

apprenticeship FRAMEWORK

Extractives and Mineral Processing Occupations

IMPORTANT NOTIFICATION FOR ALL APPRENTICESHIP STARTS FROM 14 OCTOBER 2016

Modifications to SASW came into effect on 14 October 2016. These changes relate to the **Essential Skills and Employer Rights and Responsibilities** requirements of a framework and they **ONLY** apply to new Apprenticeship starts on, or after, 14th October. Apprenticeship starts before this date must continue to meet the 2013 SASW requirements for Essential Skills and Employer Rights and Responsibilities.

For more details of the changes and how they will affect new apprenticeship starts, please read the following preface page to the framework document. NB: Please check the "Revising a Framework" section for information on any additional changes that may have been made to this framework.

Latest framework version?

For any previous versions of this framework: www.acwcerts.co.uk/framework_library

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Extractives and Mineral Processing Occupations

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Framework information

Information on the Issuing 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: 7	This framework includes:
Framework ID: FR02911	Level 2 <input checked="" type="checkbox"/> Level 3 <input checked="" type="checkbox"/> Level 4-7 <input type="checkbox"/>
Date this framework is to be reviewed by: 30/06/2017	This framework is for use in: Wales

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 Extractive Mineral Processing and related Manufacturing 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 was originally developed and published by Proskills UK. The Standard Setting Organisation for the Extractive, Mineral Processing and related Manufacturing Industries is now the Mineral Products Qualifications Council (MP Futures), which has been asked by its governing body to review and where appropriate revise all the Apprenticeship Frameworks for the sector.

Consultation on the Framework has involved presentations at meetings, email consultation and promotion through web-based consultation with employers and other stakeholders.

Those consulted include:

1. extractives industries employers including Lafarge Tarmac, Cemex, Hanson, Aggregate Industries, Breedon Aggregates, Hills Group, Bretts, Cleveland Potash, Saint Gobain, Hope Construction Materials, Sibelco
2. other stakeholders including the Mineral Products Association, British Aggregates Association, Coalpro, British Precast Concrete Federation, Concrete Society, Institute of Quarrying

Developer of this framework

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Revising a framework

Why this framework is being revised

[The industry recognised Standard Setting Organisation is now the Mineral Products Qualifications Council.

There have been several changes in QCF qualifications (withdrawals and approvals) that are appropriate for this framework.]

Summary of changes made to this framework

[The following changes have been made and should apply from 1st November 2014

Updated contact details; change of industry representative organisation

Updated pathways and qualifications details

Revised equality actions

Updated Summary of the Purpose

Other minor amendments to update detail

L3 Apprenticeship: Pathways 7 and 8 removed as there is no Potash mining in Wales.

L3 Apprenticeship in Processing Plant Supervision removed as this competence qualifications have been withdrawn.

Updated ERR requirement.]

Qualifications removed

[The following qualifications have been removed; this should apply from 1st November 2014

- PAA\VQSET Level 2 NVQ Diploma in Standard Processing Operations for the Extractive and Minerals Processing Industries (QCF) 501/1275/2. Withdrawn from QCF by PAA\VQSET.
- MPQC Level 3 Diploma for Shotfiring in Construction 600/1347/3. Withdrawn from framework as this is not an Extractives qualification.

Qualifications added

The following qualifications have been added; this should apply from 1st November 2014.

- MPQC Level 2 NVQ Diploma in Basic Processing Operations for the Extractive and Minerals Processing Industries (QCF)
- MPQC Level 2 NVQ Diploma in Complex Processing Operations for the Extractive and Minerals Processing Industries (QCF)
- MPQC Level 2 Certificate in Precast and Prestressed Concrete Unit Manufacture (QCF)
- FAQ Level 2 Award In Employee Rights and Responsibilities (QCF)
- FDQ Level 2 Award In Employee Rights and Responsibilities (QCF)
- iCQ Level 2 Award in Employee Rights and Responsibilities (QCF)
- IMIAL Level 2 Award In Employee Rights and Responsibilities (QCF)
- ITEC Level 2 Award in Employee Rights and Responsibilities (QCF)
- NCFE Level 2 Award in Employee Rights and Responsibilities (QCF)
- NOCN Level 2 Award in Employee Rights and Responsibilities (QCF)
- VTCT Level 2 Award in Employee Rights and Responsibilities (QCF)

Qualifications that have been extended

None

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. Wales has had a long history of extracting and processing its rich mineral resources. 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, rock and open cast coal sites, from mines for coal, salt and other minerals or by dredging from the sea bed for sand and gravel. Materials 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. Minerals are also extensively used in other manufacturing industries and in agriculture. Such is the importance of the materials quarried and mined.

The Extractive, Minerals Processing and related Manufacturing Industries are very diverse and can be divided into a number of different sub-sectors. For example, in the United Kingdom the industry covers:

- Deep coal mines and opencast coal working
- Quarrying of aggregates for construction
- Extraction and agglomeration of peat
- Manufacture of solid fuel
- Mining of iron ore and non-ferrous metal ores
- Quarrying of ornamental and building stone, and slate
- Operation of sand and gravel pits
- Quarrying of clays and kaolin
- Quarrying of silica and foundry sands
- Production of chemical and fertilizer minerals (salt, potash, gypsum, chalk, lime, barytes)
- Recycling of construction demolition waste, slags and glass
- Manufacture of asphalt and related coated products
- Manufacture of cement, plaster, ready-mixed concrete and mortars
- Manufacture of precast and prestressed concrete products
- Cutting, shaping and finishing of ornamental and building stone

- Off-shore dredging for sand and gravel
- Other mining, quarrying and processing activities.

Currently quarrying and mining employs nearly 50 thousand people in the UK and a further 20 thousand in jobs related to the industry. 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 and industrial minerals per year. There are also approaching 100 mines. Wales accounts for approximately 8% of the totals.

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 and environmental 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.

The Mineral Products Qualifications Council works with employers from the Extractive, Minerals Processing and related Manufacturing Industries to help businesses improve their productivity and competitiveness through skills training.

Currently almost all 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 Extractive, Minerals Processing and related Manufacturing 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 Extractive, Minerals Processing and related Manufacturing Industries address the following:

- Skills shortages, particularly as the industry recovers from the recession and needs to increase production
 - To meet constantly changing consumer demands and preferences
 - To address changes in technology and working practices
 - 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 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 Extractive, Minerals Processing and related Manufacturing Industries. 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 Extractive, Minerals Processing and related Manufacturing Industries 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.]

Aims and objectives of this framework (Wales)

[The aim of this framework is to meet the current skills gaps and changing skills needs of employers in the Extractive, Minerals Processing and related Manufacturing Industries by attracting new recruits from a range of diverse backgrounds and to upskill the existing workforce to ensure that they have the required competence (skills, knowledge and experience) to help businesses in the Extractive, Minerals Processing and related Manufacturing Industries 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 craft skills. They will have transferable skills, gained as a result of both academic study and practical on-the-job experience.

To attract new recruits into the Extractive, Minerals Processing and related Manufacturing 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 Extractive, Minerals Processing and related Manufacturing 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 Extractive, Minerals Processing and related Manufacturing 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 Extractive, Minerals Processing and related Manufacturing Industries 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 Baccaulaureate - 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 Extractive, Minerals Processing and related Manufacturing 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 Extractive, Minerals Processing and related Manufacturing Industries 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 the 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 Minimum Credit Value = 47

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)
Face Worker	Operate mining machines that rip coal, metal and non-metal ores, rock, stone, or sand from the mine face and load it onto conveyors or into shuttle cars
Locomotive Driver	Drive and operate a locomotive in a mine.
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 Guard	Ensures the safe operation of locomotives in the mine.
FSV Driver	Drives an underground vehicle which can transport minerals, materials or supplies. Vehicle can also be used for other operations with the aid of attachments.
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 received/ issued / returned.
Continuous Mining Operator	Operates continuous 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	Installs equipment to 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
Development Worker	Carries out preparatory operations including excavation and installation of equipment and services required for extraction from new areas of the mine.
Dinter	Carries out maintenance and rectification of mine roadway surfaces.
Sampler	Collects samples of minerals, gasses and liquids for testing.
Track / road layer	Lays and maintains rails/platework etc. to allow locomotives and other vehicles to move around the mine workings.
Rope Haulage Engine Driver	Operates rope haulage equipment.
Rope Haulage Engine Guard	Ensures the safe operation of rope haulage systems.

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	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	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 qualification, Apprentices must achieve all 3 mandatory units.

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

Essential Skills

An apprenticeship framework must specify as a Welsh certificate requirement the expected achievement levels of Essential Skills in Communication and the Application of Number.

Where Essential Skills qualifications are specified in an apprenticeship framework, the apprenticeship framework must specify the acceptance of a recognised proxy qualification for Communication and Application of Number.

Communication

For the current list of acceptable proxy qualifications and appropriate **minimum** grade/level requirements, please refer to the most recent version of [SASW](#) on the [gov.wales](#) website. Additional guidance materials can be found on the [Knowledge Base](#) section of the [ACW](#) website.

