

# apprenticeship FRAMEWORK

## Extractives and Mineral Processing Occupations - Non-Statutory (Wales)

### Latest framework version?

Please use this link to see if this is the latest issued version of this framework:

[afo.sscalliance.org/frameworkslibrary/index.cfm?id=FR02246](http://afo.sscalliance.org/frameworkslibrary/index.cfm?id=FR02246)

Issue date: 18 June 2013

Published by  
Proskills

apprenticeship  
FRAMEWORKS ONLINE  
[www.afo.sscalliance.org](http://www.afo.sscalliance.org)

# Extractives and Mineral Processing Occupations - Non-Statutory (Wales)

## Contents

Framework summary .....	3
Framework information .....	9
Contact information .....	10
Revising a framework .....	11
Purpose of the framework .....	12
Entry conditions .....	16
Level 2: Foundation Apprenticeship in Extractives and Mineral Processing .....	18
Pathway 1: Mining Operations .....	19
Pathway 2: Fixed Plant Operations .....	30
Pathway 3: Mobile Plant Operations .....	40
Pathway 4: Extractives Drill Rig Operations .....	53
Pathway 5: Mines Rescue .....	61
Pathway 6: Blasting Operations .....	69
Level 3: Apprenticeship in Extractives and Mineral Processing .....	77
Pathway 1: Mines - Electrical .....	78
Pathway 2: Mines - Mechanical .....	89
Pathway 3: Mines Shotfiring .....	100
Pathway 4: Mines Maintenance Supervision .....	108
Pathway 5: Processing Plant Supervision .....	118
Pathway 6: Shotfiring .....	126
Pathway 7: Mines - Electrical - POTASH .....	134
Pathway 8: Mines - Mechanical - POTASH .....	145
Equality and diversity .....	156
On and off the job training .....	159
Wider key skills .....	170
Additional employer requirements .....	171

# Framework summary

## Extractives and Mineral Processing Occupations - Non-Statutory

### Foundation Apprenticeship in Extractives and Mineral Processing

#### Pathways for this framework at level 2 include:

##### Pathway 1: Mining Operations

**Competence qualifications available to this pathway:**

- C1 - Level 2 Certificate in Mining Operations
- C2 - Level 2 Diploma in Mining Operations

**Knowledge qualifications available to this pathway:**

- K1 - Level 2 Award in An Introduction to Mining in the Extractive and Mineral Processing Industries

**Combined qualifications available to this pathway:**

N/A

**This pathway also contains information on:**

- Employee rights and responsibilities
- Essential skills

##### Pathway 2: Fixed Plant Operations

**Competence qualifications available to this pathway:**

- C1 - Level 2 NVQ Certificate in Processing Operations for the Extractive and Minerals Processing Industries
- C2 - Level 2 NVQ Diploma in Standard Processing Operations for the Extractive and Minerals Processing Industries
- C3 - Level 2 NVQ Diploma in Standard Processing Operations for the Extractive and Minerals Processing Industries
- C4 - Level 2 Diploma in Asphalt Production in the Extractive and Mineral Processing Industry
- C5 - Level 2 Diploma in Ready Mixed Concrete Production

**Knowledge qualifications available to this pathway:**

- K1 - Level 2 Award in an Introduction to Mineral Processing in the Extractive and Minerals Processing Industries

**Combined qualifications available to this pathway:**

N/A

**This pathway also contains information on:**

- Employee rights and responsibilities
- Essential skills

##### Pathway 3: Mobile Plant Operations

**Competence qualifications available to this pathway:**

- C1 - Level 2 NVQ Certificate in Plant Operations (Extractives- Accessing Plant)
- C2 - Level 2 NVQ Certificate in Plant Operations (Extractives - Compacting Plant)
- C3 - Level 2 NVQ Certificate in Plant Operations (Extractives - Extracting Plant)

- C4 - Level 2 NVQ Certificate in Plant Operations (Extractives - Fork Lift Trucks)
- C5 - Level 2 NVQ Certificate in Plant Operations (Extractives - Transporting Loads Plant)
- C6 - Level 2 NVQ Diploma in Plant Operations (Extractives - Compacting Plant)
- C7 - Level 2 NVQ Diploma in Plant Operations (Extractives - Constructing and Forming Plant)
- C8 - Level 2 NVQ Certificate in Plant Operations (Extractives - Banking Operations)
- C9 - Level 2 NVQ Certificate in Plant Operations (Extractives - Cranes and Specialist Lifting Plant)
- C10 - Level 2 NVQ Diploma in Plant Operations (Extractives - Cranes and Specialist Lifting Plant)
- C11 - Level 2 NVQ Diploma in Plant Operations (Extractives - Excavating Plant)
- C12 - Level 2 NVQ Diploma in Plant Operations (Extractives - Extracting Plant)
- C13 - Level 2 NVQ Diploma in Plant Operations (Extractives - Fork Lift Trucks)
- C14 - Level 2 NVQ Diploma in Plant Operations (Extractives - Laying and Distributing Plant)
- C15 - Level 2 NVQ Diploma in Plant Operations (Extractives - Transporting Loads Plant)

**Knowledge qualifications available to this pathway:**

K1 - Level 2 Award in An Introduction to Plant Operations in the Extractive and Minerals Processing Industries

**Combined qualifications available to this pathway:**

N/A

**This pathway also contains information on:**

- Employee rights and responsibilities
- Essential skills

#### Pathway 4: Extractives Drill Rig Operations

**Competence qualifications available to this pathway:**

C1 - Level 2 NVQ Diploma in Drilling Operations for the Extractive and Minerals Processing Industries

**Knowledge qualifications available to this pathway:**

K1 - Level 2 Award in An Introduction to Drilling Operations in the Extractive and Minerals Processing Industries

**Combined qualifications available to this pathway:**

N/A

**This pathway also contains information on:**

- Employee rights and responsibilities
- Essential skills

#### Pathway 5: Mines Rescue

**Competence qualifications available to this pathway:**

C1 - Level 2 Diploma for Mine Rescue Workers

**Knowledge qualifications available to this pathway:**

K1 - Level 2 Award in An Introduction to Mining in the Extractives and Minerals Processing Industries

**Combined qualifications available to this pathway:**

N/A

**This pathway also contains information on:**

- Employee rights and responsibilities
- Essential skills

#### Pathway 6: Blasting Operations

**Competence qualifications available to this pathway:**

C1 - Level 2 NVQ Certificate in Face Profiling for the Extractive and Minerals Processing Industries

**Knowledge qualifications available to this pathway:**

K1 - Level 2 Award in An Introduction to Blasting in the Extractive and Minerals Processing Industries

**Combined qualifications available to this pathway:**

N/A

**This pathway also contains information on:**

- Employee rights and responsibilities
- Essential skills

## Extractives and Mineral Processing Occupations - Non-Statutory

### Apprenticeship in Extractives and Mineral Processing

#### Pathways for this framework at level 3 include:

##### Pathway 1: Mines - Electrical

**Competence qualifications available to this pathway:**

C1 - Level 3 Diploma in Mining Electrical Operations

**Knowledge qualifications available to this pathway:**

K1 - Edexcel BTEC Level 3 Diploma in Engineering

K2 - EAL Level 3 Diploma in Maintenance Engineering Technology

K3 - Level 3 Diploma in Engineering

K4 - EAL Level 3 Diploma in Engineering and Technology (Progressive)

K5 - Edexcel BTEC Level 3 Extended Diploma in Operations and Maintenance Engineering

K6 - Edexcel BTEC Level 3 Diploma in Operations and Maintenance Engineering

K7 - Edexcel BTEC Level 3 Diploma in Mechanical Engineering (QCF)

K8 - Edexcel BTEC Level 3 Diploma in Electrical/ Electronic Engineering (QCF)

**Combined qualifications available to this pathway:**

N/A

**This pathway also contains information on:**

- Employee rights and responsibilities
- Essential skills

##### Pathway 2: Mines - Mechanical

**Competence qualifications available to this pathway:**

C1 - Level 3 Diploma in Mining Mechanical Operations

**Knowledge qualifications available to this pathway:**

K1 - Edexcel BTEC Level 3 Diploma in Engineering

K2 - EAL Level 3 Diploma in Maintenance Engineering Technology

K3 - Level 3 Diploma in Engineering

K4 - EAL Level 3 Diploma in Engineering and Technology (Progressive)

K5 - Edexcel BTEC Level 3 Extended Diploma in Operations and Maintenance Engineering

K6 - Edexcel BTEC Level 3 Diploma in Operations and Maintenance Engineering

K7 - Edexcel BTEC Level 3 Diploma in Mechanical Engineering (QCF)

K8 - Edexcel BTEC Level 3 Diploma in Electrical/ Electronic Engineering (QCF)

**Combined qualifications available to this pathway:**

N/A

**This pathway also contains information on:**

- Employee rights and responsibilities
- Essential skills

### Pathway 3: Mines Shotfiring

**Competence qualifications available to this pathway:**

C1 - Level 3 Diploma in Shotfiring for Mining Operations

**Knowledge qualifications available to this pathway:**

K1 - Level 3 Certificate in Extractive and Minerals Processing Industries

**Combined qualifications available to this pathway:**

N/A

**This pathway also contains information on:**

- Employee rights and responsibilities
- Essential skills

### Pathway 4: Mines Maintenance Supervision

**Competence qualifications available to this pathway:**

C1 - Level 3 Diploma in Supervision of Mines Technical Operations

**Knowledge qualifications available to this pathway:**

K1 - Edexcel BTEC Level 3 Diploma in Engineering

K2 - EAL Level 3 Diploma in Maintenance Engineering Technology

K3 - Level 3 Diploma in Engineering

K4 - EAL Level 3 Diploma in Engineering and Technology (Progressive)

K5 - Edexcel BTEC Level 3 Extended Diploma in Operations and Maintenance Engineering

K6 - Edexcel BTEC Level 3 Diploma in Operations and Maintenance Engineering

**Combined qualifications available to this pathway:**

N/A

**This pathway also contains information on:**

- Employee rights and responsibilities
- Essential skills

### Pathway 5: Processing Plant Supervision

**Competence qualifications available to this pathway:**

C1 - Level 3 Diploma for Asphalt Production in the Extractive and Mineral Process Industry

C2 - Level 3 Diploma in Ready Mixed Concrete Production

**Knowledge qualifications available to this pathway:**

K1 - Level 3 Certificate in Extractive and Minerals Processing Industries

**Combined qualifications available to this pathway:**

N/A

**This pathway also contains information on:**

- Employee rights and responsibilities

- Essential skills

### Pathway 6: Shotfiring

**Competence qualifications available to this pathway:**

C1 - Level 3 NVQ Diploma in Shotfiring for the Extractive and Minerals Processing Industries

C2 - Level 3 Diploma for Shotfiring in Construction

**Knowledge qualifications available to this pathway:**

K1 - Level 3 Certificate in Extractive and Minerals Processing Industries

**Combined qualifications available to this pathway:**

N/A

**This pathway also contains information on:**

- Employee rights and responsibilities
- Essential skills

### Pathway 7: Mines - Electrical - POTASH

**Competence qualifications available to this pathway:**

C1 - Level 3 Diploma in Mining Electrical Operations

C2 - Level 3 Diploma in Carrying Out Condition Monitoring of Mining Plant and Equipment

**Knowledge qualifications available to this pathway:**

K1 - Edexcel BTEC Level 3 Diploma in Engineering

K2 - EAL Level 3 Diploma in Maintenance Engineering Technology

K3 - Level 3 Diploma in Engineering

K4 - EAL Level 3 Diploma in Engineering and Technology (Progressive)

K5 - Edexcel BTEC Level 3 Extended Diploma in Operations and Maintenance Engineering

K6 - Edexcel BTEC Level 3 Diploma in Operations and Maintenance Engineering

**Combined qualifications available to this pathway:**

N/A

**This pathway also contains information on:**

- Employee rights and responsibilities
- Essential skills

### Pathway 8: Mines - Mechanical - POTASH

**Competence qualifications available to this pathway:**

C1 - Level 3 Diploma in Mining Mechanical Operations

C2 - Level 3 Diploma in Carrying Out Condition Monitoring of Mining Plant and Equipment

**Knowledge qualifications available to this pathway:**

K1 - Edexcel BTEC Level 3 Diploma in Engineering

K2 - EAL Level 3 Diploma in Maintenance Engineering Technology

K3 - Level 3 Diploma in Engineering

K4 - EAL Level 3 Diploma in Engineering and Technology (Progressive)

K5 - Edexcel BTEC Level 3 Extended Diploma in Operations and Maintenance Engineering

K6 - Edexcel BTEC Level 3 Diploma in Operations and Maintenance Engineering

**Combined qualifications available to this pathway:**

N/A

**This pathway also contains information on:**

- Employee rights and responsibilities
- Essential skills



# Framework information

## Information on the Publishing Authority for this framework:

### Proskills

The Apprenticeship sector for occupations in printing, mineral extraction and processing, health and safety and process and manufacturing of furniture, glass, ceramics, coatings and paper (also includes glazing, building products, wood and mining).

Issue number: 6	<b>This framework includes:</b>
Framework ID: FR02246	Level 2 Level 3
Date this framework is to be reviewed by: 30/06/2013	<b>This framework is for use in: Wales</b>

## Short description

The Extractives and Mineral Processing framework provides work based training for young people and adults to undertake key manufacturing and technical roles in Extractives & Mineral Processing industries. There are two levels of Apprenticeship contained in this framework:

- Level 2 Foundation Apprenticeship in Extractives and Mineral Processing
- Level 3 Apprenticeship in Extractives and Mineral Processing

The framework contains details of the vocational qualifications, knowledge based technical qualifications, essential skills Wales (Communication and Application of Number) and employee rights and responsibilities that are required for an Apprenticeship in Extractives and Mineral Processing.

Apprentices undertake training both on and off-the-job at their workplace and some training can also be undertaken away from the workplace, delivered by a local training provider or a further education college.

# Contact information

## Proposer of this framework

This framework is published by Proskills UK on a non-statutory basis prior to the designation of Issuing Authorities for Wales

## Developer of this framework

Name: Lisa Williamson  
Organisation: Proskills UK  
Organisation type: Standard Setting Body  
Job title: Standards & Qualifications Manager  
Phone: 01235 833844  
Email: andy.rotherham@proskills.co.uk  
Postal address: 24 East Central,  
127 Olympic Avenue,  
Milton Park,  
Abingdon,  
Oxfordshire,  
OX14 4SA  
Website: [www.proskills.co.uk](http://www.proskills.co.uk)

## Issuing Authority's contact details

Issued by:  
Issuer contact name:  
Issuer phone:  
Issuer email: [na@na.co.uk](mailto:na@na.co.uk)

# Revising a framework

## Contact details

Who is making this revision: Lisa Williamson  
Your organisation: Proskills UK  
Your email address: apprenticeships@proskills.co.uk

## Why this framework is being revised

Updated contact details

## Summary of changes made to this framework

### Qualifications removed

*(no information)*

### Qualifications added

Edexcel BTEC Level 3 Diploma in Mechanical Engineering (QCF) 500/7283/3  
Edexcel BTEC Level 3 Diploma in Electrical/Electronic Engineering (QCF) 500/8098/2

### Qualifications that have been extended

*(no information)*

# Purpose of this framework

## Summary of the purpose of the framework

Manufacturing is a key sector in the Welsh economy, directly accounting for 18% of Welsh GDP. However, many factors will continue to have an impact on companies in the sector, such as difficult trading conditions, competition, advancing technology, legislation and environmental issues and changing working practices. These are all factors that companies in Wales have identified will have a significant impact on their businesses over the coming years.

Everyone depends on the earth's mineral resources. These natural resources must be found, then mined, quarried or dredged from the ground or sea bed and processed to provide the materials and products which are essential to our daily lives.

Extraction takes place at either quarries for sand, gravel and rock; mines for coal, salt and potash and dredging from the sea bed for sand and gravel. Materials from both quarrying and dredging are then processed to meet the needs of customers. For example, crushed rock can be coated with bitumen at an asphalt plant and then used to make or repair roads, runways, playgrounds, car parks and much more. Crushed rock, sand and gravel can be mixed with cement to produce concrete which is widely used in construction. The construction industry is totally reliant on minerals in order to build homes, hospitals, bridges and roads. Such is the importance of the materials quarried and mined.

The Extractives and Mineral Processing industry is very diverse and can be divided into a number of different sub-sectors. For example, the industry covers:

- Deep coal mines and opencast coal working
- Mining and agglomeration of lignite
- Extraction and agglomeration of peat
- Manufacture of solid fuel
- Mining of iron ore, uranium, thorium and other non-ferrous metal ores
- Quarrying of ornamental and building stone, limestone, gypsum, chalk and slate
- Operation of sand and gravel pits
- Mining of clays, kaolin, chemical and fertilizer minerals
- Production of salt
- Manufacture of cement, lime, plaster, ready-mixed concrete and mortars
- Cutting, shaping and finishing of ornamental and building stone
- Other mining and quarrying activities

Currently quarrying and mining employs nearly 50 thousand people in the UK and a further 20 thousand in jobs related to the industry - technicians, fitters, drillers etc. The total annual production value exceeds £6 billion. There are over 1,300 quarries in the UK supported by a

fleet of 25 marine aggregate dredgers together they produce 210 million tonnes of aggregate per year.

The skill base requirements for the sector covers a wide scope, ranging from mobile and fixed plant operators through to mining technicians and quarry managers. The industry offers a vast array of opportunities ranging from mining, civil, mechanical and industrial engineering, geology, logistics, operations, production, environment, health & safety and sales and marketing.

It is widely predicted that higher level management and technical skills will become increasingly important to the industry in the future as more of the elementary tasks become automated. There will be a continuing need for Health & Safety skills in the sector and it will become more important for workers to be multi-skilled and be able to work across several areas of the business.

Proskills works with employers from the Extractives and Mineral Processing Industries to help businesses improve their productivity and competitiveness through skills training.

Currently almost half of employers in Wales train their employees and a fifth agree that the need to increase workforce skills will continue to be a key factor in the coming years. Organisations who are training are much more likely to be developing new products and looking to enter new markets. Training is also heavily associated with developing new working practices and technological advances.

Extensive research and comprehensive employer consultation has identified a need to upskill current and future workforces to enable businesses in the Extractives and Mineral Processing industries to address the challenges they currently face. The current economic climate means that there is an increasing need for workforces to be multi-skilled.

Skills training is required to help Extractives and Mineral Processing industries address the following:

- Skills shortages
- To meet constantly changing consumer demands and preferences
- To support legislation compliance on Health and Safety as well as Environmental Management
- To improve efficiencies by tightening up processes to tackle the issue of rising energy costs and the need for more energy-efficient machinery and processes
- To drive business performance improvements to increase national and global competitiveness

- To keep up with technological advances
- To improve current low capacity utilisation which in turn means declining profitability, driven primarily by the acquisition of new technologies without adequate adaptation of business planning to accommodate their higher capacities

This Apprenticeship framework provides a structure that will ensure that training and assessment is carried out systematically and will help meet the current and future needs of the Extractives and Mineral Processing industry. Essentially, this is a sound knowledge and understanding of the complexities of the manufacturing processes, underpinned by the relevant skills and principles.

The competency outcomes described at all levels will give Apprentices a range of pertinent skills, whilst the underpinning knowledge will ensure that Apprentices understand basic and complex Extractives and Mineral Processing industry principles and processes. The mix of competencies and job knowledge will engender the notion of best practice, health and safety and innovation.

The Apprenticeship framework for Extractives and Mineral Processing Industries is designed with a changing and more competitive world in mind – it is about providing the best possible preparation for achieving skilled occupational status, for both young and older workers, within industries that are ever changing and increasingly demanding.

For more information about the Extractives and Mineral Processing Industries, please visit : [www.advice-resources.co.uk](http://www.advice-resources.co.uk) This report outlines information on careers available, new emerging jobs, transferability of skills career paths and opportunities for progression. There is information on pay scales, how to enter the industry and what qualifications are available. The report also shows trends in the industry, where there are current skills gaps and the future of the industry in terms of its green agenda and future job requirements.

## **Aims and objectives of this framework (Wales)**

The aim of this framework is to continue to meet the current skills gaps and changing skills needs of employers in the Extractives & Mineral Processing Industry by attracting new recruits from a range of diverse backgrounds and to upskill the existing workforce to ensure that they have the required skills, knowledge and experience to help businesses to remain competitive, profitable and responsive to change.

**The objectives of this framework are:**

1. To contribute to the tackling of the intermediate skills gaps in Wales, by expanding our Extractives & Mineral Processing Apprenticeship numbers to create a modern class of technicians, whilst at the same time retaining the traditional handcrafted skills. They will have transferable skills, gained as a result of both academic study and practical on-the-job experience.
2. To attract new recruits into the Extractives & Mineral Processing Industries from a range of diverse backgrounds to address current skills gaps in the industry and to increase the number of previously unrepresented groups (females, ethnic minorities and those with a disability) It also aims to meet the specific challenges of an ageing workforce.
3. To provide opportunities for existing staff in the Extractives & Mineral Processing Industries to upskill to equip them with the necessary skills and knowledge to face the many challenges facing the industry and that they can respond effectively to the changes in developing new products, new markets, technological advances and legal and environmental requirements.
4. To provide quality, sector specific skills development for those who wish to attain the highest possible standards within their chosen occupational area and provide progression opportunities to facilitate them working to their greatest potential.
5. To provide career progression into employment at higher levels within the Extractives & Mineral Processing Industries or, for those who wish to pursue additional learning, in a Further or Higher Education arena.

# Entry conditions for this framework

The selection process for all Extractives & Mineral Processing employers is likely to include an interview to ensure that potential Apprentices have selected the right framework to meet both their needs and those of the employer. This process provides an opportunity for employers and Apprentice applicants to consider, discuss and assess an individual's prior learning and experience. An employer can then identify where this may be suitable as an appropriate foundation for undertaking the selected Apprenticeship and the individual's potential to successfully complete the framework. Where appropriate, they can also use this initial interview process as a way of tailoring the programme to meet individual learning and support needs.

