

The Measurement Standards Laboratory

Apprentice Framework

Intro

The Measurement Standards Laboratory (MSL) apprenticeship is a development role for selected individuals with the right qualities and mindset for completing the 24 month programme. The purpose of this role is to develop Metrology Technicians within New Zealand and the apprenticeship programme is designed to kickstart a candidate's career in a technically demanding work environment.

This document provides apprentices, assessors, employers and training providers an overview of the framework that supports the apprentice programme. This document does not seek to describe the processes, roles and responsibilities within the delivery of the programme.

Summary of apprenticeship programme

• First 6 months

- o Gain an understanding of basic measurement principles
- o Gain an understanding of measurement uncertainty and statistics
- Complete online training modules
- Gain a working knowledge of MSL's Quality Management System and the procedures it supports
- Observe and partake in calibrations
- o Build strong working relationships within their assigned team and across MSL
- o Become a participating member of the team
- o Gain an understanding of the principles of programming
- o Provide a presentation to MSL

• 6 months to 18 months

- Work placement #1
- Undertake a module with a tertiary education provider
- Project #1 Calibration of section equipment including procedure & report design and uncertainty analysis
- Shadow laboratory H&S work area inspections
- o Commercial reality training with industry representative
- Work placement #2
- Undertake a module with a tertiary education provider
- o Project #2 Shadow the characterising of an instrument at MSL incl. risk assessment
- Provide a presentation to all MSL
- Shadow MSL internal audit

• 18 months to 24 months

- Final project Complete the characterisation of an MSL instrument including uncertainty analysis and risk assessment
- o Mentor any new apprentice to share knowledge and experience
- Work placement #3
- Undertake a module with a tertiary education provider
- Conduct laboratory H&S work area inspection
- Undertake H&S legislation training session
- Preparation for the job market (CV, Mock interview, Brand)
- MSL apprenticeship graduation

Expectations of the Apprentice over the programme duration

- Carry out routine calibrations for practice and commercial jobs, including analysis and reporting
- Maintain a portfolio of work evidence
- Submit portfolio and supporting information to assessors 1 week in advance of assessment
- Provide regular updates to apprentice blog every 3 4 months
- Attend an industry conference
- Attend work placements in various locations around New Zealand

• Maintain a professional standard of behaviour

Apprentice performance tracking and assessments

The assessment plan has been designed to ensure that:

- On completion of the 24 month programme, the candidate has the necessary knowledge, skills, and behaviours to be employed in a technical role
- The assessments are appropriate, feasible and consistent
- The process adds value to both the apprentice and future employers

The approach to assessment has adopted the following broad principles:

- The assessment process will build on, and complement, the learning and development activities undertaken by the apprentice
- It should encourage continuing professional development
- It should position the apprentice for a career and encourage progression opportunities

The final assessment must have independence and requires the apprentice to demonstrate that they have the necessary skills and competencies and can work safely and confidently as a Metrology Technician.

Work placement feedback:

- Workplace supervisor to complete form included in Appendix 3
- Assessors to review and consider during assessment

Project feedback:

- Project supervisor to complete feedback form included in Appendix 4
- Assessors to review and consider during assessment

Formal assessments will involve a review of behaviours, skills, knowledge and the technical portfolio along with any other supporting material. The aim is for the candidate to reach the level of "Effective in Role" in all areas by the end of their 24 month period.

- The assessment forms for behavioural attributes are included in Appendix 1
- The assessment forms for skills and knowledge are included in Appendix 2
- 1st and 2nd assessments to be carried out by head of technical section and one other technician from a different section. The final assessment to include an industry representative.
 - o 1st Assessment (8 months)
 - o 2nd Assessment (16 months)
 - Final assessment (24 months)

Appendices

- Appendix 1 Behavioural assessment
- Appendix 2 Skills and knowledge assessment
- Appendix 3 Work placement feedback form
- Appendix 4 Project feedback form

Appendix 1 – Behavioural assessment

"The way one acts or conducts oneself"