Does this framework require Communication achievement above the minimum SASW requirement? **YES** **NO**

If YES, please state the grade/level required for English and give a brief **REASON** as to why this is required: [Enter alternative grade/level requirements and reasons here.]

Application of Number

For the current list of acceptable proxy qualifications and appropriate **minimum** grade/level requirements, please refer to the most recent version of [SASW](#) on the [gov.wales](#) website. Additional guidance materials can be found on the [Knowledge Base](#) section of the [ACW](#) website.

Does this framework require Application of Number achievement above the minimum SASW requirement? **YES** **NO**

If YES, please state the grade/level required for Maths and give a brief **REASON** as to why this is required: [Enter alternative grade/level requirements and reasons here.]

Inclusion of Digital Literacy (ICT)

Digital Literacy (ICT) is an **optional** framework requirement.

Is Digital Literacy a requirement in this framework? **YES** **NO**

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 QCF (Purpose D) qualifications / 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 Science 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 Extractive, Minerals Processing and related Manufacturing Industries. In addition, the Construction and Built Environment Foundation / Higher Diploma also provides an excellent platform for individuals interested in progression into the Extractive, Minerals Processing and related Manufacturing Industries.

Previous work experience in the Extractive, Minerals Processing and related Manufacturing Industries, or a related discipline, is also a valuable foundation for entry into this pathway.

Many Extractive, Minerals Processing and related Manufacturing Industries 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 Extractive, Minerals Processing and related Manufacturing Industries they will be required to work in a quarrying, mining or manufacturing 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 Extractive, Minerals Processing and related Manufacturing Industries employers.

PROGRESSION FROM THIS PATHWAY INCLUDES:

- Continuing to develop your craft and technical skills and experience in Extractive,

Minerals Processing and related Manufacturing Industries 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 Extractive, Minerals Processing and related Manufacturing Industries - "horizontal progression"
- Progressing into higher level jobs within the Extractive, Minerals Processing and related Manufacturing Industries such as Plant Supervisor, Mines Supervisor, Mine Engineering Technician, or into other functional areas such as research and development for production methods, quality control, 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.

UCAS points for this pathway:

Employee rights and responsibilities

Please note that for Apprenticeship starts from 14/10/2016 onwards ERR is no longer a **mandatory** requirement in all frameworks.

However, it may still be included in some frameworks and where it is not explicitly stated that ERR is not a requirement then confirmation of an Apprentice's ERR achievement will still remain a requirement for Apprenticeship certification purposes.

Is ERR a requirement for this framework? **YES** **NO**

Delivery and assessment

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.

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

The apprentice's achievement of the ERR must be demonstrated by achievement of a recognised qualification. The recognised qualifications are currently:

- 600/5845/6 FAQ Level 2 Award In Employee Rights and Responsibilities (QCF)
- 600/5619/8 FDQ Level 2 Award In Employee Rights and Responsibilities (QCF)
- 600/6599/0 iCQ Level 2 Award in Employee Rights and Responsibilities (QCF)
- 600/6291/5 IMIAL Level 2 Award In Employee Rights and Responsibilities (QCF)
- 600/6451/1 ITEC Level 2 Award in Employee Rights and Responsibilities (QCF)
- 600/4999/6 NCFE Level 2 Award in Employee Rights and Responsibilities (QCF)
- 600/7826/1 NOCN Level 2 Award in Employee Rights and Responsibilities (QCF)
- 600/5598/4 VTCT Level 2 Award in Employee Rights and Responsibilities (QCF)

NOTE: QCF units for ERR are also available from other Awarding Organisations. Should the provider wish to use an alternative qualification, which must have at least the minimum of 4 credits and 32 guided learning hours, they should apply to the Mineral Products Qualifications Council. |

Level 2, Pathway 2: Fixed Plant Operations

Description of this pathway

Fixed Plant Operations

Total Minimum Credit Value = 45

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 specification and order requirements, depending on type of plant. Process materials in variety of ways: Crushing/Screening & Washing, Drying, Concrete/ Asphalt Production, Density/Fluid /Chemical Separation, Forming, Heat Treatment, Splitting/ Shaping & Packaging

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	N/A

C3 – 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
C3a	501/0743/4	MPQC	89	381	N/A

C4 – Level 2 Diploma in Ready Mixed Concrete Production

No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
C4a	600/1106/3	MPQC	91	414	N/A

C5 – Level 2 NVQ Diploma in Basic Processing Operations for the Extractive and Minerals Processing Industries (QCF)

No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
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No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
C5a	501/1333/1	MPQC	37	203	N/A

C6 – Level 2 NVQ Diploma in Complex Processing Operations for the Extractive and Minerals Processing Industries (QCF)

No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
C6a	501/1331/8	MPQC	91	583	N/A

C7 – Level 2 Certificate in Precast and Prestressed Concrete Unit Manufacture (QCF)

No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
C7a	600/4716/1	MPQC	17	69-84	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 (QCF)

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 or C6 or C7

COMPETENCE:

There are a number of different competency qualifications available. The choice of which one an Apprentice 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. C6 only applies where the Apprentice is being trained on a process that involves several stages (for example the processing of china clay), and they are required to be competent in all the stages of processing.

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

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

- C3: Level 2 NVQ Diploma in Basic Processing Operations for the Extractive and Minerals Processing Industries:

To achieve this qualification Apprentices must achieve 37 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 Apprentices 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:

Apprentices 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.

- C6: Level 2 NVQ Diploma in Complex Processing Operations for the Extractive and Minerals Processing Industries:

To achieve this qualification Apprentices must achieve 91 Credits from 5 Mandatory Units.

- C7 - Level 2 Certificate in Precast and Prestressed Concrete Unit Manufacture (QCF)

To achieve the qualification Apprentices must achieve 25 credits, 15 of which from 10 mandatory units, plus 10 credits from optional units.

KNOWLEDGE:

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

Essential Skills

An apprenticeship framework must specify as a Welsh certificate requirement the expected achievement levels of Essential Skills in Communication and the Application of Number.

Where Essential Skills qualifications are specified in an apprenticeship framework, the apprenticeship framework must specify the acceptance of a recognised proxy qualification for Communication and Application of Number.

Communication

For the current list of acceptable proxy qualifications and appropriate **minimum** grade/level requirements, please refer to the most recent version of [SASW](#) on the [gov.wales](#) website. Additional guidance materials can be found on the [Knowledge Base](#) section of the [ACW](#) website.

Does this framework require Communication achievement above the minimum SASW requirement? YES NO

If YES, please state the grade/level required for English and give a brief **REASON** as to why this is required: Enter alternative grade/level requirements and reasons here.

Application of Number

For the current list of acceptable proxy qualifications and appropriate **minimum** grade/level requirements, please refer to the most recent version of [SASW](#) on the [gov.wales](#) website. Additional guidance materials can be found on the [Knowledge Base](#) section of the [ACW](#) website.

Does this framework require Application of Number achievement above the minimum SASW requirement? YES NO

If YES, please state the grade/level required for Maths and give a brief **REASON** as to why this is required: Enter alternative grade/level requirements and reasons here.

Inclusion of Digital Literacy (ICT)

Digital Literacy (ICT) is an **optional** framework requirement.

Is Digital Literacy a requirement in this framework? YES NO

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 QCF (Purpose D) qualifications / 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 Baccaulaureate, 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 Science 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 Extractive, Minerals Processing and related Manufacturing Industries. In addition, the Construction and Built Environment Foundation / Higher Diploma also provides an excellent platform for individuals interested in progression into the Extractive, Minerals Processing and related Manufacturing Industries.

Previous work experience in the Extractive, Minerals Processing and related Manufacturing Industries, or a related discipline, is also a valuable foundation for entry into this pathway.

Many Extractive, Minerals Processing and related Manufacturing Industries 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 Extractive, Minerals Processing and related Manufacturing Industries they will be required to work in a quarrying, mining or manufacturing 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 Extractive, Minerals Processing and related Manufacturing Industries 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.
- 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, Technician, or into other functional areas such as research and development for production methods, quality control, 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

UCAS points for this pathway:

Framework Developer to complete with relevant info

Employee rights and responsibilities

Please note that for Apprenticeship starts from 14/10/2016 onwards ERR is no longer a **mandatory** requirement in all frameworks.

However, it may still be included in some frameworks and where it is not explicitly stated that ERR is not a requirement then confirmation of an Apprentice's ERR achievement will still remain a requirement for Apprenticeship certification purposes.

Is ERR a requirement for this framework? **YES** **NO**

Delivery and assessment

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.

The apprentice's achievement of the ERR must be demonstrated by achievement of a

recognised qualification. The recognised qualifications are:

- 600/5845/6 FAQ Level 2 Award In Employee Rights and Responsibilities (QCF)
- 600/5619/8 FDQ Level 2 Award In Employee Rights and Responsibilities (QCF)
- 600/6599/0 iCQ Level 2 Award in Employee Rights and Responsibilities (QCF)
- 600/6291/5 IMIAL Level 2 Award In Employee Rights and Responsibilities (QCF)
- 600/6451/1 ITEC Level 2 Award in Employee Rights and Responsibilities (QCF)
- 600/4999/6 NCFE Level 2 Award in Employee Rights and Responsibilities (QCF)
- 600/7826/1 NOCN Level 2 Award in Employee Rights and Responsibilities (QCF)
- 600/5598/4 VTCT Level 2 Award in Employee Rights and Responsibilities (QCF)

NOTE: QCF units for ERR are also available from other Awarding Organisations. Should the provider wish to use an alternative qualification, which must have at least the minimum of 4 credits and 32 guided learning hours, they should apply to the Mineral Products Qualifications Council.