Apprenticeship applicants are welcomed from a range of diverse backgrounds and it is anticipated that they may have a range of differing experiences, achievements and/or qualifications. The demonstration of relevant, transferable prior learning will form an important part of any employer's Apprentice selection process. There is a possibility that much of the evidence presented for previous achievements and/or qualifications can be considered as counting towards completion of an Apprenticeship programme as acceptable forms of Accredited Prior Learning (APL) or via Credit Transfers, where this is possible.

Examples of requirements that will be considered as a suitable basis for entry to the framework include:

- Previous work experience or employment, supported by a portfolio of evidence or
- Voluntary or community based work or
  
- Proof of completion of non accredited courses or
- Achievement of Awards, Certificates or Diplomas in a related industry such as Manufacturing, Engineering, Construction or Creative industries or
- Achievement of a 14-19 Diploma in Manufacturing & Product Design or Construction & the Built Environment or
- Welsh Baccalaureate - Foundation, Intermediate or Advanced Diploma or
- GCSEs in English, Maths and Science

Literacy and numeracy skills are highly desirable and this Extractives & Mineral Processing Apprenticeship framework does facilitate the development of these skills and learning support can be tailored to provide Apprentices with the individual assistance they require. Employers are especially interested in applicants who can demonstrate a positive, "can do" attitude with a willingness to work hard and develop new skills and knowledge.

Work in the Extractives & Mineral Processing industries varies greatly according to the employer's business. Many job roles require manual skills, lifting and handling heavy



equipment (although most workplaces have lifting devices) so physical fitness is important.

Apprentices should be aware that, for many of the job roles within Extractives & Mineral Processing operations they may be required to work in a production based environment or outdoors, in all weathers. The range of job roles available is very varied and ranges from those requiring very traditional skills to ones which are controlled and monitored by sophisticated, cutting edge technology systems, involving both basic and complex manufacturing processes. Overtime, shift work and weekend working may be required by some employers.

## Level 2

Title for this framework at level 2

# Foundation Apprenticeship in Extractives and Mineral Processing

### Pathways for this framework at level 2

- Pathway 1: Mining Operations
- Pathway 2: Fixed Plant Operations
- Pathway 3: Mobile Plant Operations
- Pathway 4: Extractives Drill Rig Operations
- Pathway 5: Mines Rescue
- Pathway 6: Blasting Operations

## Level 2, Pathway 1: Mining Operations

### Description of this pathway

Mining Operations

**Total Credit Value = 46 or 70 (depending on which competency qualification is taken)**

### Entry requirements for this pathway in addition to the framework entry requirements

There are no additional requirements other than the general entry conditions.

Job title(s)	Job role(s)
Mining Operative	Operate mining machines that rip coal, metal and nonmetal ores, rock, stone, or sand from the mine face and load it onto conveyors or into shuttle cars
Trainee Face Worker	Carry out various mining duties under the supervision of qualified supervisor. This will include the operation of appropriate mining equipment.
Trainee Locomotive Driver	Learning to drive and operate locomotive and associated equipment under the supervision of a qualified Locomotive Driver.
Winder	Responsible for operating the winder allowing the cages to move up and down the shaft safely. The Winder is in communication at all times with the Banksman and the Onsetter. Other duties include periodical inspection of machinery.
Banksman	Responsible for loading and safely transporting men and materials up and down the shaft. Ensure the safety of those using the cage to travel to and from the mine.
Shaftsman	Responsible for periodic safety checks on rope, cage and shaft. Carrying out repairs where necessary. May be required to sling loads under the "cage". Assisting in preparing and transporting heavy and awkward loads through the shaft
Onsetter	Responsible for the safety of those travelling on the cage from the pit bottom. Responsible for loading men and materials on and off the cage. Carries out inspections
Locomotive Maintenance Operative	Carry out pre shift inspection of Loco. Maintain locomotives in good working order and be responsible for any repairs or faults reported by the driver.
FSV Driver	Drives an underground vehicle which can transport supplies. Vehicle can also be used for drilling.
Belt Maintenance Man	Ensure belts and rollers are free from obstructions. Ensure all roadways are kept clean and clear and free from any obstructions that may block or damage machinery. Inspections of belts; Install / salvage belts / spoil removal equipment; tension / de-tension belts.
Methaneborer	Operate drilling rig to ensure that any known gas horizons are located and safely extracted.
Exploration Driller	Operate drilling rig to locate the direction of the mineral seam or identify potential hazards.
Linesman	Takes measurements on mine roadways / production faces; This enables actual roadway alignment to be confirmed against planned alignment.

Mines Explosive Storeman	Ensure that correct stock levels of explosives and detonators are maintained; Appropriate methods used to monitor quality and quantities of explosives and detonators recieved/ issued / returned.
Continuous Mining Operator	Operates continous mining machine to extract minerals.
Mines Environmental Tester	Takes measurements to test the environmental conditions in the mine, reports on findings and initiates appropriate action.
Staple Pit Operative	Responsible for operating the winder engine in staple pit, periodical inspection of equipment and safe transport of personnel and materials.
Back/Cable Bolter	Stabilise the roof strata in the mining environment to ensure the safety of the operation.
Operational Support Worker	Transport materials to support operation from the shaft bottom to the required area/s.
Mechanical Scaler	Excavate and profiles tunnels in accordance with the operational plans

# Qualifications

## Competence qualifications available to this pathway

C1 - Level 2 Certificate in Mining Operations					
No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
C1a	600/0968/8	MPQC	20	104-230	N/A

C2 - Level 2 Diploma in Mining Operations					
No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
C2a	600/1268/7	MPQC	44	185-389	N/A

## Knowledge qualifications available to this pathway

K1 - Level 2 Award in An Introduction to Mining in the Extractive and Mineral Processing Industries					
No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
K1a	600/2904/3	MPQC	11	88	N/A

## Combined qualifications available to this pathway

N/A

## Relationship between competence and knowledge qualifications

K1 provides the underpinning knowledge and understanding for C1 or C2.

**COMPETENCE:** There are 2 competency qualifications available. The choice of which one a learner should achieve will depend on their job role and the most appropriate qualification will be decided by discussion with their employer. The qualifications have differing CVs as some job roles are more complex than others and require higher skills and competencies.

The occupational pathways (job roles) relevant to each of the qualifications are listed below:

### Level 2 Certificate in Mining Operations:

Candidates must complete the 2 mandatory units, in addition to all units within their chosen occupational pathway (listed below)

### Occupational Pathways available are:

- Pathway 1 - Winder
- Pathway 2 - Banksman
- Pathway 3 - Onsetter
- Pathway 4 - Locomotive Guard
- Pathway 5 - Locomotive Driver
- Pathway 6 - FSV Driver
- Pathway 7 - Belt Maintenance Man
- Pathway 8 - Dinter
- Pathway 9 - Linesman
- Pathway 10 - Explosive Mines Storeman
- Pathway 11 - Sampler
- Pathway 12 - Rope Haulage Engine Driver
- Pathway 13 - Track/Road Layer
- Pathway 14 - Continuous Miner Operator
- Pathway 15 - Environmental Testing
- Pathway 16 - Staple Pit Operative
- Pathway 17 - Rope Haulage Guard

### Level 2 Diploma in Mining Operations:

Candidates must complete the 2 mandatory units in addition to all units within their chosen occupational pathway.

**Occupational Pathways available are:**

Pathway 1 - Shaftsmen

Pathway 2 - Development

Pathway 3 - Operational Support Worker

Pathway 4 - Face Worker

Pathway 5 - Methane Borer

Pathway 6 - Exploration Driller

Pathway 7 - Mechanical Scaling

Pathway 8 - Back/Cable Bolter

**KNOWLEDGE**

To achieve this award, learners must achieve all 3 mandatory units.



# Transferable skills (Wales)

## Essential skills (Wales)

	Minimum level	Credit value
Communication	Level 1	6
Application of numbers	Level 1	6
IT	Not Required	

## Progression routes into and from this pathway

### PROGRESSION INTO THIS PATHWAY:

There are no pre-defined routes of entry into the Extractives and Mineral Processing Apprenticeship however, work based qualifications such as NVQs / SVQs / AVCEs (Vocational A' Levels) and BTEC Diplomas related to the sector careers are widely available and all provide a good basis for entry to this pathway.

The Welsh Baccalaureate, any learning undertaken as part of the Welsh 14-19 Pathways programme or any other relevant programmes, that combine academic and vocational training, are recognised routes into an Apprenticeship framework. GCSEs also provide a solid base to build on, with subjects such as Art, Science and Design and Technology all seen as useful by industry employers, along with English, Mathematics, IT and Business Studies. There is a possibility that many of these may be considered as counting towards completion of an Apprenticeship programme as acceptable forms of Accredited Prior Learning (APL) or via Credit Transfer, where this is possible.

The Foundation/Higher Diploma in Manufacturing and Product Design will provide an excellent route into the Extractives and Mineral Processing sector. In addition, the Construction and Built Environment Foundation/Higher Diploma also provides an excellent platform for individuals interested in progression into the Extractives and Mineral Processing industry.

Previous work experience in the Extractives and Mineral Processing industry, or a related discipline, is also a valuable foundation for entry into this pathway.

Many Extractives and Mineral Processing jobs, require manual skills and involve working with your hands, handling heavy equipment, so physical fitness is important. Apprentices should be

aware that, for many of the job roles within Extractives and Mineral Processing industries they will be required to work in a quarry/mining environment. The range of job roles available is very varied and ranges from those requiring traditional manual skills to ones which are controlled and monitored by sophisticated technology systems, involving both basic and complex manufacturing processes. Many job roles involve repetitive processes that require both patience and good attention to detail. Overtime, shift work and weekend working may be required by some employers and many work functions will be performed outdoors, in all conditions. Much of the work relies heavily on teamwork and good communication skills and these are highly valued by Extractives and Mineral Processing employers.

### **PROGRESSION FROM THIS PATHWAY INCLUDES:**

- Continuing to develop your craft and technical skills and experience in Extractives and Mineral Processing Occupations and striving to "be the best" in your chosen occupational route and have pride in your work.
- Participating in relevant in-house company training or external learning, where available and/or offered.
- Broadening and developing your skill base by progression into other job roles within the Extractives and Mineral Processing industry - "horizontal progression"
- Progressing into higher level jobs within the Extractives and Mineral Processing industry such as Plant Supervisor, Mines Supervisor, Senior Technician, Overseer, and Gang Foreman or into other functional areas such as research and development for production methods, quality control, marketing, sales, planning, procurement, finance or warehouse and distribution.
- Undertaking a Level 3 Apprenticeship in Extractives and Mineral Processing
- Undertaking related Construction sector qualifications, for on-site work.
- Undertaking related Engineering sector qualifications.
- Undertaking a Higher/Advanced Diploma in Manufacturing and Product Design, Construction and the Built Environment.
- Undertaking Assessor and Verifier qualifications.

Take a closer look at your career options and progression opportunities in Extractives and Mineral Processing Industries by visiting: <http://www.prospect4u.co.uk/>



# Employee rights and responsibilities

It is important that all employees understand and can demonstrate an understanding of their rights and responsibilities as an employee.

The 9 required national outcomes/standards for ERR are that an Apprentice:

1. Knows and understands the range of employer and employee statutory rights and responsibilities under Employment Law and that employment rights can be affected by other legislation as well.
2. Knows and understands the procedures and documentation in their organisation which recognise and protect their relationship with their employer.
3. Knows and understands the range of sources of information and advice available to them on their employment rights and responsibilities.
4. Knows and understands the role played by their occupation within their organisation and industry.
5. Has an informed view of the types of career pathways that are open to them.
6. Knows the types of representative bodies relevant to their industry and organisation, and their main roles and responsibilities.
7. Knows where and how to get information and advice on their industry, occupation, training and career.
8. Can describe and work within their organisation's principles and codes of practice.
9. Recognises and can form a view on issues of public concern that affect their organisation and industry.

Successful achievement of all 9 ERR national standards must be demonstrated and evidenced at the point of certification by the Assessor's completion of a verification sign off sheet confirming that all 9 ERR outcomes have been successfully achieved, demonstrated and evidenced by the Apprentice.

A copy of a suitable ERR workbook for the Extractives & Mineral Processing Industries is available to download from: [www.proskills.co.uk/qualifications/apprenticeships](http://www.proskills.co.uk/qualifications/apprenticeships) and it is recommended that this workbook is used for this framework.

If the Proskills ERR workbook is used, there is a suitable sign off sheet at the back of the

booklet which, once appropriately signed and dated, is acceptable evidence for certification purposes. Alternatively, if an alternative workbook/recording method is used then it must clearly meet all of the criteria and required outcomes as specified within the Proskills workbook. For those not using the Proskills ERR workbook, a separate ERR completion declaration form is available to download from: [www.proskills.co.uk/qualifications/apprenticeships](http://www.proskills.co.uk/qualifications/apprenticeships) and this must be completed and submitted as part of evidence for certification purposes.

**Time spent on ERR contributes towards meeting the minimum Learning Hours (LH) per year requirement for this pathway.**

*Note: If a Provider wishes to deliver and demonstrate achievement of ERR by an Apprentice's completion of an accredited QCF unit, then the following unit would be suitable:*

*Unit Title: Employment Rights and Responsibilities in the Process and Manufacturing Industries*

*Unit Ref: F/602/3940*

*Credit Value: 3*

*GLH: 18*

**NOTE: QCF units for ERR are also available from other Awarding Organisations**

## Level 2, Pathway 2: Fixed Plant Operations

### Description of this pathway

Fixed Plant Operations

**Total Credit Value = 46 or 91 or 119 or 124 (depending on which competency qualification is taken).**

### Entry requirements for this pathway in addition to the framework entry requirements

There are no additional requirements other than the general entry conditions.

Job title(s)	Job role(s)
Process Plant Operator	Produce materials to correct spec, dep on type of plant. Process materials in variety of ways: Crushing/Screening & Washing, Drying, Concrete/ Asphalt Prod'n, Density/Fluid /Chemical Separation, Forming, Heat Treatment, Splitting/ Shaping & Packaging - under supervision of experienced staff.

# Qualifications

## Competence qualifications available to this pathway

### C1 - Level 2 NVQ Certificate in Processing Operations for the Extractive and Minerals Processing Industries

No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
C1a	501/1335/5	MPQC	18	65	N/A

### C2 - Level 2 NVQ Diploma in Standard Processing Operations for the Extractive and Minerals Processing Industries

No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
C2a	501/1334/3	MPQC	63	363-511	N/A

### C3 - Level 2 NVQ Diploma in Standard Processing Operations for the Extractive and Minerals Processing Industries

No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
C3a	501/1275/2	PAA\VQSET	63	363	N/A



## Competence qualifications available to this pathway (cont.)

C4 - Level 2 Diploma in Asphalt Production in the Extractive and Mineral Processing Industry					
No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
C4a	501/0743/4	MPQC	96	433-441	N/A

C5 - Level 2 Diploma in Ready Mixed Concrete Production					
No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
C5a	600/1106/3	MPQC	91	414-426	N/A

## Knowledge qualifications available to this pathway

K1 - Level 2 Award in an Introduction to Mineral Processing in the Extractive and Minerals Processing Industries					
No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
K1a	600/2903/1	MPQC	12	88	N/A

## Combined qualifications available to this pathway

N/A

## Relationship between competence and knowledge qualifications

K1 provides the underpinning knowledge and understanding for C1 or C2 or C3 or C4 or C5

**COMPETENCE:** There are a number of different competency qualifications available. The choice of which one a learner should achieve will depend on their job role and the plant which they will be operating. The most appropriate qualification will be decided by discussion with their employer. The qualifications have differing CVs as certain job roles and plant operations are much more complex than others and require higher skills and competencies to be achieved.

Apprentices involved in Asphalt Production or Ready Mixed Concrete Production should undertake the appropriate Diploma, as listed below (C4 or C5). Both of these are very specialised and complex operations with many integrated processes hence the higher CV of the qualification.

### **C1: Level 2 NVQ Certificate in Processing Operations for the Extractive and Minerals Processing Industries:**

To achieve this qualification candidates must complete all the mandatory units in Group A to achieve 18 credits.

### **C2: Level 2 NVQ Diploma in Standard Processing Operations for the Extractive and Minerals Processing Industries:**

To achieve this qualification candidates must complete all 5 mandatory units in Group A totalling 63 credits.

### **C3: Level 2 NVQ Diploma in Standard Processing Operations for the Extractive and Minerals Processing Industries:**

To achieve this qualification candidates must achieve 63 Credits from 5 Mandatory Units.

### **C4: Level 2 Diploma in Asphalt Production in the Extractive and Mineral Processing Industry :**

This qualification has 2 Pathways. All mandatory units in 'A' must be completed by all learners and in addition any units specified in their specific pathway: Pathway 1: Batch Plant Operations or Pathway 2: Drum Mix Operations.

## **C5: Level 2 Diploma in Ready Mixed Concrete Production:**

Candidates must undertake all mandatory units. For sites with Dry Batch facilities only an additional unit from Pathway 1 **Dry Batch** must be completed and for sites with Dry Batch and Wet Batch facilities and additional unit from Pathway 2 **Dry & Wet Batch** must be completed.

### **KNOWLEDGE:**

There is only 1 knowledge qualification available, which provides the required underpinning knowledge and understanding for all of the competency qualifications. To achieve this award, learners must achieve all 3 mandatory units.

# Transferable skills (Wales)

## Essential skills (Wales)

	Minimum level	Credit value
Communication	Level 1	6
Application of numbers	Level 1	6
IT	Not Required	

## Progression routes into and from this pathway

### PROGRESSION INTO THIS PATHWAY:

There are no pre-defined routes of entry into the Extractives and Mineral Processing Apprenticeship however, work based qualifications such as NVQs / SVQs / AVCEs (Vocational A' Levels) and BTEC Diplomas related to the sector careers are widely available and all provide a good basis for entry to this pathway.

The Welsh Baccalaureate, any learning undertaken as part of the Welsh 14-19 Pathways programme or any other relevant programmes, that combine academic and vocational training, are recognised routes into an Apprenticeship framework. GCSEs also provide a solid base to build on, with subjects such as Art, Science and Design and Technology all seen as useful by industry employers, along with English, Mathematics, IT and Business Studies. There is a possibility that many of these may be considered as counting towards completion of an Apprenticeship programme as acceptable forms of Accredited Prior Learning (APL) or via Credit Transfer, where this is possible.

The Foundation/Higher Diploma in Manufacturing and Product Design will provide an excellent route into the Extractives and Mineral Processing sector. In addition, the Construction and Built Environment Foundation/Higher Diploma also provides an excellent platform for individuals interested in progression into the Extractives and Mineral Processing industry.

Previous work experience in the Extractives and Mineral Processing industry, or a related discipline, is also a valuable foundation for entry into this pathway.

Many Extractives and Mineral Processing jobs, require manual skills and involve working with your hands, handling heavy equipment, so physical fitness is important. Apprentices should be aware that, for many of the job roles within Extractives and Mineral Processing industries they will be required to work in a quarry/mining environment. The range of job roles available is

very varied and ranges from those requiring traditional manual skills to ones which are controlled and monitored by sophisticated technology systems, involving both basic and complex manufacturing processes. Many job roles involve repetitive processes that require both patience and good attention to detail. Overtime, shift work and weekend working may be required by some employers and many work functions will be performed outdoors, in all conditions. Much of the work relies heavily on teamwork and good communication skills and these are highly valued by Extractives and Mineral Processing employers.

### **PROGRESSION FROM THIS PATHWAY INCLUDES:**

- Continuing to develop your craft and technical skills and experience in Extractives and Mineral Processing Occupations and striving to "be the best" in your chosen occupational route and have pride in your work.
- Participating in relevant in-house company training or external learning, where available and/or offered.
- Broadening and developing your skill base by progression into other job roles within the Extractives and Mineral Processing industry - "horizontal progression"
- Progressing into higher level jobs within the Extractives and Mineral Processing industry such as Plant Supervisor, Mines Supervisor, Senior Technician, Overseer, and Gang Foreman or into other functional areas such as research and development for production methods, quality control, marketing, sales, planning, procurement, finance or warehouse and distribution.
- Undertaking a Level 3 Apprenticeship in Extractives and Mineral Processing.
- Undertaking related Construction sector qualifications, for on-site work.
- Undertaking related Engineering sector qualifications.
- Undertaking a Higher/Advanced Diploma in Manufacturing and Product Design, Construction and the Built Environment.
- Undertaking Assessor and Verifier qualifications.

Take a closer look at your career options and progression opportunities in Extractives and Mineral Processing Industries by visiting: <http://www.prospect4u.co.uk/>

# Employee rights and responsibilities

It is important that all employees understand and can demonstrate an understanding of their rights and responsibilities as an employee.

**The 9 required national outcomes/standards for ERR are that an Apprentice:**

1. Knows and understands the range of employer and employee statutory rights and responsibilities under Employment Law and that employment rights can be affected by other legislation as well.
2. Knows and understands the procedures and documentation in their organisation which recognise and protect their relationship with their employer.
3. Knows and understands the range of sources of information and advice available to them on their employment rights and responsibilities.
4. Knows and understands the role played by their occupation within their organisation and industry.
5. Has an informed view of the types of career pathways that are open to them.
6. Knows the types of representative bodies relevant to their industry and organisation, and their main roles and responsibilities.
7. Knows where and how to get information and advice on their industry, occupation, training and career.
8. Can describe and work within their organisation's principles and codes of practice.
9. Recognises and can form a view on issues of public concern that affect their organisation and industry.

Successful achievement of all 9 ERR national standards must be demonstrated and evidenced at the point of certification by the Assessor's completion of a verification sign off sheet confirming that all 9 ERR outcomes have been successfully achieved, demonstrated and evidenced by the Apprentice.

