicles, plant or machinery according to site safety rules (S19) • Correctly describe the techniques to handle and move loads (K6) • Correctly describe why, when and how health and	To achieve a Distinction, in addition to the pass criteria the apprentice must be able to (all must be achieved): • Can explain the consequences of not following site safety rules and procedures when moving and handling loads and guiding the movement of vehicles. (S19, K6, K7) • Demonstrate an evaluation of actions

		safety control equipment should be used (K7) • Demonstrate and describe how they would complete the work in accordance with the programme of work and work instructions (S2) • Correctly describe how to install, maintain and remove temporary protection and safety arrangements for the work area (S10) • List the procedural steps to measure, mark, cut and install geo-membranes (S12) • Provide examples of and correctly describe the procedure to provide and remove temporary works including shallow excavation support (S17) • Provide examples of and outline how to form and reinstate excavations and surfaces to sub-grades, sub-bases and road bases (S18) • Demonstrates when they have used a range of communication methods to effectively communicate with customers and colleagues and explain the importance of positive body language and presentation (B1) • Describe how to select the correct procedure and equipment to respond to unexpected situations (B9) • Challenges unsafe working practices (B10) • Demonstrate how they develop respectful and	taken to complete work in accordance with the work programme and explain the contingency and problems solving steps used. (S2, B9) • Can explain the consequences of not utilising temporary protection or making safety arrangements including shallow excavation support (S10, S17) • Provide alternative suggestions for how to achieve the end results given different job parameters such as time and cost for the customer and organisation (S12, S18) • Can provide examples of where they have exceeded a) customer and b) colleague expectations and the positive outcome their actions created. (B1, B2, B3, B4) • Can provide examples of where they have taken the lead in challenging unsafe working practices and how they did it. (B10)

		positive relationships with customers and colleagues and work effectively as part of a team (B2, B3, B4)	

Re-sit and Re-take information

Apprentices who fail one or more EPA method will be offered the opportunity to take a re-sit or a retake. Re-sits or re-takes must not be offered to apprentices wishing to move from pass to distinction. A re-sit does not require further learning, whereas a re-take does.

The apprentice's employer will need to agree that a re-sit or re-take is an appropriate course of action. Apprentices should have a supportive action plan to prepare for the re-sit or re-take.

An individual EPA method re-sit or re-take must be taken during the maximum EPA period i.e. 3 months/within 1 month of the notification of a fail.

The maximum grade awarded to a re-sit or re-take will be pass, unless the EPAO identifies exceptional circumstances accounting for the original fail.

EPAOs must ensure that apprentices complete a different knowledge test when taking a re-sit or re-take.

For the knowledge test, apprentices will need to retake the full set of questions again and different questions must be used.

For the skills test, EPAO's must ensure that apprentices complete a different set of all three tasks when taking a re-sit or re-take.

If an apprentice fails the professional discussion, they can retake/resit it.

End-point Assessment Organisations

Employers must choose an independent EPAO approved to deliver the EPA for this apprenticeship from the apprenticeship provider and assessment register (APAR).

Requirements for Independent Assessors, Invigilators and Markers

EPAOs must appoint:

- administrators/invigilators and markers to administer/invigilate and mark the knowledge test
- independent assessors to grade the knowledge test, skills test and professional discussion.
- quality assurance staff to undertake moderation of EPA

Independent Assessors should be qualified and experienced construction craftsperson and have proven experience in the field of construction craft training and educational assessment. The minimum mandatory requirements for approval as a Groundworker Independent Assessor are to -

Be independent of the apprentice, their employer and training provider(s) i.e. there must be no conflict of interest
Be occupationally competent with a minimum of 5 years' relevant industrial experience, with a minimum of 2 years in the last 5 years working in the Groundwork Industry or have taken relevant and current CPD in Groundwork in the last 5 years
Hold or working towards (supported and counter-signed by qualified mentor) Level 3 Certificate in Assessing Vocational Achievement (or equivalent qualification)
Be qualified in a construction craft vocational qualification at L2 or above eg bricklaying, construction operations or equivalent
Undertake a minimum of 1-days' EPAO standardisation training per year

EPAO's must appoint administrators/invigilators and markers to administer/invigilate and mark the knowledge test. They must have no direct connection with the apprentice, their employer or training provider i.e. there must be no conflict of interest. There are no specific qualification or experience requirements for administrators/invigilators/markers. They must be trained in the task(s) by their EPAO and operate according to their guidance.

Quality assurance staff must hold or be working towards quality assurance qualifications. They must be independent of the apprentice, their employer and training provider i.e. there must be no conflict of interest.

Quality Assurance – internal

Internal quality assurance refers to the requirements that EPAO must have in place to ensure consistent (reliable) and accurate (valid) assessment decisions. EPAOs for this EPA must undertake the following:

- appoint independent assessors that meet the requirements as detailed in this plan – see independent assessor requirements above
- provide training for independent assessors in terms of good assessment practice, operating the assessment tools and grading
- have quality assurance systems and procedures that support fair, reliable and consistent assessment across organisation and over time
- operate regular standardisation events that enable assessors to attend a minimum of 1 event per year

- operate moderation of assessment activity and decisions, through examination of documentation and observation of activity, with a minimum of 15% of each independent assessors' assessments moderated

Assessment tools and materials

EPAOs must produce assessment tools and supporting materials for the EPA, as follows:

- Knowledge test question bank
- Sample questions for professional discussion
- Bank of practical specifications for the skills test
- Documentation for recording assessment evidence and decisions
- Guidance for independent assessors on conducting the EPA
- Guidance for apprentices, their employers and training providers on the EPA

Quality Assurance – external

External quality assurance for this apprenticeship standard will be undertaken by the Construction Industry Training Board (CITB).