BEHAVIOURAL ATTRIBUTES	DESCRIPTION
1) Concentration on Quality	Candidate displays a focus on quality and a high level of attention to detail and accuracy.
2) Logical Thinking	Candidate can process information using clear reasoning to reach sound conclusions and evaluate possibilities.
3) Curiously Motivated	Candidate is self-motivated and inquisitive. Shows the confidence to investigate issues, speak up and ask questions.
4) Growth Mindset	Candidate reflects on skills, knowledge and behaviours and seeks development opportunities and continuous improvement.
5) Team Interactions	Candidate works effectively in teams. Integrates and collaborates easily, listens well, supports other people, consider implications of their actions on others and holds a positive and respectful attitude. Shows a commitment to equality and diversity.
6) Professional Ethics	Candidate acts professionally, ethically and conscientiously by adhering to relevant legislation, regulations, standards, and organisational procedures. Demonstrates integrity and accountability.
7) Time Management	Candidate plans and manages time effectively and prioritises workloads to meet deadlines and customer requirements.
8) Commercial Awareness	Candidate recognises the relevance of time/cost efficiency and the need to meet both business and customer requirements.

For this assessment, the assessors interview the candidate's supervisor to gain an understanding of the level of behavioural progress displayed by the candidate in their everyday interactions. Discussion of opportunities for further development are also useful.

1) CONCENTRATION ON QUALITY

Candidate displays a focus on quality and a	DEMONSTRATES MASTERY	DEMONSTRATES POTENTIAL	EFFECTIVE IN ROLE	DEVELOPING	REQUIRES IMPROVEMENT
high level of attention to	Outstanding performance	Very strong performance	Consistently strong	Indicates good but	Major gaps in
detail and accuracy.	that always exceeds	that exceeds	performance, always	inconsistent	performance against
	expectations,	expectations in most	meets expectations,	performance, meeting	requirements or
Please circle the	demonstrated for an	situations and meets	occasionally exceeds	some, but not all	expectations. Immediate
appropriate level	extended, sustainable	expectations in all others.	expectations.	requirements or	and substantial
achieved.	period of time.			expectations.	improvements must be made.
Justification/evidence pro	vided:				
Areas for development:					
Assessor/Employer comm	ent(s):				

2) LOGICAL THINKING

Candidate can process	DEMONSTRATES	DEMONSTRATES	EFFECTIVE IN ROLE	DEVELOPING	REQUIRES
information using clear	MASTERY	POTENTIAL			IMPROVEMENT
reasoning to reach sound	Outstanding performance	Very strong performance	Consistently strong	Indicates good but	Major gaps in
conclusions and evaluate	that always exceeds	that exceeds	performance, always	inconsistent	performance against
possibilities.	expectations,	expectations in most	meets expectations,	performance, meeting	requirements or
	demonstrated for an	situations and meets	occasionally exceeds	some, but not all	expectations. Immediate
Please circle the	extended, sustainable	expectations in all others.	expectations.	requirements or	and substantial
appropriate level	period of time.			expectations.	improvements must be
achieved.					made.
Justification/evidence prov	vided:				
Areas for development:					
Assessor/Employer comme	ent(s):				

3) CURIOUSLY MOTIVATED

Candidate is self- motivated and	DEMONSTRATES MASTERY	DEMONSTRATES POTENTIAL	EFFECTIVE IN ROLE	DEVELOPING	REQUIRES IMPROVEMENT		
inquisitive. Shows the confidence to investigate	Outstanding performance that always exceeds	Very strong performance that exceeds	Consistently strong performance, always	Indicates good but inconsistent	Major gaps in performance against		
issues, speak up and ask	expectations,	expectations in most	meets expectations,	performance, meeting	requirements or		
questions.	demonstrated for an	situations and meets	occasionally exceeds	some, but not all	expectations. Immediate		
•	extended, sustainable	expectations in all others.	expectations.	requirements or	and substantial		
Please circle the	period of time.		·	expectations.	improvements must be		
appropriate level					made.		
achieved.							
Preparation notes and que	estions:						
Justification/evidence prov	vided:						
Areas for development:							
_							
Assessor/Employer comme	Assessor/Employer comment(s):						