A copy of a suitable ERR workbook for the Extractives & Mineral Processing Industries is available to download from: [www.proskills.co.uk/qualifications/apprenticeships](http://www.proskills.co.uk/qualifications/apprenticeships) and it is recommended that this workbook is used for this framework.

If the Proskills ERR workbook is used, there is a suitable sign off sheet at the back of the

booklet which, once appropriately signed and dated, is acceptable evidence for certification purposes. Alternatively, if an alternative workbook/recording method is used then it must clearly meet all of the criteria and required outcomes as specified within the Proskills workbook. For those not using the Proskills ERR workbook, a separate ERR completion declaration form is available to download from: [www.proskills.co.uk/qualifications/apprenticeships](http://www.proskills.co.uk/qualifications/apprenticeships) and this must be completed and submitted as part of evidence for certification purposes.

**Time spent on ERR contributes towards meeting the minimum Learning Hours (LH) per year requirement for this pathway.**

Note: If a Provider wishes to deliver and demonstrate achievement of ERR by an Apprentice's completion of an accredited QCF unit, then the following unit would be suitable:

Unit Title: Employment Rights and Responsibilities in the Process and Manufacturing Industries

Unit Ref: F/602/3940

Credit Value: 3

GLH: 18

**NOTE: QCF units for ERR are also available from other Awarding Organisations**

## Level 2, Pathway 3: Mobile Plant Operations

### Description of this pathway

Mobile Plant Operations

**Total Credit Value ranges from 52 - 125 depending on which of the competency qualifications is taken.**

### Entry requirements for this pathway in addition to the framework entry requirements

There are no additional requirements other than the general entry conditions.



Job title(s)	Job role(s)
Mobile Plant Operator	Operating mobile plant around extractives sites for loading, transfer and stocking out of aggregates. The plant operated will vary depending on the nature of each business. For example it could be a loading shovel, dumper, fork lift truck, bulldozer or specialist earth moving equipment.

# Qualifications

## Competence qualifications available to this pathway

C1 - Level 2 NVQ Certificate in Plant Operations (Extractives- Accessing Plant)					
No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
C1a	600/0129/X	MPQC	24	98	N/A

  

C2 - Level 2 NVQ Certificate in Plant Operations (Extractives - Compacting Plant)					
No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
C2a	600/0131/8	MPQC	28	111	N/A

  

C3 - Level 2 NVQ Certificate in Plant Operations (Extractives - Extracting Plant)					
No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
C3a	600/0132/X	MPQC	28	111	N/A

## Competence qualifications available to this pathway (cont.)

C4 - Level 2 NVQ Certificate in Plant Operations (Extractives - Fork Lift Trucks)					
No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
C4a	600/0134/3	MPQC	28	111	N/A

  

C5 - Level 2 NVQ Certificate in Plant Operations (Extractives - Transporting Loads Plant)					
No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
C5a	600/0036/3	MPQC	24	98	N/A

  

C6 - Level 2 NVQ Diploma in Plant Operations (Extractives - Compacting Plant)					
No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
C6a	600/0037/5	MPQC	37	141	N/A

  

C7 - Level 2 NVQ Diploma in Plant Operations (Extractives - Constructing and Forming Plant)					
No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
C7a	600/0038/7	MPQC	82	291	N/A

## Competence qualifications available to this pathway (cont.)

C8 - Level 2 NVQ Certificate in Plant Operations (Extractives - Banking Operations)					
No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
C8a	600/0130/6	MPQC	16	66	N/A

  

C9 - Level 2 NVQ Certificate in Plant Operations (Extractives - Cranes and Specialist Lifting Plant)					
No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
C9a	600/0035/1	MPQC	30	158-375	N/A

  

C10 - Level 2 NVQ Diploma in Plant Operations (Extractives - Cranes and Specialist Lifting Plant)					
No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
C10a	600/0039/9	MPQC	42	158	N/A

  

C11 - Level 2 NVQ Diploma in Plant Operations (Extractives - Excavating Plant)					
No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
C11a	600/0040/5	MPQC	97	341	N/A

## Competence qualifications available to this pathway (cont.)

C12 - Level 2 NVQ Diploma in Plant Operations (Extractives - Extracting Plant)					
No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
C12a	600/0042/9	MPQC	38	145	N/A

  

C13 - Level 2 NVQ Diploma in Plant Operations (Extractives - Fork Lift Trucks)					
No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
C13a	600/0043/0	MPQC	37	141	N/A

  

C14 - Level 2 NVQ Diploma in Plant Operations (Extractives - Laying and Distributing Plant)					
No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
C14a	600/0135/5	MPQC	52	191	N/A

  

C15 - Level 2 NVQ Diploma in Plant Operations (Extractives - Transporting Loads Plant)					
No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
C15a	600/0133/1	MPQC	42	158	N/A

## Knowledge qualifications available to this pathway

K1 - Level 2 Award in An Introduction to Plant Operations in the Extractive and Minerals Processing Industries					
No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
K1a	600/2905/5	MPQC	12	88	N/A

## Combined qualifications available to this pathway

N/A

## Relationship between competence and knowledge qualifications

K1 provides the underpinning knowledge and understanding for C1 - C15, inclusive.

**COMPETENCE:** There are a number of different competency qualifications available. The choice of which one a learner should achieve will depend on their job role and the plant which they will be operating. The most appropriate qualification will be decided by discussion with their employer. The qualifications have differing CVs as certain job roles and plant operations are much more complex than others and require higher skills and competencies to be achieved.

NB: Candidates have to achieve **one** of the competence qualifications C1-C15

- C1: Level 2 NVQ Certificate in Plant Operations (Extractives- Accessing Plant)**
- C2: Level 2 NVQ Certificate in Plant Operations (Extractives - Compacting Plant)**
- C3: Level 2 NVQ Certificate in Plant Operations (Extractives - Extracting Plant)**
- C4: Level 2 NVQ Certificate in Plant Operations (Extractives - Fork Lift Trucks)**
- C5: Level 2 NVQ Certificate in Plant Operations (Extractives - Transporting Loads)**
- C9: Level 2 NVQ Certificate in Plant Operations (Extractives - Cranes and Specialist Lifting Plant)**
- C10:Level 2 NVQ Diploma in Plant Operations (Extractives - Cranes and Specialist Lifting Plant)**
- C12:Level 2 NVQ Diploma in Plant Operations (Extractives - Extracting Plant)**

*For all of the above qualifications, Candidates must complete all mandatory units from group A plus at least one unit from group B.*

- C6: Level 2 NVQ Diploma in Plant Operations (Extractives - Compacting Plant)**
- C7: Level 2 NVQ Diploma in Plant Operations (Extractives - Constructing and Forming Plant)**
- C8: Level 2 NVQ Certificate in Plant Operations (Extractives - Banking Operations)**
- C11:Level 2 NVQ Diploma in Plant Operations (Extractives - Excavating Plant)**
- C13:Level 2 NVQ Diploma in Plant Operations (Extractives - Fork Lift Trucks)**
- C14:Level 2 NVQ Diploma in Plant Operations (Extractives - Laying and Distributing Plant)**
- C15:Level 2 NVQ Diploma in Plant Operations (Extractives - Transporting Loads Plant)**

*For all of the above qualifications, Candidates must complete all the mandatory units.*

**KNOWLEDGE:**

There is only 1 knowledge qualification available, which provides the required underpinning knowledge and understanding for all of the competency qualifications.

To achieve this award, learners must achieve all 3 mandatory units.



# Transferable skills (Wales)

## Essential skills (Wales)

	Minimum level	Credit value
Communication	Level 1	6
Application of numbers	Level 1	6
IT	Not Required	

## Progression routes into and from this pathway

### PROGRESSION INTO THIS PATHWAY:

There are no pre-defined routes of entry into the Extractives and Mineral Processing Apprenticeship however, work based qualifications such as NVQs / SVQs / AVCEs (Vocational A' Levels) and BTEC Diplomas related to the sector careers are widely available and all provide a good basis for entry to this pathway.

The Welsh Baccalaureate, any learning undertaken as part of the Welsh 14-19 Pathways programme or any other relevant programmes, that combine academic and vocational training, are recognised routes into an Apprenticeship framework. GCSEs also provide a solid base to build on, with subjects such as Art, Science and Design and Technology all seen as useful by industry employers, along with English, Mathematics, IT and Business Studies. There is a possibility that many of these may be considered as counting towards completion of an Apprenticeship programme as acceptable forms of Accredited Prior Learning (APL) or via Credit Transfer, where this is possible.

The Foundation/Higher Diploma in Manufacturing and Product Design will provide an excellent route into the Extractives and Mineral Processing sector. In addition, the Construction and Built Environment Foundation/Higher Diploma also provides an excellent platform for individuals interested in progression into the Extractives and Mineral Processing industry.

Previous work experience in the Extractives and Mineral Processing industry, or a related discipline, is also a valuable foundation for entry into this pathway.

Many Extractives and Mineral Processing jobs, require manual skills and involve working with your hands, handling heavy equipment, so physical fitness is important. Apprentices should be aware that, for many of the job roles within Extractives and Mineral Processing industries they will be required to work in a quarry/mining environment. The range of job roles available is

very varied and ranges from those requiring traditional manual skills to ones which are controlled and monitored by sophisticated technology systems, involving both basic and complex manufacturing processes. Many job roles involve repetitive processes that require both patience and good attention to detail. Overtime, shift work and weekend working may be required by some employers and many work functions will be performed outdoors, in all conditions. Much of the work relies heavily on teamwork and good communication skills and these are highly valued by Extractives and Mineral Processing employers.

### **PROGRESSION FROM THIS PATHWAY INCLUDES:**

- Continuing to develop your craft and technical skills and experience in Extractives and Mineral Processing Occupations and striving to "be the best" in your chosen occupational route and have pride in your work.
- Participating in relevant in-house company training or external learning, where available and/or offered.
- Broadening and developing your skill base by progression into other job roles within the Extractives and Mineral Processing industry - "horizontal progression"
- Progressing into higher level jobs within the Extractives and Mineral Processing industry such as Plant Supervisor, Mines Supervisor, Senior Technician, Overseer, and Gang Foreman or into other functional areas such as research and development for production methods, quality control, marketing, sales, planning, procurement, finance or warehouse and distribution.
- Undertaking a Level 3 Apprenticeship in Extractives and Mineral Processing
- Undertaking related Construction sector qualifications, for on-site work.
- Undertaking related Engineering sector qualifications.
- Undertaking a Higher/Advanced Diploma in Manufacturing and Product Design, Construction and the Built Environment.
- Undertaking Assessor and Verifier qualifications.

Take a closer look at your career options and progression opportunities in Extractives and Mineral Processing Industries by visiting: <http://www.prospect4u.co.uk/>

# Employee rights and responsibilities

It is important that all employees understand and can demonstrate an understanding of their rights and responsibilities as an employee.

**The 9 required national outcomes/standards for ERR are that an Apprentice:**

1. Knows and understands the range of employer and employee statutory rights and responsibilities under Employment Law and that employment rights can be affected by other legislation as well.
2. Knows and understands the procedures and documentation in their organisation which recognise and protect their relationship with their employer.
3. Knows and understands the range of sources of information and advice available to them on their employment rights and responsibilities.
4. Knows and understands the role played by their occupation within their organisation and industry.
5. Has an informed view of the types of career pathways that are open to them.
6. Knows the types of representative bodies relevant to their industry and organisation, and their main roles and responsibilities.
7. Knows where and how to get information and advice on their industry, occupation, training and career.
8. Can describe and work within their organisation's principles and codes of practice.
9. Recognises and can form a view on issues of public concern that affect their organisation and industry.

Successful achievement of all 9 ERR national standards must be demonstrated and evidenced at the point of certification by the Assessor's completion of a verification sign off sheet confirming that all 9 ERR outcomes have been successfully achieved, demonstrated and evidenced by the Apprentice.

A copy of a suitable ERR workbook for the Extractives & Mineral Processing Industries is available to download from: [www.proskills.co.uk/qualifications/apprenticeships](http://www.proskills.co.uk/qualifications/apprenticeships) and it is recommended that this workbook is used for this framework.

If the Proskills ERR workbook is used, there is a suitable sign off sheet at the back of the

booklet which, once appropriately signed and dated, is acceptable evidence for certification purposes. Alternatively, if an alternative workbook/recording method is used then it must clearly meet all of the criteria and required outcomes as specified within the Proskills workbook. For those not using the Proskills ERR workbook, a separate ERR completion declaration form is available to download from: [www.proskills.co.uk/qualifications/apprenticeships](http://www.proskills.co.uk/qualifications/apprenticeships) and this must be completed and submitted as part of evidence for certification purposes.

**Time spent on ERR contributes towards meeting the minimum Learning Hours (LH) per year requirement for this pathway.**

Note: If a Provider wishes to deliver and demonstrate achievement of ERR by an Apprentice's completion of an accredited QCF unit, then the following unit would be suitable:

Unit Title: Employment Rights and Responsibilities in the Process and Manufacturing Industries

Unit Ref: F/602/3940

Credit Value: 3

GLH: 18

**NOTE: QCF units for ERR are also available from other Awarding Organisations**

## Level 2, Pathway 4: Extractives Drill Rig Operations

### Description of this pathway

Extractives Drill Rig Operations

**Total Credit Value = 70**

### Entry requirements for this pathway in addition to the framework entry requirements

There are no additional requirements other than the general entry conditions.

<b>Job title(s)</b>	<b>Job role(s)</b>
Extractives Drill Rig Operator	Drilling quarry faces to the blast design to produce the correct blast pattern.

# Qualifications

## Competence qualifications available to this pathway

C1 - Level 2 NVQ Diploma in Drilling Operations for the Extractive and Minerals Processing Industries					
No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
C1a	501/1327/6	MPQC	44	339	N/A

## Knowledge qualifications available to this pathway

K1 - Level 2 Award in An Introduction to Drilling Operations in the Extractive and Minerals Processing Industries					
No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
K1a	600/2902/X	MPQC	11	88	N/A

## Combined qualifications available to this pathway

N/A

## Relationship between competence and knowledge qualifications

K1 provides the underpinning knowledge and understanding for C1.

### **COMPETENCE:**

To achieve this qualification candidates must complete all 5 of the mandatory units in Group plus one unit from Group B.

### **KNOWLEDGE:**

To achieve this award, learners must achieve all 3 mandatory units.



# Transferable skills (Wales)

## Essential skills (Wales)

	Minimum level	Credit value
Communication	Level 1	6
Application of numbers	Level 1	6
IT	Not Required	

## Progression routes into and from this pathway

### PROGRESSION INTO THIS PATHWAY:

There are no pre-defined routes of entry into the Extractives and Mineral Processing Apprenticeship however, work based qualifications such as NVQs / SVQs / AVCEs (Vocational A' Levels) and BTEC Diplomas related to the sector careers are widely available and all provide a good basis for entry to this pathway.

The Welsh Baccalaureate, any learning undertaken as part of the Welsh 14-19 Pathways programme or any other relevant programmes, that combine academic and vocational training, are recognised routes into an Apprenticeship framework. GCSEs also provide a solid base to build on, with subjects such as Art, Science and Design and Technology all seen as useful by industry employers, along with English, Mathematics, IT and Business Studies. There is a possibility that many of these may be considered as counting towards completion of an Apprenticeship programme as acceptable forms of Accredited Prior Learning (APL) or via Credit Transfer, where this is possible.

The Foundation/Higher Diploma in Manufacturing and Product Design will provide an excellent route into the Extractives and Mineral Processing sector. In addition, the Construction and Built Environment Foundation/Higher Diploma also provides an excellent platform for individuals interested in progression into the Extractives and Mineral Processing industry.

Previous work experience in the Extractives and Mineral Processing industry, or a related discipline, is also a valuable foundation for entry into this pathway.

Many Extractives and Mineral Processing jobs, require manual skills and involve working with your hands, handling heavy equipment, so physical fitness is important. Apprentices should be aware that, for many of the job roles within Extractives and Mineral Processing industries they will be required to work in a quarry/mining environment. The range of job roles available is

very varied and ranges from those requiring traditional manual skills to ones which are controlled and monitored by sophisticated technology systems, involving both basic and complex manufacturing processes. Many job roles involve repetitive processes that require both patience and good attention to detail. Overtime, shift work and weekend working may be required by some employers and many work functions will be performed outdoors, in all conditions. Much of the work relies heavily on teamwork and good communication skills and these are highly valued by Extractives and Mineral Processing employers.

#### **PROGRESSION FROM THIS PATHWAY INCLUDES:**

- Continuing to develop your craft and technical skills and experience in Extractives and Mineral Processing Occupations and striving to "be the best" in your chosen occupational route and have pride in your work.
- Participating in relevant in-house company training or external learning, where available and/or offered.
- Broadening and developing your skill base by progression into other job roles within the Extractives and Mineral Processing industry - "horizontal progression"
- Progressing into higher level jobs within the Extractives and Mineral Processing industry such as Plant Supervisor, Mines Supervisor, Senior Technician, Overseer, and Gang Foreman or into other functional areas such as research and development for production methods, quality control, marketing, sales, planning, procurement, finance or warehouse and distribution.
- Undertaking a Level 3 Apprenticeship in Extractives and Mineral Processing
- Undertaking related Construction sector qualifications, for on-site work.
- Undertaking related Engineering sector qualifications.
- Undertaking a Higher/Advanced Diploma in Manufacturing and Product Design, Construction and the Built Environment.
- Undertaking Assessor and Verifier qualifications.

Take a closer look at your career options and progression opportunities in Extractives and Mineral Processing Industries by visiting: <http://www.prospect4u.co.uk>

# Employee rights and responsibilities

It is important that all employees understand and can demonstrate an understanding of their rights and responsibilities as an employee.

**The 9 required national outcomes/standards for ERR are that an Apprentice:**

1. Knows and understands the range of employer and employee statutory rights and responsibilities under Employment Law and that employment rights can be affected by other legislation as well.
2. Knows and understands the procedures and documentation in their organisation which recognise and protect their relationship with their employer.
3. Knows and understands the range of sources of information and advice available to them on their employment rights and responsibilities.
4. Knows and understands the role played by their occupation within their organisation and industry.
5. Has an informed view of the types of career pathways that are open to them.
6. Knows the types of representative bodies relevant to their industry and organisation, and their main roles and responsibilities.
7. Knows where and how to get information and advice on their industry, occupation, training and career.
8. Can describe and work within their organisation's principles and codes of practice.
9. Recognises and can form a view on issues of public concern that affect their organisation and industry.

Successful achievement of all 9 ERR national standards must be demonstrated and evidenced at the point of certification by the Assessor's completion of a verification sign off sheet confirming that all 9 ERR outcomes have been successfully achieved, demonstrated and evidenced by the Apprentice.

A copy of a suitable ERR workbook for the Extractives & Mineral Processing Industries is available to download from: [www.proskills.co.uk/qualifications/apprenticeships](http://www.proskills.co.uk/qualifications/apprenticeships) and it is recommended that this workbook is used for this framework.

If the Proskills ERR workbook is used, there is a suitable sign off sheet at the back of the

booklet which, once appropriately signed and dated, is acceptable evidence for certification purposes. Alternatively, if an alternative workbook/recording method is used then it must clearly meet all of the criteria and required outcomes as specified within the Proskills workbook. For those not using the Proskills ERR workbook, a separate ERR completion declaration form is available to download from: [www.proskills.co.uk/qualifications/apprenticeships](http://www.proskills.co.uk/qualifications/apprenticeships) and this must be completed and submitted as part of evidence for certification purposes.

**Time spent on ERR contributes towards meeting the minimum Learning Hours (LH) per year requirement for this pathway.**

Note: If a Provider wishes to deliver and demonstrate achievement of ERR by an Apprentice's completion of an accredited QCF unit, then the following unit would be suitable:

Unit Title: Employment Rights and Responsibilities in the Process and Manufacturing Industries

Unit Ref: F/602/3940

Credit Value: 3

GLH: 18

**NOTE: QCF units for ERR are also available from other Awarding Organisations**

## Level 2, Pathway 5: Mines Rescue

### Description of this pathway

Mines Rescue

**Total Credit Value = 65**

### Entry requirements for this pathway in addition to the framework entry requirements

There are no additional requirements other than the general entry conditions.

<b>Job title(s)</b>	<b>Job role(s)</b>
Mine Rescue Worker	To take part in rescue operations in the mining environment, to safely retrieve personnel from dangerous situations and give first aid treatment, to transport casualties in a safe manner.

# Qualifications

## Competence qualifications available to this pathway

C1 - Level 2 Diploma for Mine Rescue Workers					
No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
C1a	501/1343/4	MPQC	39	209	N/A

## Knowledge qualifications available to this pathway

K1 - Level 2 Award in An Introduction to Mining in the Extractives and Minerals Processing Industries					
No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
K1a	600/2904/3	MPQC	11	88	N/A

## Combined qualifications available to this pathway

N/A

## Relationship between competence and knowledge qualifications

K1 provides the underpinning knowledge and understanding for C1.

### **COMPETENCE:**

Learners must achieve all 6 mandatory units in this qualification.

### **KNOWLEDGE:**

To achieve this award, learners must achieve all 3 mandatory units.



# Transferable skills (Wales)

## Essential skills (Wales)

	Minimum level	Credit value
Communication	Level 1	6
Application of numbers	Level 1	6
IT	Not Required	

## Progression routes into and from this pathway

### PROGRESSION INTO THIS PATHWAY:

There are no pre-defined routes of entry into the Extractives and Mineral Processing Apprenticeship however, work based qualifications such as NVQs / SVQs / AVCEs (Vocational A' Levels) and BTEC Diplomas related to the sector careers are widely available and all provide a good basis for entry to this pathway.