Level 2, Pathway 3: Mobile Plant Operations

Description of this pathway

Mobile Plant Operations

Total Minimum Credit Value = 53

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	Operate mobile plant in extractives sites for loading, transfer and stocking out of rocks, minerals, waste materials or processed materials. The plant operated will vary depending on the nature of each business; e.gs. loading shovel, dumper, lift truck, bulldozer, other specialist 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

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

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	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
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C11a	600/0040/5	MPQC	97	341	N/A
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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
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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 credit values 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 one knowledge qualification available, which provides the required underpinning knowledge and understanding for all of the competency qualifications. To achieve this award, Apprentices must achieve all 3 mandatory units.

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

Essential Skills

An apprenticeship framework must specify as a Welsh certificate requirement the expected achievement levels of Essential Skills in Communication and the Application of Number.

Where Essential Skills qualifications are specified in an apprenticeship framework, the apprenticeship framework must specify the acceptance of a recognised proxy qualification for Communication and Application of Number.

Communication

For the current list of acceptable proxy qualifications and appropriate **minimum** grade/level requirements, please refer to the most recent version of [SASW](#) on the [gov.wales](#) website. Additional guidance materials can be found on the [Knowledge Base](#) section of the [ACW](#) website.

Does this framework require Communication achievement above the minimum SASW requirement? **YES** **NO**

If YES, please state the grade/level required for English and give a brief **REASON** as to why this is required: Enter alternative grade/level requirements and reasons here.

Application of Number

For the current list of acceptable proxy qualifications and appropriate **minimum** grade/level requirements, please refer to the most recent version of [SASW](#) on the [gov.wales](#) website. Additional guidance materials can be found on the [Knowledge Base](#) section of the [ACW](#) website.

Does this framework require Application of Number achievement above the minimum SASW requirement? **YES** **NO**

If YES, please state the grade/level required for Maths and give a brief **REASON** as to why this is required: Enter alternative grade/level requirements and reasons here.

Inclusion of Digital Literacy (ICT)

Digital Literacy (ICT) is an **optional** framework requirement.

Is Digital Literacy a requirement in this framework? **YES** **NO**

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 QCF (Purpose D) / 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 Science 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 Extractive, Minerals Processing and related Manufacturing Industries. In addition, the Construction and Built Environment Foundation / Higher Diploma also provides an excellent platform for individuals interested in progression into the Extractive, Minerals Processing and related Manufacturing Industries.

Previous work experience in the Extractive, Minerals Processing and related Manufacturing Industries, or a related discipline, is also a valuable foundation for entry into this pathway.

Many Extractive, Minerals Processing and related Manufacturing Industries 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 Extractive, Minerals Processing and related Manufacturing Industries they will be required to work in a quarrying, mining or manufacturing 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 Extractive, Minerals Processing and related Manufacturing Industries 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, Quarry Supervisor, Technician, or into other functional areas such as research and development for production methods, quality control, 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.

UCAS points for this pathway:

Employee rights and responsibilities

Please note that for Apprenticeship starts from 14/10/2016 onwards ERR is no longer a **mandatory** requirement in all frameworks.

However, it may still be included in some frameworks and where it is not explicitly stated that ERR is not a requirement then confirmation of an Apprentice's ERR achievement will still remain a requirement for Apprenticeship certification purposes.

Is ERR a requirement for this framework? **YES** **NO**

Delivery and assessment

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.

The apprentice's achievement of the ERR must be demonstrated by achievement of a recognised qualification. The recognised qualifications are:

- 600/5845/6 FAQ Level 2 Award In Employee Rights and Responsibilities (QCF)
- 600/5619/8 FDQ Level 2 Award In Employee Rights and Responsibilities (QCF)
- 600/6599/0 iCQ Level 2 Award in Employee Rights and Responsibilities (QCF)
- 600/6291/5 IMIAL Level 2 Award In Employee Rights and Responsibilities (QCF)
- 600/6451/1 ITEC Level 2 Award in Employee Rights and Responsibilities (QCF)
- 600/4999/6 NCFE Level 2 Award in Employee Rights and Responsibilities (QCF)
- 600/7826/1 NOCN Level 2 Award in Employee Rights and Responsibilities (QCF)
- 600/5598/4 VTCT Level 2 Award in Employee Rights and Responsibilities (QCF)

NOTE: QCF units for ERR are also available from other Awarding Organisations. Should the provider wish to use an alternative qualification, which must have at least the minimum of 4 credits and 32 guided learning hours, they should apply to the Mineral Products Qualifications Council.

Level 2, Pathway 4: Extractives Drill Rig Operations

Description of this pathway

Extractives Drill Rig Operations

Total Credit Value = 71

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)
Extractives Drill Rig Operator	Operate drill rigs to drill holes in ground to identify geological rock types and features, or drill holes in quarry benches and faces to allow extraction by blasting or cutting.

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 Apprentices must complete all 5 of the mandatory units in Group plus one unit from Group B.

KNOWLEDGE:

To achieve this qualification, Apprentices must achieve all 3 mandatory units.

Essential Skills

An apprenticeship framework must specify as a Welsh certificate requirement the expected achievement levels of Essential Skills in Communication and the Application of Number.

Where Essential Skills qualifications are specified in an apprenticeship framework, the apprenticeship framework must specify the acceptance of a recognised proxy qualification for Communication and Application of Number.

Communication

For the current list of acceptable proxy qualifications and appropriate **minimum** grade/level requirements, please refer to the most recent version of [SASW](#) on the [gov.wales](#) website. Additional guidance materials can be found on the [Knowledge Base](#) section of the [ACW](#) website.

Does this framework require Communication achievement above the minimum SASW requirement? **YES** **NO**

If YES, please state the grade/level required for English and give a brief **REASON** as to why this is required: Enter alternative grade/level requirements and reasons here.

Application of Number

For the current list of acceptable proxy qualifications and appropriate **minimum** grade/level requirements, please refer to the most recent version of [SASW](#) on the [gov.wales](#) website. Additional guidance materials can be found on the [Knowledge Base](#) section of the [ACW](#) website.

Does this framework require Application of Number achievement above the minimum SASW requirement? **YES** **NO**

If YES, please state the grade/level required for Maths and give a brief **REASON** as to why this is required: Enter alternative grade/level requirements and reasons here.

Inclusion of Digital Literacy (ICT)

Digital Literacy (ICT) is an **optional** framework requirement.

Is Digital Literacy a requirement in this framework? **YES** **NO**

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 QCF qualifications / 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 Science 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 Extractive, Minerals Processing and related Manufacturing Industries. In addition, the Construction and Built Environment Foundation / Higher Diploma also provides an excellent platform for individuals interested in progression into the Extractive, Minerals Processing and related Manufacturing Industries.

Previous work experience in the Extractive, Minerals Processing and related Manufacturing Industries, or a related discipline, is also a valuable foundation for entry into this pathway.

Many Extractive, Minerals Processing and related Manufacturing Industries 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 Extractive, Minerals Processing and related Manufacturing Industries they will be required to work in a quarrying, mining or manufacturing 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 Extractive, Minerals Processing and related Manufacturing Industries 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 Drilling Supervisor, Quarry Supervisor, Technician, Shotfirer or into other functional areas such as research and development for production methods or quality control.
- 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.

UCAS points for this pathway:

Employee rights and responsibilities

Please note that for Apprenticeship starts from 14/10/2016 onwards ERR is no longer a **mandatory** requirement in all frameworks.

However, it may still be included in some frameworks and where it is not explicitly stated that ERR is not a requirement then confirmation of an Apprentice's ERR achievement will still remain a requirement for Apprenticeship certification purposes.

Is ERR a requirement for this framework? **YES** **NO**

Delivery and assessment

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.

The apprentice's achievement of the ERR must be demonstrated by achievement of a

recognised qualification. The recognised qualifications are:

- 600/5845/6 FAQ Level 2 Award In Employee Rights and Responsibilities (QCF)
- 600/5619/8 FDQ Level 2 Award In Employee Rights and Responsibilities (QCF)
- 600/6599/0 iCQ Level 2 Award in Employee Rights and Responsibilities (QCF)
- 600/6291/5 IMIAL Level 2 Award In Employee Rights and Responsibilities (QCF)
- 600/6451/1 ITEC Level 2 Award in Employee Rights and Responsibilities (QCF)
- 600/4999/6 NCFE Level 2 Award in Employee Rights and Responsibilities (QCF)
- 600/7826/1 NOCN Level 2 Award in Employee Rights and Responsibilities (QCF)
- 600/5598/4 VTCT Level 2 Award in Employee Rights and Responsibilities (QCF)

NOTE: QCF units for ERR are also available from other Awarding Organisations. Should the provider wish to use an alternative qualification, which must have at least the minimum of 4 credits and 32 guided learning hours, they should apply to the Mineral Products Qualifications Council.