4) GROWTH MINDSET

Candidate reflects on	DEMONSTRATES	DEMONSTRATES	EFFECTIVE IN ROLE	DEVELOPING	REQUIRES	
skills, knowledge and	MASTERY	POTENTIAL			IMPROVEMENT	
behaviours and seeks	Outstanding performance	Very strong performance	Consistently strong	Indicates good but	Major gaps in	
development	that always exceeds	that exceeds	performance, always	inconsistent	performance against	
opportunities and	expectations,	expectations in most	meets expectations,	performance, meeting	requirements or	
continuous	demonstrated for an	situations and meets	occasionally exceeds	some, but not all	expectations. Immediate	
improvement.	extended, sustainable	expectations in all others.	expectations.	requirements or	and substantial	
	period of time.			expectations.	improvements must be	
Please circle the					made.	
appropriate level						
achieved.						
Preparation notes and que	estions:					
Justification/evidence prov	vided:					
Areas for development:						
Assessor/Employer commo	ent(s):					

5) TEAM INTERACTIONS

Candidate works	DEMONSTRATES	DEMONSTRATES	EFFECTIVE IN ROLE	DEVELOPING	REQUIRES		
effectively in teams.	MASTERY	POTENTIAL			IMPROVEMENT		
Integrates and	Outstanding performance	Very strong performance	Consistently strong	Indicates good but	Major gaps in		
collaborates easily,	that always exceeds	that exceeds	performance, always	inconsistent	performance against		
listens well, supports	expectations,	expectations in most	meets expectations,	performance, meeting	requirements or		
other people, consider	demonstrated for an	situations and meets	occasionally exceeds	some, but not all	expectations. Immediate		
implications of their	extended, sustainable	expectations in all others.	expectations.	requirements or	and substantial		
actions on others and	period of time.			expectations.	improvements must be		
holds a positive and					made.		
respectful attitude.							
Shows a commitment to							
equality and diversity.							
Please circle the							
appropriate level							
achieved.							
Justification/evidence pro	vided:						
Areas for development:							
Assessor/Employer comm	Assessor/Employer comment(s):						

6) PROFESSIONAL ETHICS

Candidate acts professionally, ethically	DEMONSTRATES MASTERY	DEMONSTRATES POTENTIAL	EFFECTIVE IN ROLE	DEVELOPING	REQUIRES IMPROVEMENT		
and conscientiously by	Outstanding performance	Very strong performance	Consistently strong	Indicates good but	Major gaps in		
adhering to relevant	that always exceeds	that exceeds	performance, always	inconsistent	performance against		
legislation, regulations,	expectations,	expectations in most	meets expectations,	performance, meeting	requirements or		
standards, and	demonstrated for an	situations and meets	occasionally exceeds	some, but not all	expectations. Immediate		
organisational	extended, sustainable	expectations in all others.	expectations.	requirements or	and substantial		
procedures.	period of time.			expectations.	improvements must be		
Demonstrates integrity					made.		
and accountability.							
Please circle the							
appropriate level							
achieved.							
Justification/evidence prov	Justification/evidence provided:						
Areas for development:							
Assessor/Employer comme	Assessor/Employer comment(s):						

7) TIME MANAGEMENT

Candidate plans and	DEMONSTRATES	DEMONSTRATES	EFFECTIVE IN ROLE	DEVELOPING	REQUIRES
manages time effectively and prioritises workloads	MASTERY	POTENTIAL	Compilet and by attraction	Leading to a second back	IMPROVEMENT
to meet deadlines and	Outstanding performance that always exceeds	Very strong performance that exceeds	Consistently strong	Indicates good but inconsistent	Major gaps in
customer requirements.	expectations,	expectations in most	performance, always meets expectations,	performance, meeting	performance against requirements or
customer requirements.	demonstrated for an	situations and meets	occasionally exceeds	some, but not all	expectations. Immediate
Please circle the	extended, sustainable	expectations in all others.	expectations.	requirements or	and substantial
appropriate level	period of time.	expectations in an others.	скрессилона.	expectations.	improvements must be
achieved.	period or time.			CAPCOLUCIONSI	made.
Justification/evidence prov	vided:				
Areas for development:					
Assessor/Employer commo	ent(s):				