The Welsh Baccalaureate, any learning undertaken as part of the Welsh 14-19 Pathways programme or any other relevant programmes, that combine academic and vocational training, are recognised routes into an Apprenticeship framework. GCSEs also provide a solid base to build on, with subjects such as Art, Science and Design and Technology all seen as useful by industry employers, along with English, Mathematics, IT and Business Studies. There is a possibility that many of these may be considered as counting towards completion of an Apprenticeship programme as acceptable forms of Accredited Prior Learning (APL) or via Credit Transfer, where this is possible.

The Foundation/Higher Diploma in Manufacturing and Product Design will provide an excellent route into the Extractives and Mineral Processing sector. In addition, the Construction and Built Environment Foundation/Higher Diploma also provides an excellent platform for individuals interested in progression into the Extractives and Mineral Processing industry.

Previous work experience in the Extractives and Mineral Processing industry, or a related discipline, is also a valuable foundation for entry into this pathway.

Many Extractives and Mineral Processing jobs, require manual skills and involve working with your hands, handling heavy equipment, so physical fitness is important. Apprentices should be aware that, for many of the job roles within Extractives and Mineral Processing industries they will be required to work in a quarry/mining environment. The range of job roles available is

very varied and ranges from those requiring traditional manual skills to ones which are controlled and monitored by sophisticated technology systems, involving both basic and complex manufacturing processes. Many job roles involve repetitive processes that require both patience and good attention to detail. Overtime, shift work and weekend working may be required by some employers and many work functions will be performed outdoors, in all conditions. Much of the work relies heavily on teamwork and good communication skills and these are highly valued by Extractives and Mineral Processing employers.

#### **PROGRESSION FROM THIS PATHWAY INCLUDES:**

- Continuing to develop your craft and technical skills and experience in Extractives and Mineral Processing Occupations and striving to "be the best" in your chosen occupational route and have pride in your work.
- Participating in relevant in-house company training or external learning, where available and/or offered.
- Broadening and developing your skill base by progression into other job roles within the Extractives and Mineral Processing industry - "horizontal progression"
- Progressing into higher level jobs within the Extractives and Mineral Processing industry such as Plant Supervisor, Mines Supervisor, Senior Technician, Overseer, and Gang Foreman or into other functional areas such as research and development for production methods, quality control, marketing, sales, planning, procurement, finance or warehouse and distribution.
- Undertaking a Level 3 Apprenticeship in Extractives and Mineral Processing
- Undertaking related Construction sector qualifications, for on-site work.
- Undertaking related Engineering sector qualifications.
- Undertaking a Higher/Advanced Diploma in Manufacturing and Product Design, Construction and the Built Environment.
- Undertaking Assessor and Verifier qualifications.

Take a closer look at your career options and progression opportunities in Extractives and Mineral Processing Industries by visiting: <http://www.prospect4u.co.uk>

# Employee rights and responsibilities

It is important that all employees understand and can demonstrate an understanding of their rights and responsibilities as an employee.

**The 9 required national outcomes/standards for ERR are that an Apprentice:**

1. Knows and understands the range of employer and employee statutory rights and responsibilities under Employment Law and that employment rights can be affected by other legislation as well.
2. Knows and understands the procedures and documentation in their organisation which recognise and protect their relationship with their employer.
3. Knows and understands the range of sources of information and advice available to them on their employment rights and responsibilities.
4. Knows and understands the role played by their occupation within their organisation and industry.
5. Has an informed view of the types of career pathways that are open to them.
6. Knows the types of representative bodies relevant to their industry and organisation, and their main roles and responsibilities.
7. Knows where and how to get information and advice on their industry, occupation, training and career.
8. Can describe and work within their organisation's principles and codes of practice.
9. Recognises and can form a view on issues of public concern that affect their organisation and industry.

Successful achievement of all 9 ERR national standards must be demonstrated and evidenced at the point of certification by the Assessor's completion of a verification sign off sheet confirming that all 9 ERR outcomes have been successfully achieved, demonstrated and evidenced by the Apprentice.

A copy of a suitable ERR workbook for the Extractives & Mineral Processing Industries is available to download from: [www.proskills.co.uk/qualifications/apprenticeships](http://www.proskills.co.uk/qualifications/apprenticeships) and it is recommended that this workbook is used for this framework.

If the Proskills ERR workbook is used, there is a suitable sign off sheet at the back of the

booklet which, once appropriately signed and dated, is acceptable evidence for certification purposes. Alternatively, if an alternative workbook/recording method is used then it must clearly meet all of the criteria and required outcomes as specified within the Proskills workbook. For those not using the Proskills ERR workbook, a separate ERR completion declaration form is available to download from: [www.proskills.co.uk/qualifications/apprenticeships](http://www.proskills.co.uk/qualifications/apprenticeships) and this must be completed and submitted as part of evidence for certification purposes.

**Time spent on ERR contributes towards meeting the minimum Learning Hours (LH) per year requirement for this pathway.**

Note: If a Provider wishes to deliver and demonstrate achievement of ERR by an Apprentice's completion of an accredited QCF unit, then the following unit would be suitable:

Unit Title: Employment Rights and Responsibilities in the Process and Manufacturing Industries

Unit Ref: F/602/3940

Credit Value: 3

GLH: 18

**NOTE: QCF units for ERR are also available from other Awarding Organisations**

## Level 2, Pathway 6: Blasting Operations

### Description of this pathway

Blasting Operations

**Total Credit Value = 40**

### Entry requirements for this pathway in addition to the framework entry requirements

There are no additional requirements other than the general entry conditions.

<b>Job title(s)</b>	<b>Job role(s)</b>
Face Profiler	Use laser scanning equipment to measure the face of the quarry to determine how it is going to be drilled. Calculation of expected yield from blast. Input of information to computerised system to create plan ready for drillers.

# Qualifications

## Competence qualifications available to this pathway

C1 - Level 2 NVQ Certificate in Face Profiling for the Extractive and Minerals Processing Industries					
No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
C1a	501/1483/9	MPQC	16	111	N/A

## Knowledge qualifications available to this pathway

K1 - Level 2 Award in An Introduction to Blasting in the Extractive and Minerals Processing Industries					
No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
K1a	600/2906/7	MPQC	12	96	N/A

## Combined qualifications available to this pathway

N/A

## Relationship between competence and knowledge qualifications

K1 provides the underpinning knowledge and understanding for C1

**COMPETENCE:** To receive this award, learners must achieve all 3 mandatory units.

**KNOWLEDGE:** To receive this award, learners must achieve all 3 mandatory units.



# Transferable skills (Wales)

## Essential skills (Wales)

	Minimum level	Credit value
Communication	Level 1	6
Application of numbers	Level 1	6
IT	Not Required	

## Progression routes into and from this pathway

### PROGRESSION INTO THIS PATHWAY:

There are no pre-defined routes of entry into the Extractives and Mineral Processing Apprenticeship however, work based qualifications such as NVQs / SVQs / AVCEs (Vocational A' Levels) and BTEC Diplomas related to the sector careers are widely available and all provide a good basis for entry to this pathway.

The Welsh Baccalaureate, any learning undertaken as part of the Welsh 14-19 Pathways programme or any other relevant programmes, that combine academic and vocational training, are recognised routes into an Apprenticeship framework. GCSEs also provide a solid base to build on, with subjects such as Art, Science and Design and Technology all seen as useful by industry employers, along with English, Mathematics, IT and Business Studies. There is a possibility that many of these may be considered as counting towards completion of an Apprenticeship programme as acceptable forms of Accredited Prior Learning (APL) or via Credit Transfer, where this is possible.

The Foundation/Higher Diploma in Manufacturing and Product Design will provide an excellent route into the Extractives and Mineral Processing sector. In addition, the Construction and Built Environment Foundation/Higher Diploma also provides an excellent platform for individuals interested in progression into the Extractives and Mineral Processing industry.

Previous work experience in the Extractives and Mineral Processing industry, or a related discipline, is also a valuable foundation for entry into this pathway. Many Extractives and Mineral Processing jobs, require manual skills and involve working with your hands, handling heavy equipment, so physical fitness is important. Apprentices should be aware that, for many of the job roles within Extractives and Mineral Processing industries they will be required to work in a quarry/mining environment. The range of job roles available is very varied and

ranges from those requiring traditional manual skills to ones which are controlled and monitored by sophisticated technology systems, involving both basic and complex manufacturing processes.

Many job roles involve repetitive processes that require both patience and good attention to detail. Overtime, shift work and weekend working may be required by some employers and many work functions will be performed outdoors, in all conditions. Much of the work relies heavily on teamwork and good communication skills and these are highly valued by Extractives and Mineral Processing employers.

### **PROGRESSION FROM THIS PATHWAY INCLUDES:**

- Continuing to develop your craft and technical skills and experience in Extractives and Mineral Processing Occupations and striving to "be the best" in your chosen occupational route and have pride in your work.
- Participating in relevant in-house company training or external learning, where available and/or offered.
- Broadening and developing your skill base by progression into other job roles within the Extractives and Mineral Processing industry - "horizontal progression"
- Progressing into higher level jobs within the Extractives and Mineral Processing industry such as Plant Supervisor, Mines Supervisor, Senior Technician, Overseer, and Gang Foreman or into other functional areas such as research and development for production methods, quality control, marketing, sales, planning, procurement, finance or warehouse and distribution.
- Undertaking a Level 3 Apprenticeship in Extractives and Mineral Processing
- Undertaking related Construction sector qualifications, for on-site work.
- Undertaking related Engineering sector qualifications.
- Undertaking a Higher/Advanced Diploma in Manufacturing and Product Design, Construction and the Built Environment.
- Undertaking Assessor and Verifier qualifications.

Take a closer look at your career options and progression opportunities in Extractives and Mineral Processing Industries by visiting: <http://www.prospect4u.co.uk>

# Employee rights and responsibilities

It is important that all employees understand and can demonstrate an understanding of their rights and responsibilities as an employee.

The 9 required national outcomes/standards for ERR are that an Apprentice:

- Knows and understands the range of employer and employee statutory rights and responsibilities under Employment Law and that employment rights can be affected by other legislation as well.
- Knows and understands the procedures and documentation in their organisation which recognise and protect their relationship with their employer.
- Knows and understands the range of sources of information and advice available to them on their employment rights and responsibilities.
- Knows and understands the role played by their occupation within their organisation and industry.
- Has an informed view of the types of career pathways that are open to them.
- Knows the types of representative bodies relevant to their industry and organisation, and their main roles and responsibilities.
- Knows where and how to get information and advice on their industry, occupation, training and career.
- Can describe and work within their organisation's principles and codes of practice.
- Recognises and can form a view on issues of public concern that affect their organisation and industry.

Successful achievement of all 9 ERR national standards must be demonstrated and evidenced at the point of certification by the Assessor's completion of a verification sign off sheet confirming that all 9 ERR outcomes have been successfully achieved, demonstrated and evidenced by the Apprentice.

A copy of a suitable ERR workbook for the Extractives & Mineral Processing Industries is available to download from: [www.proskills.co.uk/qualifications/apprenticeships](http://www.proskills.co.uk/qualifications/apprenticeships) and it is recommended that this workbook is used for this framework.

If the Proskills ERR workbook is used, there is a suitable sign off sheet at the back of the booklet which, once appropriately signed and dated, is acceptable evidence for certification purposes. Alternatively, if an alternative workbook/recording method is used then it must

clearly meet all of the criteria and required outcomes as specified within the Proskills workbook. For those not using the Proskills ERR workbook, a separate ERR completion declaration form is available to download from: [www.proskills.co.uk/qualifications/apprenticeships](http://www.proskills.co.uk/qualifications/apprenticeships) and this must be completed and submitted as part of evidence for certification purposes.

**Time spent on ERR contributes towards meeting the minimum Learning Hours (LH) per year requirement for this pathway.**

Note: If a Provider wishes to deliver and demonstrate achievement of ERR by an Apprentice's completion of an accredited QCF unit, then the following unit would be suitable:

Unit Title: Employment Rights and Responsibilities in the Process and Manufacturing Industries

Unit Ref: F/602/3940

Credit Value: 3

GLH: 18

**NOTE: QCF units for ERR are also available from other Awarding Organisations**

## Level 3

Title for this framework at level 3

# Apprenticeship in Extractives and Mineral Processing

### Pathways for this framework at level 3

- Pathway 1: Mines - Electrical
- Pathway 2: Mines - Mechanical
- Pathway 3: Mines Shotfiring
- Pathway 4: Mines Maintenance Supervision
- Pathway 5: Processing Plant Supervision
- Pathway 6: Shotfiring
- Pathway 7: Mines - Electrical - POTASH
- Pathway 8: Mines - Mechanical - POTASH

## Level 3, Pathway 1: Mines - Electrical

### Description of this pathway

Mines - Electrical

**Total Credit Value ranges from 372 - 498 (depending on which knowledge qualification is taken).**

### Entry requirements for this pathway in addition to the framework entry requirements

There are no additional requirements other than the general entry conditions.

<b>Job title(s)</b>	<b>Job role(s)</b>
Mines Electrical Technician	Assisting in maintenance of underground electrical systems, supervised by a qualified mines electrician.

# Qualifications

## Competence qualifications available to this pathway

C1 - Level 3 Diploma in Mining Electrical Operations					
No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
C1a	501/2361/0	MPQC	306	621	

## Knowledge qualifications available to this pathway

K1 - Edexcel BTEC Level 3 Diploma in Engineering					
No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
K1a	500/8154/8	Pearson Education Ltd	120	720	

K2 - EAL Level 3 Diploma in Maintenance Engineering Technology					
No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
K2a	501/1112/7	EMTA Awards Ltd	78	600	



## Knowledge qualifications available to this pathway (cont.)

K3 - Level 3 Diploma in Engineering					
No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
K3a	600/0882/9	City & Guilds	54	480	

K4 - EAL Level 3 Diploma in Engineering and Technology (Progressive)					
No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
K4a	501/1419/0	EMTA Awards Ltd	97	750	

K5 - Edexcel BTEC Level 3 Extended Diploma in Operations and Maintenance Engineering					
No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
K5a	500/7317/5	Pearson Education Ltd	180	1080	

K6 - Edexcel BTEC Level 3 Diploma in Operations and Maintenance Engineering					
No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
K6a	500/7315/1	Pearson Education Ltd	120	720	

## Knowledge qualifications available to this pathway (cont.)

K7 - Edexcel BTEC Level 3 Diploma in Mechanical Engineering (QCF)					
No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
K7a	500/7283/3	Edexcel	120	720	n/a

K8 - Edexcel BTEC Level 3 Diploma in Electrical/ Electronic Engineering (QCF)					
No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
K8a	500/8098/2	Edexcel	120	720	n/a

## Combined qualifications available to this pathway

N/A

## Relationship between competence and knowledge qualifications

K1, K2, K3, K4, K5, K6, K7 or K8 provides the underpinning knowledge and understanding for C1.

### COMPETENCE:

There are 14 units in the qualification, of which 12 are mandatory. To gain this qualification, 306 credits need to be achieved. There are also 2 additional units that apply to electrical instrumentation technical functions, but are not a mandatory part of the qualification.

**KNOWLEDGE:** There are a number of different knowledge qualifications available. The choice of which one a learner should achieve will depend on their job role, responsibilities and the plant which they will be operating.

The most appropriate qualification will be decided by discussion with their employer. The qualifications have differing CVs and GLHs as certain job roles and plant operations are much more complex than others and require higher skills and competencies to be achieved. Job roles can range from undertaking standard electrical operations to operating complex electro hydraulic control systems.

Learners must achieve **ONE** of the following knowledge qualifications:

- The K1 **Edexcel BTEC Level 3 Diploma in Engineering** consists of a **minimum** of 120 credits, of which at least 90 credits must be achieved at Level 3. The qualification includes six mandatory core units (70 credits). A further 50 credits must be selected from optional units in Group B.**OR**
- To achieve the K2 **EAL Level 3 Diploma in Maintenance Engineering Technology** qualification the learner is required to complete the 3 mandatory units (28 credits), followed by 5 optional units from group B (50 credits) to achieve a total of (78 credits). **OR**
- To achieve the K3 **C&G Level 3 Diploma in Engineering** learners need to achieve a minimum of 54 credits - 18 credits from group A, 18 credits from group B and 18 credits from one of the 7 pathways. **OR**
- To achieve the K4 **EAL Level 3 Diploma in Engineering and Technology (Progressive)** qualification the learner is required to complete the 3 mandatory units (27 credits),

followed by (7 units) from group B (70 credits) to achieve a total of 97 credits. **OR**

- The **K5 Edexcel BTEC Level 3 Extended Diploma in Operations and Maintenance Engineering** consists of four mandatory units and one mandatory unit choice, plus optional units that provide for a combined total of 180 credits for the completed qualification. A minimum of 70 credits must be chosen from optional units group A, which must include a minimum of one unit from the mandatory choice group. The remaining optional units can be taken from group A or group B. **OR**
- The **K6 Edexcel BTEC Level 3 Diploma in Operations and Maintenance Engineering** consists of four mandatory units and one mandatory unit choice, plus optional units that provide for a combined total of 120 credits for the completed qualification. A minimum of 50 credits must be chosen from optional units group A, which must include a minimum of one unit from the mandatory choice group. The remaining optional units can be taken from group A or group B.
- The **K7 Edexcel BTEC Level 3 Diploma in Mechanical Engineering** consists of five mandatory units plus optional units that provide for a combined total of 120 credits and 720 guided learning hours (GLH) for the completed qualification. A minimum of 40 credits must be chosen from optional units group A. The remaining optional units can be taken from group A or group B.
- The **K8 Edexcel BTEC Level 3 Diploma in Electrical/Electronic Engineering** consists of five mandatory units plus optional units that provide for a combined total of 120 credits and 720 guided learning hours (GLH) for the completed qualification. A minimum of 40 credits must be chosen from optional units group A. The remaining optional units can be taken from group A or group B.

# Transferable skills (Wales)

## Essential skills (Wales)

	Minimum level	Credit value
Communication	Level 2	6
Application of numbers	Level 2	6
IT	Not Required	

## Progression routes into and from this pathway

### PROGRESSION INTO THIS PATHWAY:

Work based qualifications such as NVQs / SVQs / AVCEs (Vocational A' Levels) and BTEC Diplomas related to Extractives and Mineral Processing sector careers are widely available and all provide a good basis for entry to this pathway. GCSEs and A Levels also provide a solid base to build on, with subjects such as Art, Science and Design and Technology all seen as useful by employers, along with English, Mathematics, IT and Business Studies.

Applicants who have successfully completed a Foundation Level 2 Apprenticeship in Extractives and Mineral Processing would be considered suitable for progression to an Apprenticeship at Level 3. A Foundation/Higher or Advanced Diploma in Manufacturing and Product Design will provide an excellent route into the sector. In addition, the Construction and Built Environment Diplomas also provides an excellent start for individuals interested in a career in the Extractives and Mineral Processing industry.

Some career pathways within the industry can be offered without qualifications, if a good impression is created at interview. Showing enthusiasm, good communication skills, providing proof of a mature attitude and problem solving skills can all help your chances. Many skills can be developed while you are employed if you have the right attitude. Previous work experience in a production industry, or a related discipline, is also a valuable foundation for entry into this pathway.

### PROGRESSION FROM THIS PATHWAY INCLUDE:

- Continuing to develop your technical skills and experience in Extractives and Mineral Processing and strive to "be the best" in your chosen occupational route and have pride in your work.

- Participating in relevant in-house company training or external learning, where available and/or offered.
- Broadening and developing your skill base by progression into other job roles within the Extractives and Mineral Processing industry - "horizontal progression"
- Progressing to Level 4 or 5 qualifications in either Extractives and Mineral Processing or in a related industry such as Geology or Engineering. This may also include Higher Apprenticeships.
- Undertaking a Higher/Advanced Diploma in Manufacturing and Product Design, Construction and the Built Environment or Creative and Media.
- Progressing into higher level jobs within the Extractives and Mineral Processing industry such as Plant manager , Surveyor, Deputy works manager, Shotfiring Supervisor, Health and Safety Advisor , Environmental Advisor or into other functional areas such as research and development for production methods, quality control marketing, sales, planning, procurement, finance or warehouse and distribution.
- Undertaking Assessor and Verifier qualifications.
- Undertaking further training in Management & Leadership, Lean Manufacturing or Business Improvement Techniques.
- Progressing to an industry related undergraduate programme e.g. Engineering, Science or Business Studies. **Entry may require additional training/learning.**

Take a closer look at your career options and progression opportunities in the Extractives and Mineral Processing Industry by visiting: [www.prospect4u.co.uk](http://www.prospect4u.co.uk)

### UCAS points for this pathway:

*(no information)*

# Employee rights and responsibilities

It is important that all employees understand and can demonstrate an understanding of their rights and responsibilities as an employee.

**The 9 required national outcomes/standards for ERR are that an Apprentice:**

1. Knows and understands the range of employer and employee statutory rights and responsibilities under Employment Law and that employment rights can be affected by other legislation as well.
2. Knows and understands the procedures and documentation in their organisation which recognise and protect their relationship with their employer.
3. Knows and understands the range of sources of information and advice available to them on their employment rights and responsibilities.
4. Knows and understands the role played by their occupation within their organisation and industry.
5. Has an informed view of the types of career pathways that are open to them.
6. Knows the types of representative bodies relevant to their industry and organisation, and their main roles and responsibilities.
7. Knows where and how to get information and advice on their industry, occupation, training and career.
8. Can describe and work within their organisation's principles and codes of practice.
9. Recognises and can form a view on issues of public concern that affect their organisation and industry.

Successful achievement of all 9 ERR national standards must be demonstrated and evidenced at the point of certification by the Assessor's completion of a verification sign off sheet confirming that all 9 ERR outcomes have been successfully achieved, demonstrated and evidenced by the Apprentice.

A copy of a suitable ERR workbook for the Extractives & Mineral Processing Industries is available to download from: [www.proskills.co.uk/qualifications/apprenticeships](http://www.proskills.co.uk/qualifications/apprenticeships) and it is recommended that this workbook is used for this framework.