Level 2, Pathway 5: Mines Rescue

Description of this pathway

Mines Rescue

Total Minimum Credit Value = 66

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

The Apprentice must have some mine working experience before entering this pathway.

Job title(s)	Job role(s)
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:

Apprentices must achieve all 6 mandatory units in this qualification.

KNOWLEDGE:

To achieve this qualification the Apprentice must achieve all 3 mandatory units.

Essential Skills

An apprenticeship framework must specify as a Welsh certificate requirement the expected achievement levels of Essential Skills in Communication and the Application of Number.

Where Essential Skills qualifications are specified in an apprenticeship framework, the apprenticeship framework must specify the acceptance of a recognised proxy qualification for Communication and Application of Number.

Communication

For the current list of acceptable proxy qualifications and appropriate **minimum** grade/level requirements, please refer to the most recent version of [SASW](#) on the [gov.wales](#) website. Additional guidance materials can be found on the [Knowledge Base](#) section of the [ACW](#) website.

Does this framework require Communication achievement above the minimum SASW requirement? YES NO

If YES, please state the grade/level required for English and give a brief **REASON** as to why this is required: Enter alternative grade/level requirements and reasons here.

Application of Number

For the current list of acceptable proxy qualifications and appropriate **minimum** grade/level requirements, please refer to the most recent version of [SASW](#) on the [gov.wales](#) website. Additional guidance materials can be found on the [Knowledge Base](#) section of the [ACW](#) website.

Does this framework require Application of Number achievement above the minimum SASW requirement? YES NO

If YES, please state the grade/level required for Maths and give a brief **REASON** as to why this is required: Enter alternative grade/level requirements and reasons here.

Inclusion of Digital Literacy (ICT)

Digital Literacy (ICT) is an **optional** framework requirement.

Is Digital Literacy a requirement in this framework? YES NO

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 QCF qualifications / 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 Science 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 Extractive, Minerals Processing and related Manufacturing Industries. In addition, the Construction and Built Environment Foundation / Higher Diploma also provides an excellent platform for individuals interested in progression into the Extractive, Minerals Processing and related Manufacturing Industries.

Previous work experience in the Extractive, Minerals Processing and related Manufacturing Industries, or a related discipline, is also a valuable foundation for entry into this pathway. Mine working experience is required before entering this pathway.

Many Extractive, Minerals Processing and related Manufacturing Industries 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 Extractive, Minerals Processing and related Manufacturing Industries they will be required to work in a quarrying, mining or manufacturing 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 Extractive, Minerals Processing and related Manufacturing Industries employers.

PROGRESSION FROM THIS PATHWAY INCLUDES:

- Continuing to develop your craft and technical skills and experience in Extractive, Minerals Processing and related Manufacturing Industries 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 Extractive, Minerals Processing and related Manufacturing Industries - "horizontal progression".
- Progressing into higher level jobs within the Extractive, Minerals Processing and related Manufacturing Industries such as Mines Rescue Officer, Mines Supervisor, Technician, or into other functional areas such as research and development for production methods or quality control,
- Undertaking a Level 3 Apprenticeship in Extractives and Mineral Processing
- 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.

UCAS points for this pathway:

Employee rights and responsibilities

Please note that for Apprenticeship starts from 14/10/2016 onwards ERR is no longer a **mandatory** requirement in all frameworks.

However, it may still be included in some frameworks and where it is not explicitly stated that ERR is not a requirement then confirmation of an Apprentice's ERR achievement will still remain a requirement for Apprenticeship certification purposes.

Is ERR a requirement for this framework? **YES** **NO**

Delivery and assessment

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.

The apprentice's achievement of the ERR must be demonstrated by achievement of a

recognised qualification. The recognised qualifications currently are:

- 600/5845/6 FAQ Level 2 Award In Employee Rights and Responsibilities (QCF)
- 600/5619/8 FDQ Level 2 Award In Employee Rights and Responsibilities (QCF)
- 600/6599/0 iCQ Level 2 Award in Employee Rights and Responsibilities (QCF)
- 600/6291/5 IMIAL Level 2 Award In Employee Rights and Responsibilities (QCF)
- 600/6451/1 ITEC Level 2 Award in Employee Rights and Responsibilities (QCF)
- 600/4999/6 NCFE Level 2 Award in Employee Rights and Responsibilities (QCF)
- 600/7826/1 NOCN Level 2 Award in Employee Rights and Responsibilities (QCF)
- 600/5598/4 VTCT Level 2 Award in Employee Rights and Responsibilities (QCF)

NOTE: QCF units for ERR are also available from other Awarding Organisations. Should the provider wish to use an alternative qualification, which must have at least the minimum of 4 credits and 32 guided learning hours, they should apply to the Mineral Products Qualifications Council.

Level 2, Pathway 6: Blasting Operations

Description of this pathway

Blasting Operations

Total Minimum Credit Value = 41

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)
Face Profiler	Use specialist equipment, such as laser scanners, to establish the dimensions and profile of the quarry or rock face.

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 qualification, Apprentices must achieve all 3 mandatory units.

KNOWLEDGE: To receive this qualification, Apprentices must achieve all 3 mandatory units.

Essential Skills

An apprenticeship framework must specify as a Welsh certificate requirement the expected achievement levels of Essential Skills in Communication and the Application of Number.

Where Essential Skills qualifications are specified in an apprenticeship framework, the apprenticeship framework must specify the acceptance of a recognised proxy qualification for Communication and Application of Number.

Communication

For the current list of acceptable proxy qualifications and appropriate **minimum** grade/level requirements, please refer to the most recent version of [SASW](#) on the [gov.wales](#) website. Additional guidance materials can be found on the [Knowledge Base](#) section of the [ACW](#) website.

Does this framework require Communication achievement above the minimum SASW requirement? **YES** **NO**

If YES, please state the grade/level required for English and give a brief **REASON** as to why this is required: Enter alternative grade/level requirements and reasons here.

Application of Number

For the current list of acceptable proxy qualifications and appropriate **minimum** grade/level requirements, please refer to the most recent version of [SASW](#) on the [gov.wales](#) website. Additional guidance materials can be found on the [Knowledge Base](#) section of the [ACW](#) website.

Does this framework require Application of Number achievement above the minimum SASW requirement? **YES** **NO**

If YES, please state the grade/level required for Maths and give a brief **REASON** as to why this is required: Enter alternative grade/level requirements and reasons here.

Inclusion of Digital Literacy (ICT)

Digital Literacy (ICT) is an **optional** framework requirement.

Is Digital Literacy a requirement in this framework? **YES** **NO**

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 QCF qualifications / 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 Science 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 Extractive, Minerals Processing and related Manufacturing Industries. In addition, the Construction and Built Environment Foundation/Higher Diploma also provides an excellent platform for individuals interested in progression into the Extractive, Minerals Processing and related Manufacturing Industries.

Previous work experience in the Extractive, Minerals Processing and related Manufacturing Industries, or a related discipline, is also a valuable foundation for entry into this pathway.

Many Extractive, Minerals Processing and related Manufacturing Industries 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 Extractive, Minerals Processing and related Manufacturing Industries they will be required to work in a quarrying, mining or manufacturing 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 Extractive, Minerals Processing and related Manufacturing Industries employers.

PROGRESSION FROM THIS PATHWAY INCLUDES:

- Continuing to develop your craft and technical skills and experience in Extractive and

Minerals 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 Extractive, Minerals Processing and related Manufacturing Industries - "horizontal progression"
- Progressing into higher level jobs within the Extractive, Minerals Processing and related Manufacturing Industries such as Quarry Supervisor, Shotfirer, Technician, or into other functional areas such as research and development for production methods, or quality control.
- 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.

UCAS points for this pathway:

Framework Developer to complete with relevant info

Employee rights and responsibilities

Please note that for Apprenticeship starts from 14/10/2016 onwards ERR is no longer a **mandatory** requirement in all frameworks.

However, it may still be included in some frameworks and where it is not explicitly stated that ERR is not a requirement then confirmation of an Apprentice's ERR achievement will still remain a requirement for Apprenticeship certification purposes.

Is ERR a requirement for this framework? **YES** **NO**

Delivery and assessment

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.

The apprentice's achievement of the ERR must be demonstrated by achievement of a

recognised qualification. The recognised qualifications currently are:

- 600/5845/6 FAQ Level 2 Award In Employee Rights and Responsibilities (QCF)
- 600/5619/8 FDQ Level 2 Award In Employee Rights and Responsibilities (QCF)
- 600/6599/0 iCQ Level 2 Award in Employee Rights and Responsibilities (QCF)
- 600/6291/5 IMIAL Level 2 Award In Employee Rights and Responsibilities (QCF)
- 600/6451/1 ITEC Level 2 Award in Employee Rights and Responsibilities (QCF)
- 600/4999/6 NCFE Level 2 Award in Employee Rights and Responsibilities (QCF)
- 600/7826/1 NOCN Level 2 Award in Employee Rights and Responsibilities (QCF)
- 600/5598/4 VTCT Level 2 Award in Employee Rights and Responsibilities (QCF)

NOTE: QCF units for ERR are also available from other Awarding Organisations. Should the provider wish to use an alternative qualification, which must have at least the minimum of 4 credits and 32 guided learning hours, they should apply to the Mineral Products Qualifications Council.