8) COMMERCIAL AWARENESS

Candidate recognises the relevance of time/cost	DEMONSTRATES MASTERY	DEMONSTRATES POTENTIAL	EFFECTIVE IN ROLE	DEVELOPING	REQUIRES IMPROVEMENT		
efficiency and the need	Outstanding performance	Very strong performance	Consistently strong	Indicates good but	Major gaps in		
to meet both business	that always exceeds	that exceeds	performance, always	inconsistent	performance against		
and customer	expectations,	expectations in most	meets expectations,	performance, meeting	requirements or		
requirements.	demonstrated for an	situations and meets	occasionally exceeds	some, but not all	expectations. Immediate		
	extended, sustainable	expectations in all others.	expectations.	requirements or	and substantial		
Please circle the	period of time.			expectations.	improvements must be		
appropriate level					made.		
achieved.							
Preparation notes and que	stions:						
Justification/evidence prov	vided:						
Areas for development:							
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Assessor/Employer comme	Assessor/Employer comment(s):						
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Appendix 2 – Skills and knowledge assessment

"The ability to perform an action with determined results using skills acquired through experience or education"

KNOWLEDGE / SKILL AREA	DESCRIPTION
9) Measurement Infrastructure	Candidate understands the principles of metrology and their application within industry, law, science and society, including measurement units, traceability and uncertainty.
10) Quality System	Candidate is familiar with ISO quality standards as well as quality assurance, inspection, accreditation and audit systems. Can explain why these are important in Metrology.
11) Practical Skills	Candidate demonstrates technical dexterity, workshop skills, basic electronics and programming. Shows competence in fault-finding and debugging.
12) Measurement Practice	Candidate plans and performs measurement tasks to ensure verifiable results, using measurement tools, equipment, instrumentation and software programs correctly. Follows specified procedures and methodologies and acts when non-conforming tools, equipment, instrumentation, materials and software programs have been identified.
13) Data analysis	Candidate can retrieve, analyse, interpret, validate and record measurement results and data. Recognises trends as well as data irregularities and can identify probable sources.
14) Measurement Uncertainty	Candidate can identify sources of uncertainty, draft an appropriate model equation and calculate measurement uncertainty for a common instrument calibrated by a 2 nd tier laboratory.
15) Problem Solving	Candidate follows an analytical approach to solving problems through data collection, analysis and interpretation.
16) Communication Skills	Candidate communicates facts, concepts, theories and outcomes using discussion, presentation skills and written reports.
17) Compliance Requirements	Candidate understands and complies with relevant Health and Safety policies and procedures and requirements relating to safe working practices. Candidate also understands and complies with statutory regulations, national and international standards, industry requirements and organisational procedures.

Prior to this assessment, the candidate submits their portfolio of evidence to allow the assessors time to form questions about each of the knowledge and skill areas. During the assessment they may ask the candidate for explanations or demonstrations in order to assess the level of progress and identify areas for development.

9) MEASUREMENT INFRASTRUCTURE

Candidate understands	DEMONSTRATES	DEMONSTRATES	EFFECTIVE IN ROLE	DEVELOPING	REQUIRES		
the principles of	MASTERY	POTENTIAL			IMPROVEMENT		
metrology and their	Outstanding performance	Very strong performance	Consistently strong	Indicates good but	Major gaps in		
application within	that always exceeds	that exceeds	performance, always	inconsistent	performance against		
industry, law, science and	expectations,	expectations in most	meets expectations,	performance, meeting	requirements or		
society, including	demonstrated for an	situations and meets	occasionally exceeds	some, but not all	expectations. Immediate		
measurement units,	extended, sustainable	expectations in all others.	expectations.	requirements or	and substantial		
traceability and	period of time.			expectations.	improvements must be		
uncertainty.					made.		
Please circle the							
appropriate level							
achieved.							
Justification/evidence prov	rided:						
Areas for development:							
Assessor/Employer comme	Assessor/Employer comment(s):						

10) QUALITY SYSTEM

Candidate is familiar with	DEMONSTRATES	DEMONSTRATES	EFFECTIVE IN ROLE	DEVELOPING	REQUIRES		
ISO quality standards as	MASTERY	POTENTIAL			IMPROVEMENT		
well as quality assurance,	Outstanding performance	Very strong performance	Consistently strong	Indicates good but	Major gaps in		
inspection, accreditation	that always exceeds	that exceeds	performance, always	inconsistent	performance against		
and audit systems. Can	expectations,	expectations in most	meets expectations,	performance, meeting	requirements or		
explain why these are	demonstrated for an	situations and meets	occasionally exceeds	some, but not all	expectations. Immediate		
important in Metrology.	extended, sustainable	expectations in all others.	expectations.	requirements or	and substantial		
	period of time.	·		expectations.	improvements must be		
Please circle the	•				made.		
appropriate level							
achieved.							
Preparation notes and que	stions:			-	·		
Justification/evidence prov	vided:						
Areas for development:							
Assessor/Employer comme	Assessor/Employer comment(s):						
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11) PRACTICAL SKILLS