If the Proskills ERR workbook is used, there is a suitable sign off sheet at the back of the booklet which, once appropriately signed and dated, is acceptable evidence for certification

purposes. Alternatively, if an alternative workbook/recording method is used then it must clearly meet all of the criteria and required outcomes as specified within the Proskills workbook. For those not using the Proskills ERR workbook, a separate ERR completion declaration form is available to download from: [www.proskills.co.uk/qualifications/apprenticeships](http://www.proskills.co.uk/qualifications/apprenticeships) and this must be completed and submitted as part of evidence for certification purposes.

**Time spent on ERR contributes towards meeting the minimum Learning Hours (LH) per year requirement for this pathway.**

*Note: If a Provider wishes to deliver and demonstrate achievement of ERR by an Apprentice's completion of an accredited QCF unit, then the following unit would be suitable:*

*Unit Title: Employment Rights and Responsibilities in the Process and Manufacturing Industries*

*Unit Ref: F/602/3940*

*Credit Value: 3*

*GLH: 18*

**NOTE: QCF units for ERR are also available from other Awarding Organisations**



## Level 3, Pathway 2: Mines - Mechanical

### Description of this pathway

Mines - Mechanical

**Total Credit Value ranges from 381 - 507 depending on which knowledge qualification is taken.**

### Entry requirements for this pathway in addition to the framework entry requirements

There are no additional requirements other than the general entry conditions.

<b>Job title(s)</b>	<b>Job role(s)</b>
Mines Mechanical Technician	Assisting in maintenance of underground machinery, supervised by a qualified mechanical fitter

# Qualifications

## Competence qualifications available to this pathway

C1 - Level 3 Diploma in Mining Mechanical Operations					
No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
C1a	501/2295/2	MPQC	315	678	

## Knowledge qualifications available to this pathway

K1 - Edexcel BTEC Level 3 Diploma in Engineering					
No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
K1a	500/8154/8	Pearson Education Ltd	120	720	

K2 - EAL Level 3 Diploma in Maintenance Engineering Technology					
No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
K2a	501/1112/7	EMTA Awards Ltd	78	600	

## Knowledge qualifications available to this pathway (cont.)

K3 - Level 3 Diploma in Engineering					
No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
K3a	600/0882/9	City & Guilds	54	480	

K4 - EAL Level 3 Diploma in Engineering and Technology (Progressive)					
No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
K4a	501/1419/0	EMTA Awards Ltd	97	750	

K5 - Edexcel BTEC Level 3 Extended Diploma in Operations and Maintenance Engineering					
No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
K5a	500/7317/5	Pearson Education Ltd	180	1080	

K6 - Edexcel BTEC Level 3 Diploma in Operations and Maintenance Engineering					
No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
K6a	500/7315/1	Pearson Education Ltd	120	720	

## Knowledge qualifications available to this pathway (cont.)

K7 - Edexcel BTEC Level 3 Diploma in Mechanical Engineering (QCF)					
No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
K7a	500/7283/3	Edexcel	120	720	n/a

K8 - Edexcel BTEC Level 3 Diploma in Electrical/ Electronic Engineering (QCF)					
No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
K8a	500/8098/2	Edexcel	120	720	n/a

## Combined qualifications available to this pathway

N/A

## Relationship between competence and knowledge qualifications

K1, K2, K3, K4, K5, K6, K7 or K8 provides the underpinning knowledge and understanding for C1.

### COMPETENCE:

There are 12 units in the qualification and all are mandatory (totalling 315 credits)

**KNOWLEDGE:** There are a number of different knowledge qualifications available. The choice of which one a learner should achieve will depend on their job role, responsibilities and the plant which they will be operating. The most appropriate qualification will be decided by discussion with their employer. The qualifications have differing CVs and GLHs as certain job roles and operations are much more complex than others and require higher skills and competencies to be achieved. Job roles can range from undertaking standard mechanical operations to operating complex computer controlled engineering systems.

Learners must achieve **ONE** of the following knowledge qualifications:

- The K1 **Edexcel BTEC Level 3 Diploma in Engineering** consists of a minimum of 120 credits, of which at least 90 credits must be achieved at Level 3. The qualification includes six mandatory core units (70 credits). A further 50 credits must be selected from optional units in Group B. **OR**
- To achieve the K2 **EAL Level 3 Diploma in Maintenance Engineering Technology** qualification the learner is required to complete the 3 mandatory units (28 credits), followed by 5 optional units from group B (50 credits) to achieve a total of (78 credits). **OR**
- To achieve the K3 **C&G Level 3 Diploma in Engineering** learners need to achieve a minimum of 54 credits - 18 credits from group A, 18 credits from group B and 18 credits from one of the 7 pathways. **OR**
- To achieve the K4 **EAL Level 3 Diploma in Engineering and Technology (Progressive)** qualification the learner is required to complete the 3 mandatory units (27 credits), followed by (7 units) from group B (70 credits) to achieve a total of 97 credits. **OR**
- The K5 **Edexcel BTEC Level 3 Extended Diploma in Operations and Maintenance Engineering** consists of four mandatory units and one mandatory unit choice, plus optional units that provide for a combined total of 180 credits for the completed qualification. A minimum of 70 credits must be chosen from optional units group A, which must include a minimum of

one unit from the mandatory choice group. The remaining optional units can be taken from group A or group B. **OR**

- The K6 Edexcel BTEC Level 3 Diploma in Operations and Maintenance Engineering consists of four mandatory units and one mandatory unit choice, plus optional units that provide for a combined total of 120 credits for the completed qualification. A minimum of 50 credits must be chosen from optional units group A, which must include a minimum of one unit from the mandatory choice group. The remaining optional units can be taken from group A or group B.
- The K7 Edexcel BTEC Level 3 Diploma in Mechanical Engineering consists of five mandatory units plus optional units that provide for a combined total of 120 credits and 720 guided learning hours (GLH) for the completed qualification. A minimum of 40 credits must be chosen from optional units group A. The remaining optional units can be taken from group A or group B.
- The K8 Edexcel BTEC Level 3 Diploma in Electrical/Electronic Engineering consists of five mandatory units plus optional units that provide for a combined total of 120 credits and 720 guided learning hours (GLH) for the completed qualification. A minimum of 40 credits must be chosen from optional units group A. The remaining optional units can be taken from group A or group B.

# Transferable skills (Wales)

## Essential skills (Wales)

	Minimum level	Credit value
Communication	Level 2	6
Application of numbers	Level 2	6
IT	Not Required	

## Progression routes into and from this pathway

### PROGRESSION INTO THIS PATHWAY:

Work based qualifications such as NVQs / SVQs / AVCEs (Vocational A' Levels) and BTEC Diplomas related to Extractives and Mineral Processing sector careers are widely available and all provide a good basis for entry to this pathway. GCSEs and A Levels also provide a solid base to build on, with subjects such as Art, Science and Design and Technology all seen as useful by employers, along with English, Mathematics, IT and Business Studies.

Applicants who have successfully completed a Foundation Level 2 Apprenticeship in Extractives and Mineral Processing would be considered suitable for progression to an Apprenticeship at Level 3. A Foundation/Higher or Advanced Diploma in Manufacturing and Product Design will provide an excellent route into the sector. In addition, the Construction and Built Environment Diplomas also provides an excellent start for individuals interested in a career in the Extractives and Mineral Processing industry.

Some career pathways within the industry can be offered without qualifications, if a good impression is created at interview. Showing enthusiasm, good communication skills, providing proof of a mature attitude and problem solving skills can all help your chances. Many skills can be developed while you are employed if you have the right attitude. Previous work experience in a production industry, or a related discipline, is also a valuable foundation for entry into this pathway.

### PROGRESSION FROM THIS PATHWAY INCLUDE:

- Continuing to develop your technical skills and experience in Extractives and Mineral Processing and strive to "be the best" in your chosen occupational route and have pride in your work.



- Participating in relevant in-house company training or external learning, where available and/or offered.
- Broadening and developing your skill base by progression into other job roles within the Extractives and Mineral Processing industry - "horizontal progression"
- Progressing to Level 4 or 5 qualifications in either Extractives and Mineral Processing or in a related industry such as Geology or Engineering. This may also include Higher Apprenticeships.
- Undertaking a Higher/Advanced Diploma in Manufacturing and Product Design, Construction and the Built Environment or Creative and Media.
- Progressing into higher level jobs within the Extractives and Mineral Processing industry such as Plant manager , Surveyor, Deputy works manager, Shotfiring Supervisor, Health and Safety Advisor , Environmental Advisor or into other functional areas such as research and development for production methods, quality control marketing, sales, planning, procurement, finance or warehouse and distribution.
- Undertaking Assessor and Verifier qualifications.
- Undertaking further training in Management & Leadership, Lean Manufacturing or Business Improvement Techniques.
- Progressing to an industry related undergraduate programme e.g. Engineering, Science or Business Studies. **Entry may require additional training/learning.**

Take a closer look at your career options and progression opportunities in the Extractives and Mineral Processing Industry by visiting: [www.prospect4u.co.uk](http://www.prospect4u.co.uk)

## UCAS points for this pathway:

*(no information)*

# Employee rights and responsibilities

It is important that all employees understand and can demonstrate an understanding of their rights and responsibilities as an employee.

**The 9 required national outcomes/standards for ERR are that an Apprentice:**

1. Knows and understands the range of employer and employee statutory rights and responsibilities under Employment Law and that employment rights can be affected by other legislation as well.
2. Knows and understands the procedures and documentation in their organisation which recognise and protect their relationship with their employer.
3. Knows and understands the range of sources of information and advice available to them on their employment rights and responsibilities.
4. Knows and understands the role played by their occupation within their organisation and industry.
5. Has an informed view of the types of career pathways that are open to them.
6. Knows the types of representative bodies relevant to their industry and organisation, and their main roles and responsibilities.
7. Knows where and how to get information and advice on their industry, occupation, training and career.
8. Can describe and work within their organisation's principles and codes of practice.
9. Recognises and can form a view on issues of public concern that affect their organisation and industry.

Successful achievement of all 9 ERR national standards must be demonstrated and evidenced at the point of certification by the Assessor's completion of a verification sign off sheet confirming that all 9 ERR outcomes have been successfully achieved, demonstrated and evidenced by the Apprentice.

A copy of a suitable ERR workbook for the Extractives & Mineral Processing Industries is available to download from: [www.proskills.co.uk/qualifications/apprenticeships](http://www.proskills.co.uk/qualifications/apprenticeships) and it is recommended that this workbook is used for this framework.

If the Proskills ERR workbook is used, there is a suitable sign off sheet at the back of the booklet which, once appropriately signed and dated, is acceptable evidence for certification

purposes. Alternatively, if an alternative workbook/recording method is used then it must clearly meet all of the criteria and required outcomes as specified within the Proskills workbook. For those not using the Proskills ERR workbook, a separate ERR completion declaration form is available to download from: [www.proskills.co.uk/qualifications/apprenticeships](http://www.proskills.co.uk/qualifications/apprenticeships) and this must be completed and submitted as part of evidence for certification purposes.

**Time spent on ERR contributes towards meeting the minimum Learning Hours (LH) per year requirement for this pathway.**

*Note: If a Provider wishes to deliver and demonstrate achievement of ERR by an Apprentice's completion of an accredited QCF unit, then the following unit would be suitable:*

*Unit Title: Employment Rights and Responsibilities in the Process and Manufacturing Industries*

*Unit Ref: F/602/3940*

*Credit Value: 3*

*GLH: 18*

**NOTE: QCF units for ERR are also available from other Awarding Organisations**

## Level 3, Pathway 3: Mines Shotfiring

### Description of this pathway

Mines Shotfiring

**Total Credit Value = 68**

### Entry requirements for this pathway in addition to the framework entry requirements

There are no additional requirements other than the general entry conditions.

Job title(s)	Job role(s)
Mines Shotfirer	Responsible for the safe use of explosives during various parts of the mining operation, includes deliveries/returns of explosives and safe charging/firing of shots.

# Qualifications

## Competence qualifications available to this pathway

C1 - Level 3 Diploma in Shotfiring for Mining Operations					
No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
C1a	600/0780/1	MPQC	43	306	

## Knowledge qualifications available to this pathway

K1 - Level 3 Certificate in Extractive and Minerals Processing Industries					
No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
K1a	501/1342/2	MPQC	13	90-98	

## Combined qualifications available to this pathway

N/A

## Relationship between competence and knowledge qualifications

K1 provides the underpinning knowledge and understanding for C1.

**COMPETENCE:** Candidates must complete all 7 mandatory units.

**KNOWLEDGE:** To achieve this award, candidates must achieve all the mandatory units (7 credits) plus the optional unit for this pathway - **Principles of Blasting Activities** (7+6) = 13 Credits.

# Transferable skills (Wales)

## Essential skills (Wales)

	Minimum level	Credit value
Communication	Level 2	6
Application of numbers	Level 2	6
IT	Not Required	

## Progression routes into and from this pathway

### PROGRESSION INTO THIS PATHWAY:

Work based qualifications such as NVQs / SVQs / AVCEs (Vocational A' Levels) and BTEC Diplomas related to Extractives and Mineral Processing sector careers are widely available and all provide a good basis for entry to this pathway. GCSEs and A Levels also provide a solid base to build on, with subjects such as Art, Science and Design and Technology all seen as useful by employers, along with English, Mathematics, IT and Business Studies.

Applicants who have successfully completed a Foundation Level 2 Apprenticeship in Extractives and Mineral Processing would be considered suitable for progression to an Apprenticeship at Level 3. A Foundation/Higher or Advanced Diploma in Manufacturing and Product Design will provide an excellent route into the sector. In addition, the Construction and Built Environment Diplomas also provides an appropriate start for individuals interested in a career in the Extractives and Mineral Processing industry.

Some career pathways within the industry can be offered without qualifications, if a good impression is created at interview. Showing enthusiasm, good communication skills, providing proof of a mature attitude and problem solving skills can all help your chances. Many skills can be developed while you are employed if you have the right attitude. Previous work experience in a production industry, or a related discipline, is also a valuable foundation for entry into this pathway.

### PROGRESSION FROM THIS PATHWAY INCLUDE:

- Continuing to develop your technical skills and experience in Extractives and Mineral Processing and strive to "be the best" in your chosen occupational route and have pride in your work.



- Participating in relevant in-house company training or external learning, where available and/or offered.
- Broadening and developing your skill base by progression into other job roles within the Extractives and Mineral Processing industry - "horizontal progression"
- Progressing to Level 4 or 5 qualifications in either Extractives and Mineral Processing or in a related industry such as Geology or Engineering. This may also include Higher Apprenticeships.
- Undertaking a Higher/Advanced Diploma in Manufacturing and Product Design, Construction and the Built Environment or Creative and Media.
- Progressing into higher level jobs within the Extractives and Mineral Processing industry such as Plant manager , Surveyor, Deputy works manager, Shotfiring Supervisor, Health and Safety Advisor , Environmental Advisor or into other functional areas such as research and development for production methods, quality control marketing, sales, planning, procurement, finance or warehouse and distribution.
- Undertaking Assessor and Verifier qualifications.
- Undertaking further training in Management & Leadership, Lean Manufacturing or Business Improvement Techniques.
- Progressing to an industry related undergraduate programme e.g. Engineering, Science or Business Studies. **Entry may require additional training/learning.**

Take a closer look at your career options and progression opportunities in the Extractives and Mineral Processing Industry by visiting: [www.prospect4u.co.uk](http://www.prospect4u.co.uk)

### UCAS points for this pathway:

*(no information)*

# Employee rights and responsibilities

It is important that all employees understand and can demonstrate an understanding of their rights and responsibilities as an employee.

**The 9 required national outcomes/standards for ERR are that an Apprentice:**

1. Knows and understands the range of employer and employee statutory rights and responsibilities under Employment Law and that employment rights can be affected by other legislation as well.
2. Knows and understands the procedures and documentation in their organisation which recognise and protect their relationship with their employer.
3. Knows and understands the range of sources of information and advice available to them on their employment rights and responsibilities.
4. Knows and understands the role played by their occupation within their organisation and industry.
5. Has an informed view of the types of career pathways that are open to them.
6. Knows the types of representative bodies relevant to their industry and organisation, and their main roles and responsibilities.
7. Knows where and how to get information and advice on their industry, occupation, training and career.
8. Can describe and work within their organisation's principles and codes of practice.
9. Recognises and can form a view on issues of public concern that affect their organisation and industry.

Successful achievement of all 9 ERR national standards must be demonstrated and evidenced at the point of certification by the Assessor's completion of a verification sign off sheet confirming that all 9 ERR outcomes have been successfully achieved, demonstrated and evidenced by the Apprentice.

A copy of a suitable ERR workbook for the Extractives & Mineral Processing Industries is available to download from: [www.proskills.co.uk/qualifications/apprenticeships](http://www.proskills.co.uk/qualifications/apprenticeships) and it is recommended that this workbook is used for this framework.

If the Proskills ERR workbook is used, there is a suitable sign off sheet at the back of the

booklet which, once appropriately signed and dated, is acceptable evidence for certification purposes. Alternatively, if an alternative workbook/recording method is used then it must clearly meet all of the criteria and required outcomes as specified within the Proskills workbook. For those not using the Proskills ERR workbook, a separate ERR completion declaration form is available to download from: [www.proskills.co.uk/qualifications/apprenticeships](http://www.proskills.co.uk/qualifications/apprenticeships) and this must be completed and submitted as part of evidence for certification purposes.

**Time spent on ERR contributes towards meeting the minimum Learning Hours (LH) per year requirement for this pathway.**

Note: If a Provider wishes to deliver and demonstrate achievement of ERR by an Apprentice's completion of an accredited QCF unit, then the following unit would be suitable:

Unit Title: Employment Rights and Responsibilities in the Process and Manufacturing Industries

Unit Ref: F/602/3940

Credit Value: 3

GLH: 18

**NOTE: QCF units for ERR are also available from other Awarding Organisations**

## Level 3, Pathway 4: Mines Maintenance Supervision

### Description of this pathway

Mines Maintenance Supervision

**Total Credit Value ranges 230 - 356 (depending on which knowledge qualification is taken).**

### Entry requirements for this pathway in addition to the framework entry requirements

There are no additional entry requirements other than the general entry conditions.

Job title(s)	Job role(s)
Mines Maintenance Supervisor	Organise the pre-planned maintenance for area under their control, organise staff rotations, ensure all work is carried out in a safe manner consistent with risk assessments, method statements & work permits. Deal with emergency breakdowns and unplanned downtime in a safe and efficient manner.

# Qualifications

## Competence qualifications available to this pathway

C1 - Level 3 Diploma in Supervision of Mines Technical Operations					
No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
C1a	501/2341/5	MPQC	164	478	

## Knowledge qualifications available to this pathway

K1 - Edexcel BTEC Level 3 Diploma in Engineering					
No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
K1a	500/8154/8	Pearson Education Ltd	120	720	

K2 - EAL Level 3 Diploma in Maintenance Engineering Technology					
No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
K2a	501/1112/7	EMTA Awards Ltd	78	600	

## Knowledge qualifications available to this pathway (cont.)

K3 - Level 3 Diploma in Engineering					
No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
K3a	600/0882/9	City & Guilds	54	480	

K4 - EAL Level 3 Diploma in Engineering and Technology (Progressive)					
No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
K4a	501/1419/0	EMTA Awards Ltd	97	750	

K5 - Edexcel BTEC Level 3 Extended Diploma in Operations and Maintenance Engineering					
No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
K5a	500/7317/5	Pearson Education Ltd	180	1080	

K6 - Edexcel BTEC Level 3 Diploma in Operations and Maintenance Engineering					
No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
K6a	500/7315/1	Pearson Education Ltd	120	720	

## Combined qualifications available to this pathway

N/A

## Relationship between competence and knowledge qualifications

K1, K2, K3, K4, K5 **OR** K6 provides the underpinning knowledge and understanding for C1.

### COMPETENCE:

Candidates must achieve all 9 mandatory units for this qualification (164 credits).

**KNOWLEDGE:** There are a number of different knowledge qualifications available. The choice of which one a learner should achieve will depend on their job role and the plant which they will be operating. The most appropriate qualification will be decided by discussion with their employer. The qualifications have differing CVs and GLHs as certain job roles, responsibilities and operations being undertaken are much more complex than others and require higher skills and competencies to be achieved.

Learners must achieve **ONE** of the following knowledge qualifications:

- The K1 **Edexcel BTEC Level 3 Diploma in Engineering** consists of a minimum of 120 credits, of which at least 90 credits must be achieved at Level 3. The qualification includes six mandatory core units (70 credits). A further 50 credits must be selected from optional units in Group B. **OR**
- To achieve the K2 **EAL Level 3 Diploma in Maintenance Engineering Technology** qualification the learner is required to complete the 3 mandatory units (28 credits), followed by 5 optional units from group B (50 credits) to achieve a total of (78 credits). **OR**
- To achieve the K3 **C&G Level 3 Diploma in Engineering** learners need to achieve a minimum of 54 credits - 18 credits from group A, 18 credits from group B and 18 credits from one of the 7 pathways. **OR**
- To achieve the K4 **EAL Level 3 Diploma in Engineering and Technology (Progressive)** qualification the learner is required to complete the 3 mandatory units (27 credits), followed by (7 units) from group B (70 credits) to achieve a total of 97 credits. **OR**
- The K5 **Edexcel BTEC Level 3 Extended Diploma in Operations and Maintenance Engineering** consists of four mandatory units and one mandatory unit choice, plus optional units that provide for a combined total of 180 credits for the completed qualification. A minimum of



70 credits must be chosen from optional units group A, which must include a minimum of one unit from the mandatory choice group. The remaining optional units can be taken from group A or group B. **OR**

- The K6 **Edexcel BTEC Level 3 Diploma in Operations and Maintenance Engineering** consists of four mandatory units and one mandatory unit choice, plus optional units that provide for a combined total of 120 credits for the completed qualification. A minimum of 50 credits must be chosen from optional units group A, which must include a minimum of one unit from the mandatory choice group. The remaining optional units can be taken from group A or group B.