Level 3

Title for this framework at level 3

Apprenticeship in Extractives and Mineral Processing

Pathways for the framework at level 3:

- Pathway 1: Mines - Electrical
- Pathway 2: Mines - Mechanical
- Pathway 3: Mines Shotfiring
- Pathway 4: Mines Maintenance Supervision
- Pathway 5: Shotfiring

Level 3, Pathway 1: Mines - Electrical

Description of this pathway

Mines - Electrical

Total Minimum Credit Value = 373

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 Electrical Technician	Installation, maintenance and disconnection of underground electrical equipment and systems.

Qualifications

Competence qualifications available to this pathway

C1 – MPQC Level 3 Diploma in Mining Electrical Operations (QCF)

No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
C1a	501/2361/0	MPQC	306	621	N/A

Knowledge qualifications available to this pathway

K1 – Pearson BTEC Level 3 Diploma in Engineering (QCF)

No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
K1a	500/8154/8	Pearson Education Ltd	120	720	N/A

K2 – EAL Level 3 Diploma in Maintenance Engineering Technology (QCF)

No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
K2a	501/1112/7	EMTA Awards Ltd	78	600	N/A

K3 – Level 3 Diploma in Engineering (QCF)

No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
K3a	600/0882/9	City & Guilds	54	480	N/A

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

No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
K4a	501/1419/0	EMTA Awards	97	750	N/A

K5 – Pearson BTEC Level 3 Extended Diploma in Operations and Maintenance Engineering (QCF)

No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
K5a	500/7317/5	Pearson Education Ltd	180	1080	N/A

K6 – Pearson BTEC Level 3 Diploma in Operations and Maintenance Engineering (QCF)

No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
K6a	500/7315/1	Pearson Education Ltd	120	720	N/A

K7 – Pearson BTEC Level 3 Diploma in Electrical/ Electronic Engineering (QCF)

No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
K7a	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, or K7 provide 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:

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.

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

Apprentices must achieve ONE of the following knowledge qualifications:

- The K1 Parson 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 Apprentice 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 Apprentices 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 Apprentice 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 Pearson 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 Pearson 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. OR
- The K7 Pearson 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.

Essential Skills

An apprenticeship framework must specify as a Welsh certificate requirement the expected achievement levels of Essential Skills in Communication and the Application of Number.

Where Essential Skills qualifications are specified in an apprenticeship framework, the apprenticeship framework must specify the acceptance of a recognised proxy qualification for Communication and Application of Number.

Communication

For the current list of acceptable proxy qualifications and appropriate **minimum** grade/level requirements, please refer to the most recent version of [SASW](#) on the [gov.wales](#) website. Additional guidance materials can be found on the [Knowledge Base](#) section of the [ACW](#) website.

Does this framework require Communication achievement above the minimum SASW requirement? **YES** **NO**

If YES, please state the grade/level required for English and give a brief **REASON** as to why this is required: Enter alternative grade/level requirements and reasons here.

Application of Number

For the current list of acceptable proxy qualifications and appropriate **minimum** grade/level requirements, please refer to the most recent version of [SASW](#) on the [gov.wales](#) website. Additional guidance materials can be found on the [Knowledge Base](#) section of the [ACW](#) website.

Does this framework require Application of Number achievement above the minimum SASW requirement? **YES** **NO**

If YES, please state the grade/level required for Maths and give a brief **REASON** as to why this is required: Enter alternative grade/level requirements and reasons here.

Inclusion of Digital Literacy (ICT)

Digital Literacy (ICT) is an **optional** framework requirement.

Is Digital Literacy a requirement in this framework? **YES** **NO**

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. 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.

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. Work based qualifications such as QCF competence qualifications / NVQs / SVQs / AVCEs (Vocational A' Levels) and BTEC Diplomas related to the Extractive, Mineral Processing and related Manufacturing Industries are widely available and all provide a good basis for entry to this pathway. GCSEs also provide a solid base to build on, with subjects such as Science 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 Extractive, Minerals Processing and related Manufacturing Industries. In addition, the Construction and Built Environment Foundation / Higher Diploma also provides an excellent platform for individuals interested in progression into the Extractive, Minerals Processing and related Manufacturing Industries.

Previous work experience in the Extractive, Minerals Processing and related Manufacturing Industries, or a related discipline, is also a valuable foundation for entry into this pathway.

Many Extractive, Minerals Processing and related Manufacturing Industries 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 Extractive, Minerals Processing and related Manufacturing Industries they will be required to work in a quarrying, mining or manufacturing 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 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 Extractive, Minerals Processing and related Manufacturing Industries employers.

PROGRESSION FROM THIS PATHWAY INCLUDES:

- Continuing to develop your technical skills and experience in Extractive and Minerals 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 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, Deputy Works Manager, Engineering Management, Health and Safety Advisor, Environmental Advisor or into other functional areas such as research and development for production methods.
- 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. Mining, Engineering, Science or Business Studies. Entry may require additional training/learning.

UCAS points for this pathway:

(no information)

Employee rights and responsibilities

Please note that for Apprenticeship starts from 14/10/2016 onwards ERR is no longer a **mandatory** requirement in all frameworks.

However, it may still be included in some frameworks and where it is not explicitly stated that ERR is not a requirement then confirmation of an Apprentice's ERR achievement will still remain a requirement for Apprenticeship certification purposes.

Is ERR a requirement for this framework? **YES** **NO**

Delivery and assessment

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.

The apprentice's achievement of the ERR must be demonstrated by achievement of a recognised qualification. The recognised qualifications currently are:

- 600/5845/6 FAQ Level 2 Award In Employee Rights and Responsibilities (QCF)
- 600/5619/8 FDQ Level 2 Award In Employee Rights and Responsibilities (QCF)
- 600/6599/0 iCQ Level 2 Award in Employee Rights and Responsibilities (QCF)
- 600/6291/5 IMIAL Level 2 Award In Employee Rights and Responsibilities (QCF)
- 600/6451/1 ITEC Level 2 Award in Employee Rights and Responsibilities (QCF)
- 600/4999/6 NCFE Level 2 Award in Employee Rights and Responsibilities (QCF)
- 600/7826/1 NOCN Level 2 Award in Employee Rights and Responsibilities (QCF)
- 600/5598/4 VTCT Level 2 Award in Employee Rights and Responsibilities (QCF)

NOTE: QCF units for ERR are also available from other Awarding Organisations. Should the provider wish to use an alternative qualification, which must have at least the minimum of 4 credits and 32 guided learning hours, they should apply to the Mineral Products Qualifications Council.

Level 3, Pathway 2: Mines - Mechanical

Description of this pathway

Mines - Mechanical

Total Minimum Credit Value = 382

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 Mechanical Technician	Mechanical installation, maintenance, repair and dismantling of plant, equipment and machinery in a mine.

Qualifications

Competence qualifications available to this pathway

C1 – MPQC Level 3 Diploma in Mining Mechanical Operations (QCF)

No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
C1a	501/2295/2	MPQC	315	678	N/A

Knowledge qualifications available to this pathway

K1 – Pearson BTEC Level 3 Diploma in Engineering (QCF)

No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
K1a	500/8154/8	Pearson Education Ltd	120	720	N/A

K2 – EAL Level 3 Diploma in Maintenance Engineering Technology (QCF)

No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
K2a	501/1112/7	EMTA Awards Ltd	78	600	N/A

K3 – City & Guilds Level 3 Diploma in Engineering (QCF)

No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
K3a	600/0882/9	City & Guilds	54	480	N/A

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

No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
K4a	501/1419/0	EMTA Awards Ltd	97	750	N/A

K5 – Pearson BTEC Level 3 Extended Diploma in Operations and Maintenance Engineering (QCF)

No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
K5a	500/7317/5	Pearson Education Ltd	180	1080	N/A

K6 – Pearson BTEC Level 3 Diploma in Operations and Maintenance Engineering (QCF)

No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
K6a	500/7315/1	Pearson Education Ltd	120	720	N/A

K7 – Pearson 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

Combined qualifications available to this pathway

N/A

Relationship between competence and knowledge qualifications

K1, K2, K3, K4, K5, K6 or K7 provide 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 an Apprentice 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 credit values and GLHs as certain job roles and operations are much more complex than others and require additional skills and competencies to be achieved. Job roles can range from undertaking standard mechanical operations to operating complex computer controlled engineering systems.

Apprentices must achieve ONE of the following knowledge qualifications:

- The K1 Pearson 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 Apprentice 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 Apprentices 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 Apprentice 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 Pearson 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 Pearson 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 Pearson 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.

Essential Skills

An apprenticeship framework must specify as a Welsh certificate requirement the expected achievement levels of Essential Skills in Communication and the Application of Number.