technical dexterity, workshop skills, basic electronics and programming. Shows competence in fault- finding and debugging. Please circle the appropriate level achieved. Preparation notes and questions: MASTERY POTENTIAL Outstanding performance that always exceeds expectations performance that always exceeds expectations in most situations and meets expectations. Expectations in all others. Potential Outstanding performance that always exceeds expectations in most situations and meets expectations, occasionally exceeds expectations. Expectations in all others. Preparation notes and questions: Major gaps in performance, always meets expectations, occasionally exceeds expectations. Expectations in all others. Potential Outstanding performance that always exceeds expectations in most situations and meets expectations. Expectations in all others. Preparation notes and questions: Justification/evidence provided:	Candidate demonstrates	DEMONSTRATES	DEMONSTRATES	EFFECTIVE IN ROLE	DEVELOPING	REQUIRES		
Outstanding performance that always exceeds expectations, demonstrated for an extended, sustainable period of time. Please circle the appropriate level achieved. Preparation notes and questions: Usry strong performance that always exceeds expectations in most situations and meets expectations in all others. Usry strong performance, always meets expectations, occasionally exceeds expectations. Usry strong performance, always meets expectations, occasionally exceeds expectations. Usry strong performance, always meets expectations, occasionally exceeds expectations. Usry strong performance, always meets expectations in most situations and meets expectations. Indicates good but inconsistent performance, always meets expectations. Preparation notes and questions: Usry strong performance, always meets expectations, occasionally exceeds expectations. User performance, always meets expectations, occasionally exceeds expectations. User performance, always meets expectations, occasionally exceeds expectations. Indicates good but inconsistent performance, meeting some, but not all requirements or expectations. Indicates good but inconsistent performance, meeting some, but not all requirements or expectations. Indicates good but inconsistent performance, meeting some, but not all requirements or expectations. Indicates good but inconsistent performance, meeting some, but not all requirements or expectations. Indicates good but inconsistent performance expectations in most situations and meets expectations. Indicates good but inconsistent performance expectations. Indicates good but inconsistent perf	technical dexterity,	MASTERY				-		
that always exceeds expectations, of demonstrated for an extended, sustainable period of time. Please circle the appropriate level achieved. Preparation notes and questions: Justification/evidence provided: that always exceeds expectations, demonstrated for an extended, sustainable period of time. that always exceeds expectations in most situations and meets expectations, occasionally exceeds expectations. performance, always meets expectations, occasionally exceeds some, but not all requirements or expectations. Immediate and substantial improvements must be made. Preparation notes and questions: Justification/evidence provided: Areas for development:	workshop skills, basic	Outstanding performance	Very strong performance	Consistently strong	Indicates good but	Major gaps in		
programming. Shows competence in fault-finding and debugging. Please circle the appropriate level achieved. Preparation notes and questions: Areas for development: expectations, demonstrated for an extended, sustainable period of time. expectations, it utations and meets expectations, occasionally exceeds expectations. meets expectations, occasionally exceeds expectations. meets expectations, occasionally exceeds expectations. performance, meeting some, but not all requirements or expectations. meets expectations, occasionally exceeds expectations. performance, meeting some, but not all requirements or expectations. meets expectations, occasionally exceeds expectations. Preparation notes and questions: Areas for development:	electronics and			· -	_			
Please circle the appropriate level achieved. Preparation notes and questions: Areas for development: expectations in all others. expectations in all others. expectations. expectations. expectations. expectations. requirements or expectations. requirements or expectations. and substantial improvements must be made. and substantial improvements must be made. Areas for development:	programming. Shows	-	expectations in most		performance, meeting			
Please circle the appropriate level achieved. Preparation notes and questions: Justification/evidence provided: Areas for development:	competence in fault-	•	I	=	-			
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Areas for development:	Justification/evidence pro	vided:						
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Assessor/Employer comment(s):	Areas for development:							
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Assessor/Employer comment(s):	A/F 1							
	Assessor/Employer comm	ent(s):						