# Transferable skills (Wales)

## Essential skills (Wales)

	Minimum level	Credit value
Communication	Level 2	6
Application of numbers	Level 2	6
IT	Not Required	

## Progression routes into and from this pathway

### PROGRESSION INTO THIS PATHWAY:

Work based qualifications such as NVQs / SVQs / AVCEs (Vocational A' Levels) and BTEC Diplomas related to Extractives and Mineral Processing sector careers are widely available and all provide a good basis for entry to this pathway. GCSEs and A Levels also provide a solid base to build on, with subjects such as Art, Science and Design and Technology all seen as useful by employers, along with English, Mathematics, IT and Business Studies.

Applicants who have successfully completed a Foundation Level 2 Apprenticeship in Extractives and Mineral Processing would be considered suitable for progression to an Apprenticeship at Level 3. A Foundation/Higher or Advanced Diploma in Manufacturing and Product Design will provide an excellent route into the sector. In addition, the Construction and Built Environment Diplomas also provides an appropriate start for individuals interested in a career in the Extractives and Mineral Processing industry.

Some career pathways within the industry can be offered without qualifications, if a good impression is created at interview. Showing enthusiasm, good communication skills, providing proof of a mature attitude and problem solving skills can all help your chances. Many skills can be developed while you are employed if you have the right attitude. Previous work experience in a production industry, or a related discipline, is also a valuable foundation for entry into this pathway.

### PROGRESSION FROM THIS PATHWAY INCLUDE:

- Continuing to develop your technical skills and experience in Extractives and Mineral Processing and strive to "be the best" in your chosen occupational route and have pride in your work.

- Participating in relevant in-house company training or external learning, where available and/or offered.
- Broadening and developing your skill base by progression into other job roles within the Extractives and Mineral Processing industry - "horizontal progression"
- Progressing to Level 4 or 5 qualifications in either Extractives and Mineral Processing or in a related industry such as Geology or Engineering. This may also include Higher Apprenticeships.
- Undertaking a Higher/Advanced Diploma in Manufacturing and Product Design, Construction and the Built Environment or Creative and Media.
- Progressing into higher level jobs within the Extractives and Mineral Processing industry such as Plant manager , Surveyor, Deputy works manager, Shotfiring Supervisor, Health and Safety Advisor , Environmental Advisor or into other functional areas such as research and development for production methods, quality control marketing, sales, planning, procurement, finance or warehouse and distribution.
- Undertaking Assessor and Verifier qualifications.
- Undertaking further training in Management & Leadership, Lean Manufacturing or Business Improvement Techniques.
- Progressing to an industry related undergraduate programme e.g. Engineering, Science or Business Studies. **Entry may require additional training/learning.**

Take a closer look at your career options and progression opportunities in the Extractives and Mineral Processing Industry by visiting: [www.prospect4u.co.uk](http://www.prospect4u.co.uk)

### UCAS points for this pathway:

*(no information)*

# Employee rights and responsibilities

It is important that all employees understand and can demonstrate an understanding of their rights and responsibilities as an employee.

**The 9 required national outcomes/standards for ERR are that an Apprentice:**

1. Knows and understands the range of employer and employee statutory rights and responsibilities under Employment Law and that employment rights can be affected by other legislation as well.
2. Knows and understands the procedures and documentation in their organisation which recognise and protect their relationship with their employer.
3. Knows and understands the range of sources of information and advice available to them on their employment rights and responsibilities.
4. Knows and understands the role played by their occupation within their organisation and industry.
5. Has an informed view of the types of career pathways that are open to them.
6. Knows the types of representative bodies relevant to their industry and organisation, and their main roles and responsibilities.
7. Knows where and how to get information and advice on their industry, occupation, training and career.
8. Can describe and work within their organisation's principles and codes of practice.
9. Recognises and can form a view on issues of public concern that affect their organisation and industry.

Successful achievement of all 9 ERR national standards must be demonstrated and evidenced at the point of certification by the Assessor's completion of a verification sign off sheet confirming that all 9 ERR outcomes have been successfully achieved, demonstrated and evidenced by the Apprentice.

A copy of a suitable ERR workbook for the Extractives & Mineral Processing Industries is available to download from: [www.proskills.co.uk/qualifications/apprenticeships](http://www.proskills.co.uk/qualifications/apprenticeships) and it is recommended that this workbook is used for this framework.

If the Proskills ERR workbook is used, there is a suitable sign off sheet at the back of the

booklet which, once appropriately signed and dated, is acceptable evidence for certification purposes. Alternatively, if an alternative workbook/recording method is used then it must clearly meet all of the criteria and required outcomes as specified within the Proskills workbook. For those not using the Proskills ERR workbook, a separate ERR completion declaration form is available to download from: [www.proskills.co.uk/qualifications/apprenticeships](http://www.proskills.co.uk/qualifications/apprenticeships) and this must be completed and submitted as part of evidence for certification purposes.

**Time spent on ERR contributes towards meeting the minimum Learning Hours (LH) per year requirement for this pathway.**

Note: If a Provider wishes to deliver and demonstrate achievement of ERR by an Apprentice's completion of an accredited QCF unit, then the following unit would be suitable:

Unit Title: Employment Rights and Responsibilities in the Process and Manufacturing Industries

Unit Ref: F/602/3940

Credit Value: 3

GLH: 18

**NOTE: QCF units for ERR are also available from other Awarding Organisations**

## Level 3, Pathway 5: Processing Plant Supervision

### Description of this pathway

Processing Plant Supervision

**Total Credit Value = 170 or 176 (depending on which competency qualification is taken).**

### Entry requirements for this pathway in addition to the framework entry requirements

There are no additional requirements other than the general entry conditions.

<b>Job title(s)</b>	<b>Job role(s)</b>
Quarry, Depot or Processing Plant Supervisor	Supervise the operation of an Asphalt or Concrete plant, taking actions in the event of breakdown or non compliance with specification. Organise staff under their control.

# Qualifications

## Competence qualifications available to this pathway

C1 - Level 3 Diploma for Asphalt Production in the Extractive and Mineral Process Industry					
No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
C1a	501/0635/1	MPQC	151	679-687	

C2 - Level 3 Diploma in Ready Mixed Concrete Production					
No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
C2a	600/1107/5	MPQC	145	731-841	

## Knowledge qualifications available to this pathway

K1 - Level 3 Certificate in Extractive and Minerals Processing Industries					
No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
K1a	501/1342/2	MPQC	13	90-98	



## Combined qualifications available to this pathway

N/A

## Relationship between competence and knowledge qualifications

K1 provides the underpinning knowledge and understanding for C1 or C2.

**COMPETENCE:** There are 2 competency qualifications available. The choice of which one is to be achieved will be dependent on the Apprentice's area of work - either Asphalt or Ready Mixed Concrete Production.

### **C1: Level 3 Diploma for Asphalt Production in the Extractive and Mineral Process Industry**

This qualification has 2 Pathways that can be achieved:

All mandatory units in 'A' must be completed by all candidates and in addition: -

**Pathway 1 Batch Plant:** All mandatory units for Batch Plant to be completed by learners engaged in Batch Plant **OR**

**Pathway 2 Drum Mix:** All mandatory units for Drum Mix to be completed by learners engaged in Drum Mix Plants

### **C2: Level 3 Diploma in Ready Mixed Concrete Production**

This qualification has 2 Pathways that can be achieved:

Candidates for either pathway must achieve all mandatory units plus the optional unit/s for their chosen pathway: -

**Pathway 1 Dry Batch Only:** An additional unit must be completed from Pathway 1 for sites with Dry Batch facilities only **OR**

**Pathway 2 Dry Batch & Wet Batch:** An additional unit must be completed from Pathway 2 for sites with Dry Batch and Wet Batch facilities.

**KNOWLEDGE:** To achieve this award, candidates must achieve all the mandatory units (7 credits) plus the optional unit for this pathway which is **Supervision of Mining Operations 6** credits ) = total of 13 credits.

# Transferable skills (Wales)

## Essential skills (Wales)

	Minimum level	Credit value
Communication	Level 2	6
Application of numbers	Level 2	6
IT	Not Required	

## Progression routes into and from this pathway

### PROGRESSION INTO THIS PATHWAY:

Work based qualifications such as NVQs / SVQs / AVCEs (Vocational A' Levels) and BTEC Diplomas related to Extractives and Mineral Processing sector careers are widely available and all provide a good basis for entry to this pathway. GCSEs and A Levels also provide a solid base to build on, with subjects such as Art, Science and Design and Technology all seen as useful by employers, along with English, Mathematics, IT and Business Studies.

Applicants who have successfully completed a Foundation Level 2 Apprenticeship in Extractives and Mineral Processing would be considered suitable for progression to an Apprenticeship at Level 3. A Foundation/Higher or Advanced Diploma in Manufacturing and Product Design will provide an excellent route into the sector. In addition, the Construction and Built Environment Diplomas also provides an appropriate start for individuals interested in a career in the Extractives and Mineral Processing industry.

Some career pathways within the industry can be offered without qualifications, if a good impression is created at interview. Showing enthusiasm, good communication skills, providing proof of a mature attitude and problem solving skills can all help your chances. Many skills can be developed while you are employed if you have the right attitude. Previous work experience in a production industry, or a related discipline, is also a valuable foundation for entry into this pathway.

### PROGRESSION FROM THIS PATHWAY INCLUDE:

- Continuing to develop your technical skills and experience in Extractives and Mineral Processing and strive to "be the best" in your chosen occupational route and have pride in your work.

- Participating in relevant in-house company training or external learning, where available and/or offered.
- Broadening and developing your skill base by progression into other job roles within the Extractives and Mineral Processing industry - "horizontal progression"
- Progressing to Level 4 or 5 qualifications in either Extractives and Mineral Processing or in a related industry such as Geology or Engineering. This may also include Higher Apprenticeships.
- Undertaking a Higher/Advanced Diploma in Manufacturing and Product Design, Construction and the Built Environment or Creative and Media.
- Progressing into higher level jobs within the Extractives and Mineral Processing industry such as Plant manager , Surveyor, Deputy works manager, Shotfiring Supervisor, Health and Safety Advisor , Environmental Advisor or into other functional areas such as research and development for production methods, quality control marketing, sales, planning, procurement, finance or warehouse and distribution.
- Undertaking Assessor and Verifier qualifications.
- Undertaking further training in Management & Leadership, Lean Manufacturing or Business Improvement Techniques.
- Progressing to an industry related undergraduate programme e.g. Engineering, Science or Business Studies. **Entry may require additional training/learning.**

Take a closer look at your career options and progression opportunities in the Extractives and Mineral Processing Industry by visiting: [www.prospect4u.co.uk](http://www.prospect4u.co.uk)

### UCAS points for this pathway:

*(no information)*

# Employee rights and responsibilities

It is important that all employees understand and can demonstrate an understanding of their rights and responsibilities as an employee.

**The 9 required national outcomes/standards for ERR are that an Apprentice:**

1. Knows and understands the range of employer and employee statutory rights and responsibilities under Employment Law and that employment rights can be affected by other legislation as well.
2. Knows and understands the procedures and documentation in their organisation which recognise and protect their relationship with their employer.
3. Knows and understands the range of sources of information and advice available to them on their employment rights and responsibilities.
4. Knows and understands the role played by their occupation within their organisation and industry.
5. Has an informed view of the types of career pathways that are open to them.
6. Knows the types of representative bodies relevant to their industry and organisation, and their main roles and responsibilities.
7. Knows where and how to get information and advice on their industry, occupation, training and career.
8. Can describe and work within their organisation's principles and codes of practice.
9. Recognises and can form a view on issues of public concern that affect their organisation and industry.

Successful achievement of all 9 ERR national standards must be demonstrated and evidenced at the point of certification by the Assessor's completion of a verification sign off sheet confirming that all 9 ERR outcomes have been successfully achieved, demonstrated and evidenced by the Apprentice.

A copy of a suitable ERR workbook for the Extractives & Mineral Processing Industries is available to download from: [www.proskills.co.uk/qualifications/apprenticeships](http://www.proskills.co.uk/qualifications/apprenticeships) and it is recommended that this workbook is used for this framework.

If the Proskills ERR workbook is used, there is a suitable sign off sheet at the back of the

booklet which, once appropriately signed and dated, is acceptable evidence for certification purposes. Alternatively, if an alternative workbook/recording method is used then it must clearly meet all of the criteria and required outcomes as specified within the Proskills workbook. For those not using the Proskills ERR workbook, a separate ERR completion declaration form is available to download from: [www.proskills.co.uk/qualifications/apprenticeships](http://www.proskills.co.uk/qualifications/apprenticeships) and this must be completed and submitted as part of evidence for certification purposes.

**Time spent on ERR contributes towards meeting the minimum Learning Hours (LH) per year requirement for this pathway.**

Note: If a Provider wishes to deliver and demonstrate achievement of ERR by an Apprentice's completion of an accredited QCF unit, then the following unit would be suitable:

Unit Title: Employment Rights and Responsibilities in the Process and Manufacturing Industries

Unit Ref: F/602/3940

Credit Value: 3

GLH: 18

**NOTE: QCF units for ERR are also available from other Awarding Organisations**

## Level 3, Pathway 6: Shotfiring

### Description of this pathway

Shotfiring

**Total Credit Value = 62 or 71 (depending on which competency qualification is taken).**

### Entry requirements for this pathway in addition to the framework entry requirements

There are no additional requirements other than the general entry conditions.

<b>Job title(s)</b>	<b>Job role(s)</b>
Shotfirer	Checking, Charging and Firing the Blast in accordance with the Blast design

# Qualifications

## Competence qualifications available to this pathway

C1 - Level 3 NVQ Diploma in Shotfiring for the Extractive and Minerals Processing Industries					
No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
C1a	501/1737/3	MPQC	37	296	

C2 - Level 3 Diploma for Shotfiring in Construction					
No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
C2a	600/1347/3	MPQC	46	397-447	

## Knowledge qualifications available to this pathway

K1 - Level 3 Certificate in Extractive and Minerals Processing Industries					
No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
K1a	501/1342/2	MPQC	13	90-98	



## Combined qualifications available to this pathway

N/A

## Relationship between competence and knowledge qualifications

K1 provides the underpinning knowledge and understanding for C1 or C2.

**COMPETENCE:** There are 2 different competency qualifications available. The choice of which one a learner should achieve will depend on their job role, their responsibilities and working environment. Shotfiring in construction is more complex than in Extractives. The most appropriate qualification will be decided by discussion with their employer.

**Level 3 NVQ Diploma in Shotfiring for the Extractive and Minerals Processing Industries:** To achieve this qualification candidates must complete all 6 mandatory units in Group A.

**Level 3 Diploma for Shotfiring in Construction:** To achieve this qualification candidates must complete all 6 mandatory units (37 credits,) plus **one** of the three available pathways **Tunnelling, Demolition or Construction Diving** to achieve a **minimum** total of 46 credits.

### KNOWLEDGE:

To achieve this award, candidates must take all of the mandatory units plus optional unit for **The Principles of Blasting Activities** (7+6) = 13 Credits

# Transferable skills (Wales)

## Essential skills (Wales)

	Minimum level	Credit value
Communication	Level 2	6
Application of numbers	Level 2	6
IT	Not Required	

## Progression routes into and from this pathway

### PROGRESSION INTO THIS PATHWAY:

Work based qualifications such as NVQs / SVQs / AVCEs (Vocational A' Levels) and BTEC Diplomas related to Extractives and Mineral Processing sector careers are widely available and all provide a good basis for entry to this pathway. GCSEs and A Levels also provide a solid base to build on, with subjects such as Art, Science and Design and Technology all seen as useful by employers, along with English, Mathematics, IT and Business Studies.

Applicants who have successfully completed a Foundation Level 2 Apprenticeship in Extractives and Mineral Processing would be considered suitable for progression to an Apprenticeship at Level 3. A Foundation/Higher or Advanced Diploma in Manufacturing and Product Design will provide an excellent route into the sector. In addition, the Construction and Built Environment Diplomas also provides an appropriate start for individuals interested in a career in the Extractives and Mineral Processing industry.

Some career pathways within the industry can be offered without qualifications, if a good impression is created at interview. Showing enthusiasm, good communication skills, providing proof of a mature attitude and problem solving skills can all help your chances. Many skills can be developed while you are employed if you have the right attitude. Previous work experience in a production industry, or a related discipline, is also a valuable foundation for entry into this pathway.

### PROGRESSION FROM THIS PATHWAY INCLUDE:

- Continuing to develop your technical skills and experience in Extractives and Mineral Processing and strive to "be the best" in your chosen occupational route and have pride in your work.

- Participating in relevant in-house company training or external learning, where available and/or offered.
- Broadening and developing your skill base by progression into other job roles within the Extractives and Mineral Processing industry - "horizontal progression"
- Progressing to Level 4 or 5 qualifications in either Extractives and Mineral Processing or in a related industry such as Geology or Engineering. This may also include Higher Apprenticeships.
- Undertaking a Higher/Advanced Diploma in Manufacturing and Product Design, Construction and the Built Environment or Creative and Media.
- Progressing into higher level jobs within the Extractives and Mineral Processing industry such as Plant manager , Surveyor, Deputy works manager, Shotfiring Supervisor, Health and Safety Advisor , Environmental Advisor or into other functional areas such as research and development for production methods, quality control marketing, sales, planning, procurement, finance or warehouse and distribution.
- Undertaking Assessor and Verifier qualifications.
- Undertaking further training in Management & Leadership, Lean Manufacturing or Business Improvement Techniques.
- Progressing to an industry related undergraduate programme e.g. Engineering, Science or Business Studies. **Entry may require additional training/learning.**

Take a closer look at your career options and progression opportunities in the Extractives and Mineral Processing Industry by visiting: [www.prospect4u.co.uk](http://www.prospect4u.co.uk)

### UCAS points for this pathway:

*(no information)*

# Employee rights and responsibilities

It is important that all employees understand and can demonstrate an understanding of their rights and responsibilities as an employee.

**The 9 required national outcomes/standards for ERR are that an Apprentice:**

1. Knows and understands the range of employer and employee statutory rights and responsibilities under Employment Law and that employment rights can be affected by other legislation as well.
2. Knows and understands the procedures and documentation in their organisation which recognise and protect their relationship with their employer.
3. Knows and understands the range of sources of information and advice available to them on their employment rights and responsibilities.
4. Knows and understands the role played by their occupation within their organisation and industry.
5. Has an informed view of the types of career pathways that are open to them.
6. Knows the types of representative bodies relevant to their industry and organisation, and their main roles and responsibilities.
7. Knows where and how to get information and advice on their industry, occupation, training and career.
8. Can describe and work within their organisation's principles and codes of practice.
9. Recognises and can form a view on issues of public concern that affect their organisation and industry.

Successful achievement of all 9 ERR national standards must be demonstrated and evidenced at the point of certification by the Assessor's completion of a verification sign off sheet confirming that all 9 ERR outcomes have been successfully achieved, demonstrated and evidenced by the Apprentice.

A copy of a suitable ERR workbook for the Extractives & Mineral Processing Industries is available to download from: [www.proskills.co.uk/qualifications/apprenticeships](http://www.proskills.co.uk/qualifications/apprenticeships) and it is recommended that this workbook is used for this framework.

If the Proskills ERR workbook is used, there is a suitable sign off sheet at the back of the

booklet which, once appropriately signed and dated, is acceptable evidence for certification purposes. Alternatively, if an alternative workbook/recording method is used then it must clearly meet all of the criteria and required outcomes as specified within the Proskills workbook. For those not using the Proskills ERR workbook, a separate ERR completion declaration form is available to download from: [www.proskills.co.uk/qualifications/apprenticeships](http://www.proskills.co.uk/qualifications/apprenticeships) and this must be completed and submitted as part of evidence for certification purposes.

**Time spent on ERR contributes towards meeting the minimum Learning Hours (LH) per year requirement for this pathway.**

Note: If a Provider wishes to deliver and demonstrate achievement of ERR by an Apprentice's completion of an accredited QCF unit, then the following unit would be suitable:

Unit Title: Employment Rights and Responsibilities in the Process and Manufacturing Industries

Unit Ref: F/602/3940

Credit Value: 3

GLH: 18

**NOTE: QCF units for ERR are also available from other Awarding Organisations**

## Level 3, Pathway 7: Mines - Electrical - POTASH

### Description of this pathway

Mines - Electrical - POTASH

**Total Credit Value ranges from 411 - 537 (depending on which knowledge qualification is taken).**

### Entry requirements for this pathway in addition to the framework entry requirements

There are no additional requirements other than the general entry conditions.

<b>Job title(s)</b>	<b>Job role(s)</b>
Potash Mines Electrical Technician	Assisting in maintenance of underground electrical systems within a potash extraction environment, supervised by a qualified potash mines electrician. Extraction of potash is a different operation from coal extraction and requires technicians to have specific areas of knowledge and expertise.

# Qualifications

## Competence qualifications available to this pathway

C1 - Level 3 Diploma in Mining Electrical Operations					
No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
C1a	501/2361/0	MPQC	306	621	

C2 - Level 3 Diploma in Carrying Out Condition Monitoring of Mining Plant and Equipment					
No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
C2a	600/3177/3	MPQC	39	81	

## Knowledge qualifications available to this pathway

K1 - Edexcel BTEC Level 3 Diploma in Engineering					
No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
K1a	500/8154/8	Pearson Education Ltd	120	720	



## Knowledge qualifications available to this pathway (cont.)

K2 - EAL Level 3 Diploma in Maintenance Engineering Technology					
No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
K2a	501/1112/7	EMTA Awards Ltd	78	600	

  

K3 - Level 3 Diploma in Engineering					
No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
K3a	600/0882/9	City & Guilds	54	480	

  

K4 - EAL Level 3 Diploma in Engineering and Technology (Progressive)					
No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
K4a	501/1419/0	EMTA Awards Ltd	97	750	

  

K5 - Edexcel BTEC Level 3 Extended Diploma in Operations and Maintenance Engineering					
No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
K5a	500/7317/5	Pearson Education Ltd	180	1080	

## Knowledge qualifications available to this pathway (cont.)

K6 - Edexcel BTEC Level 3 Diploma in Operations and Maintenance Engineering					
No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
K6a	500/7315/1	Pearson Education Ltd	120	720	

## Combined qualifications available to this pathway

N/A

## Relationship between competence and knowledge qualifications

K1, K2, K3, K4, K5 **OR** K6 provides the underpinning knowledge and understanding for C1 **AND** C2

**COMPETENCE:** Please note, Learners must achieve **BOTH C1 AND C2**

**C1: Level 3 Diploma in Mining Electrical Operations :** There are 14 units in the qualification, of which 12 are mandatory. To gain this qualification, 306 credits need to be achieved.