Where Essential Skills qualifications are specified in an apprenticeship framework, the apprenticeship framework must specify the acceptance of a recognised proxy qualification for Communication and Application of Number.

Communication

For the current list of acceptable proxy qualifications and appropriate **minimum** grade/level requirements, please refer to the most recent version of [SASW](#) on the [gov.wales](#) website. Additional guidance materials can be found on the [Knowledge Base](#) section of the [ACW](#) website.

Does this framework require Communication achievement above the minimum SASW requirement? YES NO

If YES, please state the grade/level required for English and give a brief **REASON** as to why this is required: Enter alternative grade/level requirements and reasons here.

Application of Number

For the current list of acceptable proxy qualifications and appropriate **minimum** grade/level requirements, please refer to the most recent version of [SASW](#) on the [gov.wales](#) website. Additional guidance materials can be found on the [Knowledge Base](#) section of the [ACW](#) website.

Does this framework require Application of Number achievement above the minimum SASW requirement? YES NO

If YES, please state the grade/level required for Maths and give a brief **REASON** as to why this is required: Enter alternative grade/level requirements and reasons here.

Inclusion of Digital Literacy (ICT)

Digital Literacy (ICT) is an **optional** framework requirement.

Is Digital Literacy a requirement in this framework? YES NO

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. 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.

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. Work based qualifications such as QCF competence qualifications / NVQs / SVQs / AVCEs (Vocational A' Levels) and BTEC Diplomas related to the Extractive, Mineral Processing and related Manufacturing Industries are widely available and all provide a good basis for entry to this pathway. GCSEs also provide a solid base to build on, with subjects such as Science 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 Extractive, Minerals Processing and related Manufacturing Industries. In addition, the Construction and Built Environment Foundation / Higher Diploma also provides an excellent platform for individuals interested in progression into the Extractive, Minerals Processing and related Manufacturing Industries.

Previous work experience in the Extractive, Minerals Processing and related Manufacturing Industries, or a related discipline, is also a valuable foundation for entry into this pathway.

Many Extractive, Minerals Processing and related Manufacturing Industries 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 Extractive, Minerals Processing and related Manufacturing Industries they will be required to work in a quarrying, mining or manufacturing 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 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 Extractive, Minerals Processing and related Manufacturing Industries employers.

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 Extractive, Minerals Processing and related Manufacturing Industries - "horizontal progression"
- Progressing to Level 4 or 5 qualifications in 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, or Construction and the Built Environment.
- Progressing into higher level jobs within the Extractive, Minerals Processing and related Manufacturing Industries such as Mine Manager, Engineering Manager, Deputy Works Manager, Health and Safety Advisor, Environmental Advisor or into other functional areas such as research and development for production methods.
- Undertaking Assessor and Verifier qualifications.
- Undertaking further training in Management & Leadership.
- Progressing to an industry related undergraduate programme e.g. Mining, Engineering, Science or Business Studies. Entry may require additional training/learning.

UCAS points for this pathway:

(no information)

Employee rights and responsibilities

Please note that for Apprenticeship starts from 14/10/2016 onwards ERR is no longer a **mandatory** requirement in all frameworks.

However, it may still be included in some frameworks and where it is not explicitly stated that ERR is not a requirement then confirmation of an Apprentice's ERR achievement will still remain a requirement for Apprenticeship certification purposes.

Is ERR a requirement for this framework? **YES** **NO**

Delivery and assessment

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.

The apprentice's achievement of the ERR must be demonstrated by achievement of a recognised qualification. The recognised qualifications currently are:

- 600/5845/6 FAQ Level 2 Award In Employee Rights and Responsibilities (QCF)
- 600/5619/8 FDQ Level 2 Award In Employee Rights and Responsibilities (QCF)

- 600/6599/0 iCQ Level 2 Award in Employee Rights and Responsibilities (QCF)
- 600/6291/5 IMIAL Level 2 Award In Employee Rights and Responsibilities (QCF)
- 600/6451/1 ITEC Level 2 Award in Employee Rights and Responsibilities (QCF)
- 600/4999/6 NCFE Level 2 Award in Employee Rights and Responsibilities (QCF)
- 600/7826/1 NOCN Level 2 Award in Employee Rights and Responsibilities (QCF)
- 600/5598/4 VTCT Level 2 Award in Employee Rights and Responsibilities (QCF)

NOTE: QCF units for ERR are also available from other Awarding Organisations. Should the provider wish to use an alternative qualification, which must have at least the minimum of 4 credits and 32 guided learning hours, they should apply to the Mineral Products Qualifications Council.

Level 3, Pathway 3: Mines Shotfiring

Description of this pathway

Mines Shotfiring

Total Minimum Credit Value = 69

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 – MPQC Level 3 Diploma in Shotfiring for Mining Operations (QCF)

No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
C1a	600/0780/1	MPQC	43	306	N/A

Knowledge qualifications available to this pathway

K1 – MPQC Level 3 Certificate in Extractive and Minerals Processing Industries (QCF)

No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
K1a	501/1342/2	MPQC	13	90	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: Apprentices must complete all 7 mandatory units.

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

Essential Skills

An apprenticeship framework must specify as a Welsh certificate requirement the expected achievement levels of Essential Skills in Communication and the Application of Number.

Where Essential Skills qualifications are specified in an apprenticeship framework, the apprenticeship framework must specify the acceptance of a recognised proxy qualification for Communication and Application of Number.

Communication

For the current list of acceptable proxy qualifications and appropriate **minimum** grade/level requirements, please refer to the most recent version of [SASW](#) on the [gov.wales](#) website. Additional guidance materials can be found on the [Knowledge Base](#) section of the [ACW](#) website.

Does this framework require Communication achievement above the minimum SASW requirement? **YES** **NO**

If YES, please state the grade/level required for English and give a brief **REASON** as to why this is required: Enter alternative grade/level requirements and reasons here.

Application of Number

For the current list of acceptable proxy qualifications and appropriate **minimum** grade/level requirements, please refer to the most recent version of [SASW](#) on the [gov.wales](#) website. Additional guidance materials can be found on the [Knowledge Base](#) section of the [ACW](#) website.

Does this framework require Application of Number achievement above the minimum SASW requirement? **YES** **NO**

If YES, please state the grade/level required for Maths and give a brief **REASON** as to why this is required: Enter alternative grade/level requirements and reasons here.

Inclusion of Digital Literacy (ICT)

Digital Literacy (ICT) is an **optional** framework requirement.

Is Digital Literacy a requirement in this framework? **YES** **NO**

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. 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.

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. Work based qualifications such as QCF competence qualifications / NVQs / SVQs / AVCEs (Vocational A' Levels) and BTEC Diplomas related to the Extractive, Mineral Processing and related Manufacturing Industries are widely available and all provide a good basis for entry to this pathway. GCSEs also provide a solid base to build on, with subjects such as Science 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 Extractive, Minerals Processing and related Manufacturing Industries. In addition, the Construction and Built Environment Foundation / Higher Diploma also provides an excellent platform for individuals interested in progression into the Extractive, Minerals Processing and related Manufacturing Industries.

Previous work experience in the Extractive, Minerals Processing and related Manufacturing Industries, or a related discipline, is also a valuable foundation for entry into this pathway.

Many Extractive, Minerals Processing and related Manufacturing Industries 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 Extractive, Minerals Processing and related Manufacturing Industries they will be required to work in a quarrying, mining or manufacturing 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 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 Extractive, Minerals Processing and related Manufacturing Industries employers.

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 Extractive, Minerals Processing and related Manufacturing Industries - "horizontal progression"
- Progressing to Level 4 or 5 qualifications in 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 Mine Manager, Shotfiring Supervisor, Health and Safety Advisor, Environmental Advisor or into other functional areas such as research and development for production methods.
- Undertaking Assessor and Verifier qualifications.
- Undertaking further training in Management & Leadership or Engineering
- Progressing to an industry related undergraduate programme e.g. Mining, Engineering, Science or Business Studies. Entry may require additional training/learning.

UCAS points for this pathway:

(no information)

Employee rights and responsibilities

Please note that for Apprenticeship starts from 14/10/2016 onwards ERR is no longer a **mandatory** requirement in all frameworks.

However, it may still be included in some frameworks and where it is not explicitly stated that ERR is not a requirement then confirmation of an Apprentice's ERR achievement will still remain a requirement for Apprenticeship certification purposes.

Is ERR a requirement for this framework? **YES** **NO**

Delivery and assessment

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.

The apprentice's achievement of the ERR must be demonstrated by achievement of a recognised qualification. The recognised qualifications currently are:

- 600/5845/6 FAQ Level 2 Award In Employee Rights and Responsibilities (QCF)
- 600/5619/8 FDQ Level 2 Award In Employee Rights and Responsibilities (QCF)
- 600/6599/0 iCQ Level 2 Award in Employee Rights and Responsibilities (QCF)
- 600/6291/5 IMIAL Level 2 Award In Employee Rights and Responsibilities (QCF)
- 600/6451/1 ITEC Level 2 Award in Employee Rights and Responsibilities (QCF)
- 600/4999/6 NCFE Level 2 Award in Employee Rights and Responsibilities (QCF)
- 600/7826/1 NOCN Level 2 Award in Employee Rights and Responsibilities (QCF)
- 600/5598/4 VTCT Level 2 Award in Employee Rights and Responsibilities (QCF)

NOTE: QCF units for ERR are also available from other Awarding Organisations. Should the provider wish to use an alternative qualification, which must have at least the minimum of 4 credits and 32 guided learning hours, they should apply to the Mineral Products Qualifications Council.