12) MEASUREMENT PRACTICE

Candidate plans and	DEMONSTRATES	DEMONSTRATES	EFFECTIVE IN ROLE	DEVELOPING	REQUIRES	
performs measurement	MASTERY	POTENTIAL			IMPROVEMENT	
tasks to ensure verifiable	Outstanding performance	Very strong performance	Consistently strong	Indicates good but	Major gaps in	
results, using	that always exceeds	that exceeds	performance, always	inconsistent	performance against	
measurement tools,	expectations,	expectations in most	meets expectations,	performance, meeting	requirements or	
equipment,	demonstrated for an	situations and meets	occasionally exceeds	some, but not all	expectations. Immediate	
instrumentation and	extended, sustainable	expectations in all others.	expectations.	requirements or	and substantial	
software programs	period of time.			expectations.	improvements must be	
correctly. Follows					made.	
specified procedures and						
methodologies and acts						
when non-conforming						
tools, equipment,	Preparation notes and que	estions:				
instrumentation,						
materials and software						
programs have been						
identified.						
Please circle the						
appropriate level						
achieved.						
Justification/evidence prov	vided:					
Areas for development:						
Assessor/Employer commo	ent(s):					

13) DATA ANALYSIS

Candidate can retrieve,	DEMONSTRATES	DEMONSTRATES	EFFECTIVE IN ROLE	DEVELOPING	REQUIRES			
analyse, interpret,	MASTERY	POTENTIAL			IMPROVEMENT			
validate and record	Outstanding performance	Very strong performance	Consistently strong	Indicates good but	Major gaps in			
measurement results and	that always exceeds	that exceeds	performance, always	inconsistent	performance against			
data. Recognises trends	expectations,	expectations in most	meets expectations,	performance, meeting	requirements or			
as well as data	demonstrated for an	situations and meets	occasionally exceeds	some, but not all	expectations. Immediate			
irregularities and can	extended, sustainable	expectations in all others.	expectations.	requirements or	and substantial			
identify probable	period of time.			expectations.	improvements must be			
sources.					made.			
Please circle the								
appropriate level								
achieved.								
	Justification/evidence provided:							
Areas for development:								
Assessor/Employer comment(s):								
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Assessor/ Employer comme	(3).							

14) MEASUREMENT UNCERTAINTY

Candidate can identify	DEMONSTRATES	DEMONSTRATES	EFFECTIVE IN ROLE	DEVELOPING	REQUIRES		
sources of uncertainty,	MASTERY	POTENTIAL			IMPROVEMENT		
draft an appropriate	Outstanding performance	Very strong performance	Consistently strong	Indicates good but	Major gaps in		
model equation and	that always exceeds	that exceeds	performance, always	inconsistent	performance against		
calculate measurement	expectations,	expectations in most	meets expectations,	performance, meeting	requirements or		
uncertainty for a	demonstrated for an	situations and meets	occasionally exceeds	some, but not all	expectations. Immediate		
common instrument	extended, sustainable	expectations in all others.	expectations.	requirements or	and substantial		
calibrated by a 2 nd tier	period of time.			expectations.	improvements must be		
laboratory.					made.		
Please circle the							
appropriate level							
achieved.							
Justification/evidence pro	vviueu.						
Areas for development:							
Assessor/Employer comment(s):							

15) PROBLEM SOLVING

Candidate follows an	DEMONSTRATES	DEMONSTRATES	EFFECTIVE IN ROLE	DEVELOPING	REQUIRES			
analytical approach to	MASTERY	POTENTIAL			IMPROVEMENT			
solving problems through	Outstanding performance	Very strong performance	Consistently strong	Indicates good but	Major gaps in			
data collection, analysis	that always exceeds	that exceeds	performance, always	inconsistent	performance against			
and interpretation.	expectations,	expectations in most	meets expectations,	performance, meeting	requirements or			
	demonstrated for an	situations and meets	occasionally exceeds	some, but not all	expectations. Immediate			
Please circle the	extended, sustainable	expectations in all others.	expectations.	requirements or	and substantial			
appropriate level	period of time.			expectations.	improvements must be			
achieved.					made.			
Justification/evidence prov	Justification/evidence provided:							
Areas for development:								
Assessor/Employer comme	ent(s):							