**AND ....**

**C2: Level 3 Diploma in Carrying Out Condition Monitoring of Mining Plant and Equipment :** The candidate must complete the one mandatory unit to achieve this qualification.

**KNOWLEDGE:** There are a number of different knowledge qualifications available. The choice of which one a learner should achieve will depend on their job role, responsibilities and the plant which they will be operating. The most appropriate qualification will be decided by discussion with their employer. The qualifications have differing CVs and GLHs as certain job roles and plant operations are much more complex than others and require higher skills and competencies to be achieved.

Learners must achieve **ONE** of the following knowledge qualifications:

- The K1 **Edexcel BTEC Level 3 Diploma in Engineering** consists of a minimum of 120 credits, of which at least 90 credits must be achieved at Level 3. The qualification includes six mandatory core units (70 credits). A further 50 credits must be selected from optional units in Group B. **OR**
- To achieve the K2 **EAL Level 3 Diploma in Maintenance Engineering Technology** qualification the learner is required to complete the 3 mandatory units (28 credits), followed by 5 optional units from group B (50 credits) to achieve a total of (78 credits). **OR**
- To achieve the K3 **C&G Level 3 Diploma in Engineering** learners need to achieve a minimum of 54 credits - 18 credits from group A, 18 credits from group B and 18 credits from one of the 7 pathways. **OR**

- To achieve the **K4 EAL Level 3 Diploma in Engineering and Technology (Progressive)** qualification the learner is required to complete the 3 mandatory units (27 credits), followed by (7 units) from group B (70 credits) to achieve a total of 97 credits. **OR**
- The **K5 Edexcel BTEC Level 3 Extended Diploma in Operations and Maintenance Engineering** consists of four mandatory units and one mandatory unit choice, plus optional units that provide for a combined total of 180 credits for the completed qualification. A minimum of 70 credits must be chosen from optional units group A, which must include a minimum of one unit from the mandatory choice group. The remaining optional units can be taken from group A or group B. **OR**
- The **K6 Edexcel BTEC Level 3 Diploma in Operations and Maintenance Engineering** consists of four mandatory units and one mandatory unit choice, plus optional units that provide for a combined total of 120 credits for the completed qualification. A minimum of 50 credits must be chosen from optional units group A, which must include a minimum of one unit from the mandatory choice group. The remaining optional units can be taken from group A or group B.

# Transferable skills (Wales)

## Essential skills (Wales)

	Minimum level	Credit value
Communication	Level 2	6
Application of numbers	Level 2	6
IT	Not Required	

## Progression routes into and from this pathway

### PROGRESSION INTO THIS PATHWAY:

Work based qualifications such as NVQs / SVQs / AVCEs (Vocational A' Levels) and BTEC Diplomas related to Extractives and Mineral Processing sector careers are widely available and all provide a good basis for entry to this pathway. GCSEs and A Levels also provide a solid base to build on, with subjects such as Art, Science and Design and Technology all seen as useful by employers, along with English, Mathematics, IT and Business Studies.

Applicants who have successfully completed a Foundation Level 2 Apprenticeship in Extractives and Mineral Processing would be considered suitable for progression to an Apprenticeship at Level 3. A Foundation/Higher or Advanced Diploma in Manufacturing and Product Design will provide an excellent route into the sector. In addition, the Construction and Built Environment Diplomas also provides an appropriate start for individuals interested in a career in the Extractives and Mineral Processing industry.

Some career pathways within the industry can be offered without qualifications, if a good impression is created at interview. Showing enthusiasm, good communication skills, providing proof of a mature attitude and problem solving skills can all help your chances. Many skills can be developed while you are employed if you have the right attitude. Previous work experience in a production industry, or a related discipline, is also a valuable foundation for entry into this pathway.

### PROGRESSION FROM THIS PATHWAY INCLUDE:

- Continuing to develop your technical skills and experience in Extractives and Mineral Processing and strive to "be the best" in your chosen occupational route and have pride in your work.

- Participating in relevant in-house company training or external learning, where available and/or offered.
- Broadening and developing your skill base by progression into other job roles within the Extractives and Mineral Processing industry - "horizontal progression"
- Progressing to Level 4 or 5 qualifications in either Extractives and Mineral Processing or in a related industry such as Geology or Engineering. This may also include Higher Apprenticeships.
- Undertaking a Higher/Advanced Diploma in Manufacturing and Product Design, Construction and the Built Environment or Creative and Media.
- Progressing into higher level jobs within the Extractives and Mineral Processing industry such as Plant manager , Surveyor, Deputy works manager, Shotfiring Supervisor, Health and Safety Advisor , Environmental Advisor or into other functional areas such as research and development for production methods, quality control marketing, sales, planning, procurement, finance or warehouse and distribution.
- Undertaking Assessor and Verifier qualifications.
- Undertaking further training in Management & Leadership, Lean Manufacturing or Business Improvement Techniques.
- Progressing to an industry related undergraduate programme e.g. Engineering, Science or Business Studies. **Entry may require additional training/learning.**

Take a closer look at your career options and progression opportunities in the Extractives and Mineral Processing Industry by visiting: [www.prospect4u.co.uk](http://www.prospect4u.co.uk)

### UCAS points for this pathway:

*(no information)*

# Employee rights and responsibilities

It is important that all employees understand and can demonstrate an understanding of their rights and responsibilities as an employee.

**The 9 required national outcomes/standards for ERR are that an Apprentice:**

1. Knows and understands the range of employer and employee statutory rights and responsibilities under Employment Law and that employment rights can be affected by other legislation as well.
2. Knows and understands the procedures and documentation in their organisation which recognise and protect their relationship with their employer.
3. Knows and understands the range of sources of information and advice available to them on their employment rights and responsibilities.
4. Knows and understands the role played by their occupation within their organisation and industry.
5. Has an informed view of the types of career pathways that are open to them.
6. Knows the types of representative bodies relevant to their industry and organisation, and their main roles and responsibilities.
7. Knows where and how to get information and advice on their industry, occupation, training and career.
8. Can describe and work within their organisation's principles and codes of practice.
9. Recognises and can form a view on issues of public concern that affect their organisation and industry.

Successful achievement of all 9 ERR national standards must be demonstrated and evidenced at the point of certification by the Assessor's completion of a verification sign off sheet confirming that all 9 ERR outcomes have been successfully achieved, demonstrated and evidenced by the Apprentice.

A copy of a suitable ERR workbook for the Extractives & Mineral Processing Industries is available to download from: [www.proskills.co.uk/qualifications/apprenticeships](http://www.proskills.co.uk/qualifications/apprenticeships) and it is recommended that this workbook is used for this framework.

If the Proskills ERR workbook is used, there is a suitable sign off sheet at the back of the

booklet which, once appropriately signed and dated, is acceptable evidence for certification purposes. Alternatively, if an alternative workbook/recording method is used then it must clearly meet all of the criteria and required outcomes as specified within the Proskills workbook. For those not using the Proskills ERR workbook, a separate ERR completion declaration form is available to download from: [www.proskills.co.uk/qualifications/apprenticeships](http://www.proskills.co.uk/qualifications/apprenticeships) and this must be completed and submitted as part of evidence for certification purposes.

**Time spent on ERR contributes towards meeting the minimum Learning Hours (LH) per year requirement for this pathway.**

Note: If a Provider wishes to deliver and demonstrate achievement of ERR by an Apprentice's completion of an accredited QCF unit, then the following unit would be suitable:

Unit Title: Employment Rights and Responsibilities in the Process and Manufacturing Industries

Unit Ref: F/602/3940

Credit Value: 3

GLH: 18

**NOTE: QCF units for ERR are also available from other Awarding Organisations**



## Level 3, Pathway 8: Mines - Mechanical - POTASH

### Description of this pathway

Mines - Mechanical - POTASH

**Total Credit Value ranges from 420 - 546 (depending on which knowledge qualification is taken).**

### Entry requirements for this pathway in addition to the framework entry requirements

There are no additional requirements other than the general entry conditions.

<b>Job title(s)</b>	<b>Job role(s)</b>
Potash Mines Mechanical Technician	Assisting in maintenance of underground machinery in a potash extraction environment, supervised by a qualified potash mechanical fitter. Extraction of potash is a different operation from coal extraction and requires technicians to have specific areas of knowledge and expertise.

# Qualifications

## Competence qualifications available to this pathway

C1 - Level 3 Diploma in Mining Mechanical Operations					
No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
C1a	501/2295/2	MPQC	315	678	

C2 - Level 3 Diploma in Carrying Out Condition Monitoring of Mining Plant and Equipment					
No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
C2a	600/3177/3	MPQC	39	81	

## Knowledge qualifications available to this pathway

K1 - Edexcel BTEC Level 3 Diploma in Engineering					
No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
K1a	500/8154/8	Pearson Education Ltd	120	720	

## Knowledge qualifications available to this pathway (cont.)

K2 - EAL Level 3 Diploma in Maintenance Engineering Technology					
No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
K2a	501/1112/7	EMTA Awards Ltd	78	600	

  

K3 - Level 3 Diploma in Engineering					
No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
K3a	600/0882/9	City & Guilds	54	480	

  

K4 - EAL Level 3 Diploma in Engineering and Technology (Progressive)					
No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
K4a	501/1419/0	EMTA Awards Ltd	97	750	

  

K5 - Edexcel BTEC Level 3 Extended Diploma in Operations and Maintenance Engineering					
No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
K5a	500/7317/5	Pearson Education Ltd	180	1080	

## Knowledge qualifications available to this pathway (cont.)

K6 - Edexcel BTEC Level 3 Diploma in Operations and Maintenance Engineering					
No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
K6a	500/7315/1	Pearson Education Ltd	120	720	

## Combined qualifications available to this pathway

N/A

## Relationship between competence and knowledge qualifications

K1, K2, K3, K4, K5 **OR** K6 provides the underpinning knowledge and understanding for **C1 AND C2**

**COMPETENCE:** Learners must achieve **BOTH C1 AND C2**

**C1: Level 3 Diploma in Mining Mechanical Operations:** There are 12 units in the qualification and all are mandatory (totalling 315 credits)

**AND ....**

**C2: Level 3 Diploma in Carrying Out Condition Monitoring of Mining Plant and Equipment :**  
The candidate must complete the one mandatory unit to achieve this qualification.

**KNOWLEDGE:** There are a number of different knowledge qualifications available. The choice of which one a learner should achieve will depend on their job role, responsibilities and the plant which they will be operating. The most appropriate qualification will be decided by discussion with their employer. The qualifications have differing CVs and GLHs as certain job roles and plant operations are much more complex than others and require higher skills and competencies to be achieved.

Learners must achieve **ONE** of the following knowledge qualifications:

- The K1 **Edexcel BTEC Level 3 Diploma in Engineering** consists of a minimum of 120 credits, of which at least 90 credits must be achieved at Level 3. The qualification includes six mandatory core units (70 credits). A further 50 credits must be selected from optional units in Group B. **OR**
- To achieve the K2 **EAL Level 3 Diploma in Maintenance Engineering Technology** qualification the learner is required to complete the 3 mandatory units (28 credits), followed by 5 optional units from group B (50 credits) to achieve a total of (78 credits). **OR**
- To achieve the K3 **C&G Level 3 Diploma in Engineering** learners need to achieve a minimum of 54 credits - 18 credits from group A, 18 credits from group B and 18 credits from one of the 7 pathways. **OR**

- To achieve the **K4 EAL Level 3 Diploma in Engineering and Technology (Progressive)** qualification the learner is required to complete the 3 mandatory units (27 credits), followed by (7 units) from group B (70 credits) to achieve a total of 97 credits. **OR**
- The **K5 Edexcel BTEC Level 3 Extended Diploma in Operations and Maintenance Engineering** consists of four mandatory units and one mandatory unit choice, plus optional units that provide for a combined total of 180 credits for the completed qualification. A minimum of 70 credits must be chosen from optional units group A, which must include a minimum of one unit from the mandatory choice group. The remaining optional units can be taken from group A or group B. **OR**
- The **K6 Edexcel BTEC Level 3 Diploma in Operations and Maintenance Engineering** consists of four mandatory units and one mandatory unit choice, plus optional units that provide for a combined total of 120 credits for the completed qualification. A minimum of 50 credits must be chosen from optional units group A, which must include a minimum of one unit from the mandatory choice group. The remaining optional units can be taken from group A or group B.

# Transferable skills (Wales)

## Essential skills (Wales)

	Minimum level	Credit value
Communication	Level 2	6
Application of numbers	Level 2	6
IT	Not Required	

## Progression routes into and from this pathway

### PROGRESSION INTO THIS PATHWAY:

Work based qualifications such as NVQs / SVQs / AVCEs (Vocational A' Levels) and BTEC Diplomas related to Extractives and Mineral Processing sector careers are widely available and all provide a good basis for entry to this pathway. GCSEs and A Levels also provide a solid base to build on, with subjects such as Art, Science and Design and Technology all seen as useful by employers, along with English, Mathematics, IT and Business Studies.

Applicants who have successfully completed a Foundation Level 2 Apprenticeship in Extractives and Mineral Processing would be considered suitable for progression to an Apprenticeship at Level 3. A Foundation/Higher or Advanced Diploma in Manufacturing and Product Design will provide an excellent route into the sector. In addition, the Construction and Built Environment Diplomas also provides an appropriate start for individuals interested in a career in the Extractives and Mineral Processing industry.

Some career pathways within the industry can be offered without qualifications, if a good impression is created at interview. Showing enthusiasm, good communication skills, providing proof of a mature attitude and problem solving skills can all help your chances. Many skills can be developed while you are employed if you have the right attitude. Previous work experience in a production industry, or a related discipline, is also a valuable foundation for entry into this pathway.

### PROGRESSION FROM THIS PATHWAY INCLUDE:

- Continuing to develop your technical skills and experience in Extractives and Mineral Processing and strive to "be the best" in your chosen occupational route and have pride in your work.



- Participating in relevant in-house company training or external learning, where available and/or offered.
- Broadening and developing your skill base by progression into other job roles within the Extractives and Mineral Processing industry - "horizontal progression"
- Progressing to Level 4 or 5 qualifications in either Extractives and Mineral Processing or in a related industry such as Geology or Engineering. This may also include Higher Apprenticeships.
- Undertaking a Higher/Advanced Diploma in Manufacturing and Product Design, Construction and the Built Environment or Creative and Media.
- Progressing into higher level jobs within the Extractives and Mineral Processing industry such as Plant manager , Surveyor, Deputy works manager, Shotfiring Supervisor, Health and Safety Advisor , Environmental Advisor or into other functional areas such as research and development for production methods, quality control marketing, sales, planning, procurement, finance or warehouse and distribution.
- Undertaking Assessor and Verifier qualifications.
- Undertaking further training in Management & Leadership, Lean Manufacturing or Business Improvement Techniques.
- Progressing to an industry related undergraduate programme e.g. Engineering, Science or Business Studies. **Entry may require additional training/learning.**

Take a closer look at your career options and progression opportunities in the Extractives and Mineral Processing Industry by visiting: [www.prospect4u.co.uk](http://www.prospect4u.co.uk)

### UCAS points for this pathway:

*(no information)*

# Employee rights and responsibilities

It is important that all employees understand and can demonstrate an understanding of their rights and responsibilities as an employee.

**The 9 required national outcomes/standards for ERR are that an Apprentice:**

1. Knows and understands the range of employer and employee statutory rights and responsibilities under Employment Law and that employment rights can be affected by other legislation as well.
2. Knows and understands the procedures and documentation in their organisation which recognise and protect their relationship with their employer.
3. Knows and understands the range of sources of information and advice available to them on their employment rights and responsibilities.
4. Knows and understands the role played by their occupation within their organisation and industry.
5. Has an informed view of the types of career pathways that are open to them.
6. Knows the types of representative bodies relevant to their industry and organisation, and their main roles and responsibilities.
7. Knows where and how to get information and advice on their industry, occupation, training and career.
8. Can describe and work within their organisation's principles and codes of practice.
9. Recognises and can form a view on issues of public concern that affect their organisation and industry.

Successful achievement of all 9 ERR national standards must be demonstrated and evidenced at the point of certification by the Assessor's completion of a verification sign off sheet confirming that all 9 ERR outcomes have been successfully achieved, demonstrated and evidenced by the Apprentice.

A copy of a suitable ERR workbook for the Extractives & Mineral Processing Industries is available to download from: [www.proskills.co.uk/qualifications/apprenticeships](http://www.proskills.co.uk/qualifications/apprenticeships) and it is recommended that this workbook is used for this framework.

If the Proskills ERR workbook is used, there is a suitable sign off sheet at the back of the booklet which, once appropriately signed and dated, is acceptable evidence for certification

purposes. Alternatively, if an alternative workbook/recording method is used then it must clearly meet all of the criteria and required outcomes as specified within the Proskills workbook. For those not using the Proskills ERR workbook, a separate ERR completion declaration form is available to download from: [www.proskills.co.uk/qualifications/apprenticeships](http://www.proskills.co.uk/qualifications/apprenticeships) and this must be completed and submitted as part of evidence for certification purposes.

**Time spent on ERR contributes towards meeting the minimum Learning Hours (LH) per year requirement for this pathway.**

Note: If a Provider wishes to deliver and demonstrate achievement of ERR by an Apprentice's completion of an accredited QCF unit, then the following unit would be suitable:

Unit Title: Employment Rights and Responsibilities in the Process and Manufacturing Industries

Unit Ref: F/602/3940

Credit Value: 3

GLH: 18

**NOTE: QCF units for ERR are also available from other Awarding Organisations**

*The remaining sections apply to all levels and pathways within this framework.*

# How equality and diversity will be met

## OVERVIEW

The delivery of an Apprenticeship framework must be in environments that are free from prejudice and discrimination where all learners can contribute fully and feel that their contribution to the industry is valued. There must be no discriminatory practices in the selection and recruitment of Apprentices to this programme. It is available to all people, regardless of age, gender, ethnic origin, religion/belief, sexual orientation or disability, who meet the stated selection criteria. This Extractive and Minerals Processing Industries Apprenticeship aims to promote diversity, opportunity and inclusion by offering a high-quality learning opportunity to all who meet the required entry conditions.

## ISSUES

The Extractives and Mineral Processing industries have remained relatively stable over the past few years. Their success depends heavily on the continued success of the construction industry. Workers in these industries tend to be full time and directly employed, rather than on a contract basis. Work is often shift based, especially at lower levels. Three quarters of workers in the industry are male. The largest occupational groups in the industry are: Process Plant and Machine Operatives, Senior Officials and Managers and those in Professional occupations.

The Extractives and Mineral Processing Industries operate an open recruitment policy but are currently not attracting, in sufficient numbers, female applicants, those from black and minority ethnic groups or those with a difficulty or disability. The industry recognises that it is not making the most of this pool of untapped talent, which could help the industries to meet their current and future skills gaps and shortages.

Another key challenge for the Extractives and Mineral Processing Industries is that the current workforce is ageing. 70% of workers are over the age of 35 and there is a particular shortfall of employees aged 16-24. Effective succession planning needs to start now in order to meet future gaps in the workforce as older workers leave the industry - attracting younger people into the industry now will be key to addressing this issue.

The “**Skills That Work For Wales**” strategy identifies that there is further work to be done to address the needs of young people not in education, employment or training, people with complex needs (such as offenders and ex-offenders) and adults who are unemployed or

economically inactive. Modern Apprenticeships continue to be the Welsh Assembly Government's preferred work based learning route and employers who do not appreciate the business benefits of diversity are missing out on a large pool of talented recruits.

## **BARRIERS**

The reasons for the imbalances in the current make up of the Extractives and Mineral Processing Industries workforce are largely down to its historical poor image and a misconception that jobs in these industries are carried out in dark, dirty and potentially dangerous environments. On the contrary, nowadays many of these industries are very high tech and make use of cutting edge, sophisticated computer technology to plan and control operations.

The wide range of challenging and varied career opportunities within the Extractives and Mineral Processing Industries are not widely known. It is not currently a career of choice for many first time job seekers or for those considering a career change. This is especially so in the case of young people. However, Extractives and Mineral Processing Industries of the 21st Century are very dynamic and progressive and have undergone major changes in working practices as a result of the introduction and development of cutting edge technologies and processes. The industries need to raise awareness of their innovativeness and diversity and to overcome current misconceptions.

## **ACTIONS**

Entry to careers in Extractives and Mineral Processing Industries are non-exclusive and there are no significant barriers to entry and progression within any of its occupational roles.

As a way of addressing the issue of attracting young people into the industry, Proskills has developed a number of Schools into Industry Programmes. These are industry-backed programmes designed to educate and engage young people in the world of process manufacturing and to raise awareness of the exciting and challenging career opportunities available within these industries.

**Digit! to BuildIT!** is a project-based competition for schools mapped to the national curriculum. It aims to familiarise students with the extractives and minerals processing industry and the building products industry – the sectors which form the supply chain to the construction industry. The project asks school students to identify the sources of material used in the construction of a significant building local to the school, for example, the town hall, football stadium or law courts. Students are also prompted to recommend alternative 'eco-friendly' materials to show their understanding of environmental issues.