Level 3, Pathway 4: Mines Maintenance Supervision

Description of this pathway

Mines Maintenance Supervision

Total Minimum Credit Value = 231

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 – MPQC Level 3 Diploma in Supervision of Mines Technical Operations (QCF)

No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
C1a	501/2341/5	MPQC	164	478	N/A

Knowledge qualifications available to this pathway

K1 – Pearson BTEC Level 3 Diploma in Engineering (QCF)

No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
K1a	500/8154/8	Pearson Education Ltd	120	720	N/A

K2 – EAL Level 3 Diploma in Maintenance Engineering Technology (QCF)

No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
K2a	501/1112/7	EMTA Awards Ltd	78	600	N/A

K3 – City & Guilds Level 3 Diploma in Engineering (QCF)

No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
K3a	600/0882/9	City & Guilds	54	480	N/A

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

No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
K4a	501/1419/0	EMTA Awards Ltd	97	750	N/A

K5 – Pearson BTEC Level 3 Extended Diploma in Operations and Maintenance Engineering (QCF)

No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
K5a	500/7317/5	Pearson Education Ltd	180	1080	N/A

K6 – Pearson BTEC Level 3 Diploma in Operations and Maintenance Engineering (QCF)

No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
K6a	500/7315/1	Pearson Education Ltd	120	720	N/A

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:

Apprentices 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 an Apprentice 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 credit values and guided learning hours as certain job roles, responsibilities and operations being undertaken are much more complex than others and require additional skills and competencies to be achieved.

Apprentices must achieve ONE of the following knowledge qualifications:

- The K1 Pearson 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 Apprentice 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 Apprentices 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 Apprentice 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 Pearson 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 Pearson 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.

Essential Skills

An apprenticeship framework must specify as a Welsh certificate requirement the expected achievement levels of Essential Skills in Communication and the Application of Number.

Where Essential Skills qualifications are specified in an apprenticeship framework, the apprenticeship framework must specify the acceptance of a recognised proxy qualification for Communication and Application of Number.

Communication

For the current list of acceptable proxy qualifications and appropriate **minimum** grade/level requirements, please refer to the most recent version of [SASW](#) on the [gov.wales](#) website. Additional guidance materials can be found on the [Knowledge Base](#) section of the [ACW](#) website.

Does this framework require Communication achievement above the minimum SASW requirement? **YES** **NO**

If YES, please state the grade/level required for English and give a brief **REASON** as to why this is required: Enter alternative grade/level requirements and reasons here.

Application of Number

For the current list of acceptable proxy qualifications and appropriate **minimum** grade/level requirements, please refer to the most recent version of [SASW](#) on the [gov.wales](#) website. Additional guidance materials can be found on the [Knowledge Base](#) section of the [ACW](#) website.

Does this framework require Application of Number achievement above the minimum SASW requirement? **YES** **NO**

If YES, please state the grade/level required for Maths and give a brief **REASON** as to why this is required: Enter alternative grade/level requirements and reasons here.

Inclusion of Digital Literacy (ICT)

Digital Literacy (ICT) is an **optional** framework requirement.

Is Digital Literacy a requirement in this framework? **YES** **NO**

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. 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.

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. Work based qualifications such as QCF competence qualifications / NVQs / SVQs / AVCEs (Vocational A' Levels) and BTEC Diplomas related to the Extractive, Mineral Processing and related Manufacturing Industries are widely available and all provide a good basis for entry to this pathway. GCSEs also provide a solid base to build on, with subjects such as Science 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 Extractive, Minerals Processing and related Manufacturing Industries. In addition, the Construction and Built Environment Foundation / Higher Diploma also provides an excellent platform for individuals interested in progression into the Extractive, Minerals Processing and related Manufacturing Industries.

Previous work experience in the Extractive, Minerals Processing and related Manufacturing Industries, or a related discipline, is also a valuable foundation for entry into this pathway.

Many Extractive, Minerals Processing and related Manufacturing Industries 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 Extractive, Minerals Processing and related Manufacturing Industries they will be required to work in a quarrying, mining or manufacturing 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 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 Extractive, Minerals Processing and related Manufacturing Industries employers.

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 Extractive, Minerals Processing and related Manufacturing Industries - "horizontal progression"
- Progressing to Level 4 or 5 qualifications in 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 Mine Manager , Mine Engineer, Deputy Works Manager, Health and Safety Advisor , Environmental Advisor or into other functional areas such as research and development for production methods.
- Undertaking Assessor and Verifier qualifications.
- Undertaking further training in Management & Leadership, Mining technology or Engineering
- Progressing to an industry related undergraduate programme e.g. Mining, Engineering, Science or Business Studies. Entry may require additional training/learning.

UCAS points for this pathway:

(no information)

Employee rights and responsibilities

Please note that for Apprenticeship starts from 14/10/2016 onwards ERR is no longer a **mandatory** requirement in all frameworks.

However, it may still be included in some frameworks and where it is not explicitly stated that ERR is not a requirement then confirmation of an Apprentice's ERR achievement will still remain a requirement for Apprenticeship certification purposes.

Is ERR a requirement for this framework? **YES** **NO**

Delivery and assessment

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.

The apprentice's achievement of the ERR must be demonstrated by achievement of a recognised qualification. The recognised qualifications currently are:

- 600/5845/6 FAQ Level 2 Award In Employee Rights and Responsibilities (QCF)
- 600/5619/8 FDQ Level 2 Award In Employee Rights and Responsibilities (QCF)
- 600/6599/0 iCQ Level 2 Award in Employee Rights and Responsibilities (QCF)
- 600/6291/5 IMIAL Level 2 Award In Employee Rights and Responsibilities (QCF)
- 600/6451/1 ITEC Level 2 Award in Employee Rights and Responsibilities (QCF)
- 600/4999/6 NCFE Level 2 Award in Employee Rights and Responsibilities (QCF)
- 600/7826/1 NOCN Level 2 Award in Employee Rights and Responsibilities (QCF)
- 600/5598/4 VTCT Level 2 Award in Employee Rights and Responsibilities (QCF)

NOTE: QCF units for ERR are also available from other Awarding Organisations. Should the provider wish to use an alternative qualification, which must have at least the minimum of 4 credits and 32 guided learning hours, they should apply to the Mineral Products Qualifications Council.

Level 3, Pathway 5: Shotfiring

Description of this pathway

Shotfiring

Total Minimum Credit Value = 63

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)
Shotfirer	Checking, charging and firing the blast in accordance with the blast design and operational procedures, including pre- and post-blast inspection.

Qualifications

Competence qualifications available to this pathway

C1 – MPQC Level 3 NVQ Diploma in Shotfiring for the Extractive and Minerals Processing Industries (QCF)

No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
C1a	501/1737/3	MPQC	37	296	N/A

Knowledge qualifications available to this pathway

K1 – MPQC Level 3 Certificate in Extractive and Minerals Processing Industries (QCF)

No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
K1a	501/1342/2	MPQC	13	90	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 Apprentices must complete all 6 mandatory units in Group A.

KNOWLEDGE:

To achieve this qualification Apprentices must take all of the mandatory units plus the optional unit for this pathway:

The Principles of Blasting Activities (7+6) = 13 Credits

Essential Skills

An apprenticeship framework must specify as a Welsh certificate requirement the expected achievement levels of Essential Skills in Communication and the Application of Number.

Where Essential Skills qualifications are specified in an apprenticeship framework, the apprenticeship framework must specify the acceptance of a recognised proxy qualification for Communication and Application of Number.

Communication

For the current list of acceptable proxy qualifications and appropriate **minimum** grade/level requirements, please refer to the most recent version of [SASW](#) on the [gov.wales](#) website. Additional guidance materials can be found on the [Knowledge Base](#) section of the [ACW](#) website.

Does this framework require Communication achievement above the minimum SASW requirement? **YES** **NO**

If YES, please state the grade/level required for English and give a brief **REASON** as to why this is required: Enter alternative grade/level requirements and reasons here.

Application of Number

For the current list of acceptable proxy qualifications and appropriate **minimum** grade/level requirements, please refer to the most recent version of [SASW](#) on the [gov.wales](#) website. Additional guidance materials can be found on the [Knowledge Base](#) section of the [ACW](#) website.

Does this framework require Application of Number achievement above the minimum SASW requirement? **YES** **NO**

If YES, please state the grade/level required for Maths and give a brief **REASON** as to why this is required: Enter alternative grade/level requirements and reasons here.

Inclusion of Digital Literacy (ICT)

Digital Literacy (ICT) is an **optional** framework requirement.