Implementation

Affordability

The following factors should ensure the EPA is affordable:

- Employers premises should be used for EPA venues where possible
- Remote assessment is permissible, reducing travel costs
- All assessment methods can be completed in the same week, reducing travelling costs for assessors.
- The professional discussion is based on real work completed for the apprentice's employer (evidenced by portfolio), adding value to the employer.

Volumes

It is anticipated that there will be 500 starts per year on this apprenticeship and 2500 per year once established.

Annex A: Knowledge, Skills and Behaviours to be assessed by each method.

Ref. No.	Knowledge	Knowledge Test	Skills Test	Professional Discussion
K1	the principles of health, safety, welfare and environmentally responsible work practices and how they must be applied in relation to the work, self and to others including understanding the principles of risk assessments	**x**		
K2	Basic awareness of environmental and health hazards e.g. Japanese knotweed, asbestos. How to identify contaminated ground conditions and the procedures for working safely on it.	**x**		
K3	Basic principles of Building Information Modelling(BIM), drawings, method statements, manufacturers' information, work schedules and specifications	**x**		
K4	technology including key factors and systems of work appropriate to different work environments and industry sectors	**x**		
K5	the differences between modern and traditional construction methods and the physical and environmental factors when undertaking construction work and their potential impacts	**x**		
K6	the techniques to handle and move loads manually and with mechanical aids including guiding the movement of articulated vehicles, plant and machinery using hand signals, hand			**x**

	signalling equipment and verbal/electronic communication equipment and storing resources safely and securely			
K7	why, when and how health and safety control equipment should be used when undertaking groundworks			**x**
K8	the principles and methods of working within confined space work	**x**		
K9	erecting and dismantling access/working platforms	**x**		
K10	establishing work area protection		**x**	
K11	locating and excavating to expose buried utility services	**x**		
K12	providing temporary works including excavation support	**x**		
K13	the basic principles of internal/external drainage and ducting systems	**x**		
K14	measuring, marking, cutting and installing geo membranes to stabilise soil	**x**		
K15	gauging, mixing, placing, compacting and finishing mortars and concrete by hand and by mixer	**x**		
K16	reinstating excavations and ground surface finishes including installing street ironworks	**x**		

Ref No.	Skill	Knowledge Test	Skills Test	Professional Discussion
S1	work safely and securely in compliance with given information, organisational policies and procedures, and current health, safety and welfare legislation including following the procedures for working in contaminated ground.		**x**	
S2	conform with productive working practices and completing the work in accordance with the programme of work			**x**

S3	interpret and follow verbal and written work instructions from supervisors and site managers		**x**	
S4	access, interpret and use drawings and specifications		**x**	
S5	select the required resources including tools and fixtures		**x**	
S6	move, handle and store resources complying with relevant legislation & guidance		**x**	
S7	use and maintain power tools and equipment (including;. compactor plates, boning rods, portable power tools, levels, straight edges, lines, pins and laser equipment)		**x**	
S8	gauge and mix mortars and concrete by hand and by mixer		**x**	
S9	select and use basic setting out equipment including tape measures, levels, straight edges, lines and pins, boning rods and laser equipment under guidance of the supervisor		**x**	
S10	install, maintain and remove temporary protection and safety arrangements for the work area relating to barriers and temporary structures, including protection, safety notices and safety lighting			**x**
S11	install and test basic drainage and ducting		**x**	
S12	measure, mark, cut and install geo-membranes to stabilise soil for re-instatement and excavations			**x**
S13	transport and place, then compact and finish concrete to slabs/bases, footing oversites, paths, form slab edgings including positioning reinforcement and kerbs		**x**	
S14	set out and lay flags, paviours and edging to paths, driveways and other areas		**x**	

S15	install ironworks relating to access covers and frames, and gully grates and frames including preparatory brickwork		**x**	
S16	locate and excavate to expose buried utility services using electronic location instruments.		**x**	
S17	provide and remove temporary works including shallow excavation support (up to 1.2 metres)			**x**
S18	form and reinstate excavations and surfaces to sub-grades, sub-bases and road bases.			**x**
S19	prepare to, then direct and guide the movement of vehicles, plant or machinery	**x** (types of vehicles, plant & machinery only)		**x**

Ref No.	Behaviour	Knowledge Test	Skills Test	Professional Discussion
B1	Effective communication			**x**
B2	Customer service			**x**
B3	Respect			**x**
B4	Team work			**x**
B5	Independent working		**x**	
B6	Logical thinking		**x**	
B7	Working effectively		**x**	
B8	Time management		**x**	
B9	Adaptability			**x**
B10	Risk Management			**x**