Free, high-quality learning materials are provided, as well as existing materials from industry, such as Virtual Quarry from the Mineral Products Association and other employer-developed materials.

***The schools into industry programmes are currently running very successfully in England and, following a number of pilot schemes, there are plans to make them available to schools in Wales.***

For more information on DigIT! to BuildIT! please visit: [www.proskills.co.uk/schools-competitions](http://www.proskills.co.uk/schools-competitions)

The Proskills career website [www.prospect4u.co.uk](http://www.prospect4u.co.uk) has been developed to help raise the profile and set the skills standards and qualifications for the Extractives and Mineral Processing sector and ensures that the skills system delivers against the current and future needs of the industries it represents. The sector is full of exciting and rewarding career opportunities and this website helps individuals to find all the information they need about getting started in any of these innovative industries.

Proskills regularly attend regional and national careers fairs and skills events to promote Apprenticeships. This provides an ideal opportunity to actively address equality and diversity issues within all of their industries.

This Extractives and Mineral Processing Industries Apprenticeship framework is seen as a vital route to encourage and facilitate a greater diversity of individuals into the industry and a current marketing plan is in place to widely promote Apprenticeships and to increase take-up figures by raising awareness of the opportunities available within these exciting and developing industries.

This framework is also suitable for those already working in the industry and offers an opportunity for individuals to develop and expand their skills and knowledge, facilitate and encourage their progression within the industry and to contribute to workforce retention and succession planning.

# On and off the job training (Wales)

## Summary of on- and off-the-job training

### LEGAL REQUIREMENT

The Specification of Apprenticeship Standards for Wales (SASW) states that an Apprenticeship framework must specify the minimum number of on-the-job training hours and the minimum number of off-the-job training hours an Apprentice must receive to complete the framework and how these are to be evidenced. An Apprenticeship framework must specify that on-and off-the-job training must either have been received:

a. Whilst working under an Apprenticeship Agreement;

or

b. During a qualifying period ending on the date of application for an Apprenticeship Certificate. A qualifying period of five years is recommended, but to meet the needs of their sector, frameworks may set a shorter or longer timescale than five years as the qualifying period.

Within Wales no distinction is made between whether the on-the-job or off-the job training hours relate to the competencies qualification or the technical knowledge qualification: what is important is that a framework gives both the prospective apprentice and the employer an accurate indication of the nature of the learning commitment required to complete the framework and become competent.

### All On and Off The Job training should:

1. Be planned, reviewed and evaluated jointly between the Apprentice and a tutor, teacher, workplace supervisor or manager and, where relevant, the Apprentice's coach or mentor.
2. Allow the Apprentice access to support from a tutor, teacher, mentor or manager, as and when required by the Apprentice.
3. Be completed while working under an Apprenticeship Agreement and delivered during contracted working hours.
4. Be delivered through one or more of the following methods: individual and group

teaching, distance learning, e-learning, coaching, mentoring, feedback and assessment, collaborative/networked learning with peers and guided study.

5. Be systematically and formally recorded. For example, in a log book or diary, completed attendance records or on an electronic/online recording system, witness testimonies or video recordings.

***Please note that many of the pathways show a LH range. This is because many of the pathways have a choice of competency or knowledge qualifications to be achieved and each qualification has its own individual LH value.***

The minimum recommended **total learning hours** (LH, includes both on and off the job learning) **per year** for each pathway in the **Foundation Level 2** Extractive and Minerals Processing are as follows:

**Pathway 1 Mining Operations:** 362 - 386 (depending on competency qualification)

**Pathway 2 Fixed Plant Operations:** 407 - 775 (depending on competency qualification)

**Pathway 3 Mobile Plant Operations:** 408 - 1043 (depending on competency qualification)

**Pathway 4 Extractives Drill Rig Operations:** 681

**Pathway 5 Mines Rescue:** 551

**Pathway 6 Blasting Operations:** 461

The minimum recommended **total learning hours** (LH, includes both on and off the job learning) **per year** for each pathway in the **Level 3** Extractive and Minerals Processing are as follows:

**Pathway 1 Mines - Electrical:** 1413 - 2013 (depending on knowledge qualification)

**Pathway 2 Mines - Mechanical:** 1470 - 2070 (depending on knowledge qualification)

**Pathway 3 Mines Shotfiring:** 708

**Pathway 4 Mines Maintenance Supervision:** 1270 - 1870 (depending on knowledge qualification)

**Pathway 5 Processing Plant Supervision:** 1081 - 1133 (depending on competency qualification)

**Pathway 6 Shotfiring:** 698 - 799 (depending on competency qualification)

**Pathway 7 Mines- Electrical- Potash:** 1268 - 1868 (depending on knowledge qualification)

**Pathway 8 Mines- Mechanical- Potash:** 1325 - 1925 (depending on knowledge qualification)

***Please note that all of the above totals include both on and off the job learning and that all Apprentices will be assessed on their own abilities and previous experience and some of the learning hour requirements may need to be altered to take account of prior learning, existing qualifications and an individual's experience.***



## Off-the-job training

### OFF THE JOB TRAINING HOURS

**OFF THE JOB** training is defined as time for learning activities which take place outside of normal work duties. Off-the-job training may include any activity where an Apprentice receives any form of instruction, tuition, assessment or progress reviews. For example, (but not exclusively) private study, coaching, mentoring, e-learning, distance learning or classroom training may count as off-the-job training.

An Apprenticeship framework may specify that off-the-job training undertaken before the Apprentice started their Apprenticeship may count towards the off-the-job training required for the Apprenticeship if it was undertaken in relation to an accredited qualification contained in the framework for which an Apprenticeship Certificate is to be applied for.

For the pathways in the **Level 2 Foundation** Extractive and Minerals Processing Framework the minimum recommended amount of annual **off the job** training hours are as follows:

**Pathway 1 Mining Operations:** For this pathway, an Apprentice will need to complete a recommended minimum of 302 LH off the job.

**Pathway 2 Fixed Plant Operations:** For this pathway, an Apprentice will need to complete a recommended minimum of 302 LH off the job.

**Pathway 3 Mobile Plant Operations :** For this pathway, an Apprentice will need to complete a recommended minimum of 302 LH off the job.

**Pathway 4 Extractives Drill Rig Operations:** For this pathway, an Apprentice will need to complete a recommended minimum of 302 LH off the job.

**Pathway 5 Mines Rescue:** For this pathway, an Apprentice will need to complete a recommended minimum of 302 LH off the job.

**Pathway 6 Blasting Operations:** For this pathway, an Apprentice will need to complete a recommended minimum of 310 LH off the job.

For the pathways in the **Level 3** Extractive and Minerals Processing Framework the minimum recommended amount of annual **off the job** training hours are as follows:

**Pathway 1 Mines - Electrical:** For this pathway, an Apprentice will need to complete a recommended minimum of 732 LH off the job.

**Pathway 2 Mines - Mechanical:** For this pathway, an Apprentice will need to complete a

recommended minimum of 732 LH off the job.

**Pathway 3 Mines Shotfiring** : For this pathway, an Apprentice will need to complete a recommended minimum of 342 LH off the job.

**Pathway 4 Mines Maintenance Supervision**: For this pathway, an Apprentice will need to complete a recommended minimum of 732 LH off the job.

**Pathway 5 Processing Plant Supervision**: For this pathway, an Apprentice will need to complete a recommended minimum of 342 LH off the job.

**Pathway 6 Shotfiring**: For this pathway, an Apprentice will need to complete a recommended minimum of 342 LH off the job.

**Pathway 7 Mines - Electrical - Potash**: For this pathway, an Apprentice will need to complete a recommended minimum of 732 LH off the job.

**Pathway 8 Mines - Mechanical - Potash**: For this pathway, an Apprentice will need to complete a recommended minimum of 732 LH off the job.

## How this requirement will be met

**OFF THE JOB** training hours delivered under an Apprenticeship Agreement may vary depending on the previous experience and attainment of the individual Apprentice. As such, the stated minimum requirement of hours for off the job learning may be reduced accordingly. However, the minimum hours required in total for off the job training for this framework must still be able to be verified as part of the certification process.

## PREVIOUS ATTAINMENT

If a learner enters an Apprenticeship Agreement having previously attained part, or all, of the relevant qualifications contained therein, then this prior learning need can be recognised using either a QCF Credit transfer (where appropriate) or through recording of exemptions for certificated learning that is outside of the QCF. For example, Principal Learning qualifications.

For learners that have previously achieved the relevant qualifications, they must have attained these within 3 years of applying for the Apprenticeship Certificate. This is to ensure the currency of their previous attainment.

## PREVIOUS EXPERIENCE

If a learner enters an Apprenticeship Agreement with previous work-related experience, this

prior learning needs to be recognised but, in order to count towards an Apprenticeship certification, it does need to be recorded using the correct procedures. Please contact the appropriate Awarding Body for details of their "Recognition of Prior Learning" procedures. For more information on QCF Guidance on Claiming Credit please visit :

[www.qcda.gov.uk/resources/4374.aspx](http://www.qcda.gov.uk/resources/4374.aspx)

For learners with prior uncertificated learning experience, the off the job learning must have been attained within 3 years of applying for an Apprenticeship Certificate. Alternatively, they should have been continuously employed in the relevant job role in the industry for 3 years duration.

***The recommended minimum Off The Job learning hours (LH) for each component is shown in brackets. However, please note that all Apprentices will be assessed on their own abilities and previous experience and some of the learning hours requirements may need to be altered in order to accommodate prior learning, qualifications and experience.***

The **OFF THE JOB** learning hours for the **Level 2 Foundation framework** could consist of the following:

- Level 2 Award in An Intro to Mining in the Extractives and Minerals Processing Industries **or**  
Level 2 Award in An Intro to Mineral Processing in the Extractives and Minerals Processing Industries **or** Level 2 Award in An Intro to Plant Operations in the Extractives and Minerals Processing Industries **or**  
Level 2 Award in An Intro to Drilling Operations in the Extractives and Minerals Processing Industries (all have 88 LH) **or**  
Level 2 Award in An Intro to Blasting in the Extractives and Minerals Processing Industries (96 LH)
- ERR (18 LH)
- Level 1 or Level 2 Essential Skill Wales in Communication (alternatively Key Skill Level 1 or Level 2 Communication)\* (60 LH)
- Level 1 or Level 2 Essential Skill Wales in Application of Number (alternatively Key Skill Level 1 or Level 2 Application of Number)\* (60 LH)
- Company training - this will include induction, ERR, Health & Safety and any relevant practical and technical training. Attendance on any training or instructional learning sessions away from the Apprentice's workstation - this could be on or off site. (30 LH)
- Mentoring (approx 1 hour per week for the duration of the framework) (40 LH)

- Appraisal/Assessment relating to the Apprentice's participation and progress in the framework (approx 2 hrs quarterly, dependent on individual support needs) (6 LH)

**\* NB: Key Skills qualifications can be accepted as alternatives to Essential Skills Wales qualifications, where they have been achieved before 31st August 2011.**

## **EVIDENCE FOR OFF THE JOB LEARNING - LEVEL 2**

- Copy of certificate for appropriate Level 2 knowledge qualification.
- Copies of certificates for Essential Skills Wales Communication and Application of Number (or qualifying Key Skills certification)
- Copy of completed and signed ERR booklet (if used). Alternatively, verified evidence that all 9 national ERR outcomes have been achieved.
- Log book, diary, portfolio evidence recorded by the Apprentice documenting off the job coaching, mentoring and support received. This can include evidence of where off the job learning opportunities and/or activities have been met.
- Course attendance records for both on-site and off site training/learning interventions (records may be held electronically)
- Witness testimonies, video footage or any other authorised and valid mode of supporting evidence that required off the job training hours have been carried out.
- Verification from Providers that they are satisfied that the recommended minimum requirements for off the job learning hours for company training, mentoring, review and appraisal have been fulfilled and details of how any additional types of off the job training has been achieved (e.g. mentoring, appraisal, assessment, off workstation instruction etc).

The **OFF THE JOB** learning hours for the Level 3 framework could consist of the following:

- Level 3 Certificate in Extractives and Minerals Processing Industries (90-98 LH)  
**FOR PATHWAYS 3,5 & 6 or ....**  
**One of the Level 3 Engineering qualifications FOR PATHWAYS 1,2,4, 7 & 8(480 - 1080 LH)**
- ERR - (18 LH)
- Level 2 Essential Skill Wales in Communication (alternatively Key Skill Level 2 Communication)\*  
(60 LH)

- Level 2 Essential Skill Wales in Application of Number (alternatively Key Skill Level 2 Application of Number)\* (60 LH)
- Company training - this will include induction, ERR, Health & Safety and any relevant practical and technical training. Attendance on any training or instructional learning sessions away from the Apprentice's workstation - this could be on or off site (45 LH)
- Mentoring (approx 1 hour per week for the duration of the framework) (60 LH)
- Appraisal/Assessment relating to the Apprentice's participation and progress in the framework (approx 2hrs quarterly, dependent on individual support needs) (9 LH)

**\* NB: Key Skills qualifications can be accepted as alternatives to Essential Skills Wales qualifications, where they have been achieved before 31st August 2011.**

### **EVIDENCE FOR OFF THE JOB LEARNING - Level 3**

- Copy of certificate for appropriate Level 3 knowledge qualification.
- Copies of certificates for Essential Skills Wales Communication and Application of Number (or qualifying Key Skills certification)
- Copy of completed and signed ERR booklet (if used). Alternatively, verified evidence that all 9 national ERR outcomes have been achieved.
- Log book, diary, portfolio evidence recorded by the Apprentice documenting off the job coaching, mentoring and support received. This can include evidence of where off the job learning opportunities and/or activities have been met.
- Course attendance records for both on-site and off site training/learning interventions (records may be held electronically)
- Witness testimonies, video footage or any other authorised and valid mode of supporting evidence that required off the job training hours have been carried out.
- Verification from Providers that they are satisfied that the recommended minimum requirements for off the job learning hours for company training, mentoring, review and appraisal have been fulfilled and details of how any additional types of off the job training has been achieved (e.g. mentoring, appraisal, assessment , off workstation instruction etc).

All **Off the Job learning** must be formally recorded in either a diary, workbook, portfolio,

course attendance records or by an electronic recording system. This evidence needs to be checked, verified and signed off as valid by all relevant parties. For example, the Apprentice, their Employer, the Provider and Assessor. It can also be checked by the External Verifier.

Evidence of the off the job learning hours **may** be requested when applying for an Apprenticeship Completion Certificate.

## On-the-job training

**ON THE JOB** training includes workplace activity where skills, knowledge and competencies are being gained and applied in the course of an Apprentice's normal work duties.

For this Extractives and Minerals Processing framework the annual minimum required amount of on the job learning hours are:

***Please note that many of the pathways show a LH range. This is because many of the pathways have a choice of competency qualifications and each has its own individual LH value.***

### ON THE JOB LH FOR LEVEL 2 PATHWAYS

**Pathway 1 Mining Operations:** a recommended minimum of 60 - 84 LH On The Job (depending on competency qualification)

**Pathway 2 Fixed Plant Operations:** a recommended minimum of 105 - 473 LH On The Job (depending on competency qualification)

**Pathway 3 Mobile Plant Operations:** a recommended minimum of 106 - 741 LH On The Job (depending on competency qualification)

**Pathway 4 Extractives Drill Rig Operations:** a recommended minimum of 379 LH On The Job

**Pathway 5 Mines Rescue:** a recommended minimum of 249 LH On The Job

**Pathway 6 Blasting Operations:** a recommended minimum of 151 LH On The Job

### ON THE JOB LH FOR LEVEL 3 PATHWAYS

**Pathway 1 Mines - Electrical:** a recommended minimum of 681 LH On The Job

**Pathway 2 Mines - Mechanical:** a recommended minimum of 738 LH On The Job

**Pathway 3 Mines Shotfiring:** a recommended minimum of 366 LH On The Job

**Pathway 4 Mines Maintenance Supervision:** a recommended minimum of 538 LH On The Job

**Pathway 5 Processing Plant Supervision:** a recommended minimum of 739-791 LH On The Job (depending on competency qualification)

**Pathway 6 Shotfiring:** a recommended minimum of 356-457 LH On The Job (depending on competency qualification)

**Pathway 7 Mines - Electrical - Potash:** a recommended minimum of 762 LH On The Job

**(NB: 2 competency qualifications are required for this pathway)**

**Pathway 8 Mines - Mechanical - Potash:** a recommended minimum of 819 LH On The Job

**(NB: 2 competency qualifications are required for this pathway)**

## How this requirement will be met

**ON THE JOB** training hours delivered under an Apprenticeship Agreement may vary depending on the previous experience and attainment of the individual Apprentice. As such, the stated minimum requirement of hours for on the job learning may be reduced accordingly. However, the minimum hours required in total for on the job training for this framework must still be able to be verified as part of the certification process and an Apprentice's occupational competence demonstrated and evidenced.

**On The Job** training may include any activity where an Apprentice receives any form of instruction, tuition, guidance, support or feedback whilst carrying out their day-to-day job role. Typically, it consists of an Apprentice successfully meeting and demonstrating all of the skills and competencies contained in the competency qualification relevant to their chosen pathway and any time spent receiving regular, constructive on the job support, feedback and review on their job related performance.

## PREVIOUS ATTAINMENT

If a learner enters an Apprenticeship Agreement having previously attained part, or all, of the relevant qualifications contained therein, then this prior learning need can be recognised using either a QCF Credit transfer (where appropriate) or through recording of exemptions for certificated learning that is outside of the QCF. (Same as above for off the job) For learners that have previously achieved the relevant qualifications, they must have been certified within 3 years of applying for an Apprenticeship Certificate.

Apprentices who commence training under an Apprenticeship Agreement with an employer may bring a range of prior experience with them. When an Apprentice can claim 30% (or more) of the total on the job training hours required for their chosen pathway then their learning programme should be tailored accordingly. Prior learning could have been acquired from previous education, employment or other vocational programmes. Training Providers are encouraged to identify specific on the job training opportunities that customise and contextualise the Apprentice's prior learning to their new workplace and job role. This may include selecting appropriate additional units from QCF qualifications relevant to the workplace or Essential Skills at a higher level than that specified in the framework.

All of the job roles within this Apprenticeship framework require a thorough level of technical

skills, competence and knowledge and this will be gained through on the job, work based training, practice and experience and reinforced by regular feedback, review and support from an Apprentice's work based mentor or identified support network.

**\* NB: Key Skills qualifications can be accepted as alternatives to Essential Skills Wales qualifications, where they have been achieved before 31st August 2011.**

The **ON THE JOB** learning for pathways in the **Level 2 Foundation** framework will consist of the following:

- Achievement of the relevant competency qual (variable LHs).
- Regular on the job support, feedback, reviews, mentoring etc (40 LH).

### **EVIDENCE FOR ON THE JOB LEARNING - Level 2**

- Copy of certificate for the appropriate Level 2 competency qualification
- Log book, diary, portfolio evidence recorded by the Apprentice documenting on the job coaching, mentoring and support received. This can include evidence of where on the job learning opportunities and/or activities relating to ERR have been met.
- Witness testimonies, video footage or any other authorised and valid mode of supporting evidence that required on the job LH has been carried out.

The **ON THE JOB** learning for pathways in the **Level 3** framework will consist of the following:

- Achievement of the relevant Level 3 competency qual (variable LHs).  
**NB: 2 competency quals are required for Pathways 7 & 8**
- Regular on the job support, feedback, reviews, mentoring etc (60 LH).

### **EVIDENCE FOR ON THE JOB LEARNING - Level 3**

- Copy of certificate for the relevant Level 3 competency qualification.  
**NB: 2 competency qual certs are required for Pathways 7 & 8**
- Log book, diary, portfolio evidence recorded by the Apprentice documenting on the job coaching, mentoring and support received. This can include evidence of where on the job learning opportunities and/or activities relating to ERR have been met.
- Witness testimonies, video footage or any other authorised and valid mode of supporting evidence that required on the job LH has been carried out.

In order to facilitate the recording and evidencing of On The Job LH, an organisation may choose to nominate an "Accountable Manager" (such as the company Training Manager, or



someone who is part of the company management team) to take responsibility for regularly checking that an Apprentice has completed at least the recommended minimum number of On The Job LH (or pro rata, if appropriate). They can use the Apprentice's log book/diary as a good source of supporting evidence. Assessors also have a responsibility to verify satisfactory completion of On The Job LH.

Evidence of the on the job learning hours **may** be requested when applying for an Apprenticeship Completion Certificate.

# Wider key skills assessment and recognition (Wales)

## Improving own learning and performance

There is currently no requirement for the Wider Key Skill of "**Improving Own Learning and Performance**" as it is felt that this is adequately covered by an Apprentice's completion of the other component parts of this Apprenticeship framework. For example, the achievement of the relevant competency and knowledge qualifications (including ERR) and participation in employer specific induction programmes and all on and off the job learning experiences should all provide opportunities for Apprentices to improve their own learning and performance.

## Working with others

There is currently no requirement for the Wider Key Skill of "**Working With Others**" as it is felt that this is adequately covered by an Apprentice's completion of the other component parts of this Apprenticeship framework. For example, the achievement of the relevant competency and knowledge qualifications (including ERR) and participation in employer specific induction programmes and all on and off the job learning experiences should all provide opportunities for Apprentices to work with others.

## Problem solving

There is currently no requirement for the Wider Key Skill of "**Problem Solving**" as it is felt that this is adequately covered by an Apprentice's completion of the other component parts of this Apprenticeship framework.

For example, the achievement of the relevant competency and knowledge qualifications (including ERR) and participation in employer specific induction programmes and all on and off the job learning experiences should all provide opportunities for Apprentices to problem solve.

# Additional employer requirements

There are no additional employer requirements for this framework.

---

apprenticeship  
FRAMEWORKS ONLINE

For more information visit  
[www.afo.sscalliance.org](http://www.afo.sscalliance.org)