Is Digital Literacy a requirement in this framework? **YES** **NO**

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. 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.

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. Work based qualifications such as QCF competence qualifications / NVQs / SVQs / AVCEs (Vocational A' Levels) and BTEC Diplomas related to the Extractive, Mineral Processing and related Manufacturing Industries are widely available and all provide a good basis for entry to this pathway. GCSEs also provide a solid base to build on, with subjects such as Science 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 Extractive, Minerals Processing and related Manufacturing Industries. In addition, the Construction and Built Environment Foundation / Higher Diploma also provides an excellent platform for individuals interested in progression into the Extractive, Minerals Processing and related Manufacturing Industries.

Previous work experience in the Extractive, Minerals Processing and related Manufacturing Industries, or a related discipline, is also a valuable foundation for entry into this pathway.

Many Extractive, Minerals Processing and related Manufacturing Industries 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 Extractive, Minerals Processing and related Manufacturing Industries they will be required to work in a quarrying, mining or manufacturing 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 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 Extractive, Minerals Processing and related Manufacturing Industries employers.

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 Extractive, Minerals Processing and related Manufacturing Industries - "horizontal progression"
- Progressing to Level 4 or 5 qualifications in 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, or Construction and the Built Environment.
- Progressing into higher level jobs within the Extractives and Mineral Processing industry such as Quarry Manager, Shotfiring Supervisor, Health and Safety Advisor, Environmental Advisor or into other functional areas such as research and development for production methods.
- Undertaking Assessor and Verifier qualifications.
- Undertaking further training in Management & Leadership, Blasting technology or Engineering
- Progressing to an industry related undergraduate programme e.g. Extractives, Engineering, Science or Business Studies. Entry may require additional training/learning.

UCAS points for this pathway:

(no information)

Employee rights and responsibilities

Please note that for Apprenticeship starts from 14/10/2016 onwards ERR is no longer a **mandatory** requirement in all frameworks.

However, it may still be included in some frameworks and where it is not explicitly stated that ERR is not a requirement then confirmation of an Apprentice's ERR achievement will still remain a requirement for Apprenticeship certification purposes.

Is ERR a requirement for this framework? **YES** **NO**

Delivery and assessment

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.

The apprentice's achievement of the ERR must be demonstrated by achievement of a recognised qualification.

The recognised qualifications currently are:

- 600/5845/6 FAQ Level 2 Award In Employee Rights and Responsibilities (QCF)
- 600/5619/8 FDQ Level 2 Award In Employee Rights and Responsibilities (QCF)
- 600/6599/0 iCQ Level 2 Award in Employee Rights and Responsibilities (QCF)
- 600/6291/5 IMIAL Level 2 Award In Employee Rights and Responsibilities (QCF)
- 600/6451/1 ITEC Level 2 Award in Employee Rights and Responsibilities (QCF)
- 600/4999/6 NCFE Level 2 Award in Employee Rights and Responsibilities (QCF)
- 600/7826/1 NOCN Level 2 Award in Employee Rights and Responsibilities (QCF)
- 600/5598/4 VTCT Level 2 Award in Employee Rights and Responsibilities (QCF)

NOTE: QCF units for ERR are also available from other Awarding Organisations. Should the provider wish to use an alternative qualification, which must have at least the minimum of 4 credits and 32 guided learning hours, they should apply to the Mineral Products Qualifications Council.

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 Apprentices 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 Extractives and Mineral Processing 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 Extractive, Minerals Processing and related Manufacturing 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.

Extractive, Minerals Processing and related Manufacturing 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 Extractive, Minerals Processing and related Manufacturing 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 identified 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 makeup of the Extractive, Minerals Processing and related Manufacturing 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 Extractive, Minerals Processing and related Manufacturing 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 the Extractive, Minerals Processing and related Manufacturing 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 Extractive, Minerals Processing and related Manufacturing Industries are non-exclusive and there are no significant barriers to entry and progression within any of its occupational roles.

Since becoming the SSO for the Extractive and Minerals Processing Industries the Mineral Products Qualifications Council (MPQC) has made a partnership agreement with the British Science Association (BSA) supported by Industry representatives structuring the development of CREST (CREativity in Science and Technology) projects, which was put into place 29th January 2014.

In existence for more than 25 years and the largest national award scheme in Britain, the British Science Association's CREST Awards

focus on projects within the STEM subjects (science, technology, engineering & maths), with over 30,000 inspired young people involved in the scheme and achieving a CREST Award within the previous year alone. During the 2011/12 academic year over 310 schools had been recognised by the BSA for their active participation within the scheme which focuses on fun, teamwork, communication, creativity and problem solving skills.

The emphasis behind the projects is to provide students with a practical insight into areas and businesses they will often not encounter, serving to provide a foundation in raising their awareness of different career paths and opportunities available to them, in addition to promoting their individual development, interest and engagement with alternative industries. The project with MPQC will focus on the Discovery, Bronze and Silver Awards, primarily aimed at the 11-16 year old age groups, with time required to complete the awards ranging from one day for the Discovery Award to around 30 hours on the Silver Award.

Full support from the MPQC Board has been provided for the scheme with the initiative being seen as a long-term goal, ensuring early engagement with the industries future workforce.

It was confirmed the next steps in taking the project forward will be in creating a pilot project at Discovery Award level, an all-encompassing, inclusive and representative industry working group will be being assembled, consisting of majors, SME's & independents. The importance of the participation of people from all areas was underlined, especially regarding the involvement of both SME's and independents.

Once finalised, the focus of the pilot project will be communicated through the British Science Associations well-established network, comprised of 31 branches, 5000 volunteers and around 2,000,000 people actively participating and engaged with the BSA.

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 this exciting and developing industry.

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

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:

Whilst working under an Apprenticeship Agreement;

or

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:

- 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.
- Allow the Apprentice access to support from a tutor, teacher, mentor or manager, as and when required by the Apprentice.
- Be completed while working under an Apprenticeship Agreement and delivered during contracted working hours.
- 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.
- 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.

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

- Pathway 1 Mining Operations: 362
- Pathway 2 Fixed Plant Operations: 407
- Pathway 3 Mobile Plant Operations: 408
- 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)

for each pathway in the Level 3 Extractives and Mineral Processing are as follows:

- Pathway 1 Mines - Electrical: 1413
- Pathway 2 Mines - Mechanical: 1470
- Pathway 3 Mines Shotfiring: 716
- Pathway 4 Mines Maintenance Supervision: 1270
- Pathway 5 Shotfiring: 706

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 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.

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 Extractives and Mineral Processing Framework.

For the pathways in the Level 2 Foundation Extractives and Mineral Processing Framework the minimum recommended amount of 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 304 LH off-the-job.
- Pathway 2 Fixed Plant Operations: For this pathway, an Apprentice will need to complete a recommended minimum of 304 LH off-the-job.
- Pathway 3 Mobile Plant Operations: For this pathway, an Apprentice will need to complete a recommended minimum of 304 LH off-the-job.
- Pathway 4 Extractives Drill Rig Operations: For this pathway, an Apprentice will need to complete a recommended minimum of 304 LH off-the-job.
- Pathway 5 Mines Rescue: For this pathway, an Apprentice will need to complete a recommended minimum of 304 LH off-the-job.
- Pathway 6 Blasting Operations: For this pathway, an Apprentice will need to complete a recommended minimum of 312 LH off-the-job.

For the pathways in the Level 3 Extractive and Minerals Processing Framework the minimum recommended amount of 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 746 LH off-the-job.
- Pathway 2 Mines - Mechanical: For this pathway, an Apprentice will need to complete a recommended minimum of 746 LH off-the-job.
- Pathway 3 Mines Shotfiring: For this pathway, an Apprentice will need to complete a recommended minimum of 364 LH off-the-job.
- Pathway 4 Mines Maintenance Supervision: For this pathway, an Apprentice will need to complete a recommended minimum of 746 LH off-the-job.

- Pathway 5 Shotfiring: For this pathway, an Apprentice will need to complete a recommended minimum of 364 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 person 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 Apprentices 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 person 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 Organisation for details of their procedures and requirements.

For Apprentices 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 (32 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 ERR certification. 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 (480 - 1080 LH)
- ERR - (32 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 ERR Certification. 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 / Quality Assurer.

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:

ON THE JOB LH FOR LEVEL 2 PATHWAYS

- Pathway 1 Mining Operations: a recommended minimum of 60 LH on-the-job
- Pathway 2 Fixed Plant Operations: a recommended minimum of 105 LH on-the-job
- Pathway 3 Mobile Plant Operations: a recommended minimum of 106 LH on-the-job
- 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 Shotfiring: a recommended minimum of 356 LH on-the-job

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 person 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 Apprentices 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 qualification (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).
- 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.
- 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

While Wider Key Skills are not a **mandatory** part of the framework, training providers are encouraged to provide apprentices the opportunity to achieve them.

For this framework, there are natural opportunities for Wider Key Skills to be embedded within the mandatory units of the following qualifications:

[Enter Qualification Names]

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.]

apprenticeship FRAMEWORK

For more information visit-
www.acwcerts.co.uk/framework_library