16) COMMUNICATION SKILLS

Candidate communicates facts, concepts, theories	DEMONSTRATES MASTERY	DEMONSTRATES POTENTIAL	EFFECTIVE IN ROLE	DEVELOPING	REQUIRES IMPROVEMENT			
and outcomes using	Outstanding performance	Very strong performance	Consistently strong	Indicates good but	Major gaps in			
discussion, presentation	that always exceeds	that exceeds	performance, always	inconsistent	performance against			
skills and written reports.	expectations,	expectations in most	meets expectations,	performance, meeting	requirements or			
	demonstrated for an	situations and meets	occasionally exceeds	some, but not all	expectations. Immediate			
Please circle the	extended, sustainable	expectations in all others.	expectations.	requirements or	and substantial			
appropriate level achieved.	period of time.			expectations.	improvements must be made.			
Preparation notes and que	stions:	L	<u> </u>	1	1			
1 1161 11	• • •							
Justification/evidence prov	/ided:							
Areas for development:								
•								
Assessor/Employer comme	Assessor/Employer comment(s):							

17) COMPLIANCE REQUIREMENTS

Candidate understands	DEMONSTRATES MASTERY	DEMONSTRATES POTENTIAL	EFFECTIVE IN ROLE	DEVELOPING	REQUIRES IMPROVEMENT		
and complies with relevant Health and			Canalata athuataa a	Lodinates and but			
Safety policies and	Outstanding performance	Very strong performance that exceeds	Consistently strong	Indicates good but	Major gaps in		
procedures and	that always exceeds		performance, always	inconsistent	performance against		
requirements relating to	expectations, demonstrated for an	expectations in most	meets expectations,	performance, meeting	requirements or		
safe working practices.		situations and meets	occasionally exceeds	some, but not all	expectations. Immediate and substantial		
Candidate also	extended, sustainable	expectations in all others.	expectations.	requirements or			
understands and	period of time.			expectations.	improvements must be		
complies with statutory					made.		
regulations, national and							
international standards,	Preparation notes and que	l estions:			1		
industry requirements	i reparation notes and que	Julia.					
and organisational							
procedures.							
Please circle the							
appropriate level							
achieved.							
Justification/evidence prov	vided:						
Areas for development:							
Assessor/Employer comment(s):							

Appendix 3 – Work placement feedback form

Appropticat		Placement Dates:	
Apprentice:			
Supervisor:		Organisation:	
BEHAVIOURAL ATTRIBUT	ES		
The attributes we'd like th	ne apprentice to display inc	lude self-motivation, curio	sity, attention to detail,
enthusiasm, respect for o	thers, proactiveness and pr	ofessionalism.	
Can you comment on whe	ether the apprentice showe	ed any or all of these attrib	utes?
To assist us in preparing t	he apprentice for future te	chnical positions, which att	tribute(s) could the
apprentice enhance? and	• •	ommour positions, minor att	induce(s) codia inc
TECHNICAL CIVILIC			
TECHNICAL SKILLS	osing the right tool for the	ich using instruments ser	roctly and working in a
	llecting data, analysing res		rectly and working in a
	emonstrate their technical		?
		,	
A settle see see see the fee of	Eller of Alitha discourse		
Are there any particular s	kills you'd like the apprenti	ce to develop?	
KNOWLEDGE BASE			
_,	t covering basic principles,	•	certainty, documentary
	edures and software progra		
Can you summarise your	view of the apprentice's mo	etrology understanding?	
Which area of knowledge	would you recommend the	e apprentice focus on in fu	rther learning?
OVERALL IMPRESSION			
	npression of the apprentice	<u> </u>	
2 3301100 your chadring in	.p. 555ion of the apprentice		

Appendix 4 – Project feedback form

Apprentice:		Supervisor:	
Project:			<u> </u>
PROJECT GOALS:			
D l			
Research How well did the apprent	ice research the subject?		
Methodology			
Was a methodical approa	ch used?		
Technical aptitude Did the apprentice display	technical skills necessary	to complete the project?	
Innovative thinking			
Comment on an innovativ	e approach initiated by the	e apprentice during the proj	ect.
Measurement uncertainty			
Comment on the approac	h used to evaluate measur	ement uncertainty.	
Environmental considerat			
Was appropriate consider	ation given to environmen	tal effects?	
Reporting			
Can you comment on how	well the project was docu	imented?	