

# apprenticeship FRAMEWORK

## Higher Apprenticeship in Mineral Products Technology (England)

### IMPORTANT NOTIFICATION FOR ALL APPRENTICESHIP STARTS FROM 22 AUGUST 2017

Modifications to SASE came into effect on 22 August 2017. Accordingly, SASE publication DFE-00167-2017 applies both to new Apprenticeship starts from 22 August 2017 and all Apprenticeships commenced before and not completed by 22 August 2017.

For more details of the changes please read the following preface page to the framework document.

### Latest framework version?

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

[afo.sscalliance.org/frameworkslibrary/index.cfm?id=FR03034](http://afo.sscalliance.org/frameworkslibrary/index.cfm?id=FR03034)

Issue date: 26 August 2014

Issued by  
Proskills

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

Document status:  
**Issued**



# CHANGES TO THE ENGLISH AND MATHS REGULAR MINIMUM REQUIREMENTS FOR APPRENTICESHIP STARTS FROM 22 AUGUST 2017 AND APPRENTICESHIPS REMAINING INCOMPLETE ON 22 AUGUST 2017.

Modifications to SASE came into effect on 22 August 2017. Accordingly, SASE publication DFE-00167-2017 applies both to new Apprenticeship starts from 22 August 2017 and all Apprenticeships commenced before and not completed by 22 August 2017.

The modifications allow for an exemption to the English and Maths regular minimum requirements for people with Special Educational Needs, Learning Difficulties or Disabilities. This means that adjusting the minimum requirements to Entry Level 3 in English and Maths can be considered by the provider, on an individual and case-by-case basis, where **all of the conditions** of the updated SASE section 18 (Intermediate level) or section 37 (Advanced level) for have been satisfied and can be evidenced.

Full details relating to the exceptions eligibility criteria are contained in:

Sections 15-23 of SASE for Intermediate Level Apprenticeships  
Sections 34-42 of SASE for Advanced Level Apprenticeships

When applying this exemption, providers must **STILL** consider how to enable the Apprentice to access further literacy and numeracy development – including Level 1 and Level 2 courses – as part of their overall training provision.

The modifications to SASE have also extended the list of qualifications that meet the minimum English requirements to allow for a British Sign Language (BSL) qualification, at the appropriate level, to be accepted as an alternative to a qualification in English, where **BSL is the primary language of the Apprentice**.

Full details relating to BSL acceptance are contained in:

Section 5(f) of SASE for Intermediate Level Apprenticeships  
Section 28(f) of SASE for Advanced Level Apprenticeships

Furthermore, the SASE modifications have further extended the list of qualifications that meet the minimum English and Maths requirements to allow for the acceptance of a range of UK-wide qualifications, as an alternative to qualifications gained in England.

Full details relating to the list of acceptable qualifications are contained in:

Sections 5(g-j) and 6(f-i) of SASE for Intermediate Level Apprenticeships  
Sections 28(g-j) and 29(f-i) of SASE for Advanced Level Apprenticeships

The modifications include reference to the new numerical grades in the reformed GCSE system and the **minimum** grade requirements. A grade 4 (new grading) will be considered equivalent to a grade C (old grading). A grade 2 (new grading) will be considered equivalent to a Grade E (old grading).

Full details relating to the numerically graded GCSEs are contained in:

Sections 5 and 6 of SASE for Intermediate Level Apprenticeships  
Sections 28 and 29 of SASE for Advanced Level Apprenticeships

Please note that some frameworks may have English and Maths grade/level requirements that are **above** the SASE **regular** minimum requirements. The exceptions relating to the use of British Sign Language or Entry Level 3 qualifications, detailed above, **do not apply** to **industry-specific** minimum entry requirements. Please check specific framework documents to ascertain where this is the case and/or check directly with the Issuing Authority responsible for the framework.

The updated version of SASE, and guidance documents, can be accessed here:

[https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/630068/Specification\\_of\\_Apprenticeship\\_Standards\\_for\\_England\\_.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/630068/Specification_of_Apprenticeship_Standards_for_England_.pdf)

# Higher Apprenticeship in Mineral Products Technology (England)

## Contents

Framework summary .....	4
Framework information .....	5
Contact information .....	6
Revising a framework .....	7
Purpose of the framework .....	8
Entry conditions .....	12
Level 4: Mineral Products Technology (England) .....	14
Pathway 1: Technical and Managerial .....	15
Level 5: Mineral Products Technology .....	22
Pathway 1: Technical and Managerial .....	23
Equality and diversity .....	31
On and off the job guided learning .....	33
Personal learning and thinking skills .....	34
Additional employer requirements .....	35

# Framework summary

## Higher Apprenticeship in Mineral Products Technology

### Mineral Products Technology (England)

This framework includes information on Personal Learning and Thinking Skills

#### Pathways for this framework at level 4 include:

##### Pathway 1: Technical and Managerial

**Competence qualifications available to this pathway:**

C1 - Level 4 Diploma in Health, Safety and Environmental Management for Extractive and Mineral Processing Industries (QCF)

**Knowledge qualifications available to this pathway:**

K1 - Certificate of Higher Education: Mineral Products Technology

**Combined qualifications available to this pathway:**

N/A

**This pathway also contains information on:**

- Employee rights and responsibilities
- Functional skills

## Higher Apprenticeship in Mineral Products Technology

### Mineral Products Technology

This framework includes information on Personal Learning and Thinking Skills

#### Pathways for this framework at level 5 include:

##### Pathway 1: Technical and Managerial

**Competence qualifications available to this pathway:**

N/A

**Knowledge qualifications available to this pathway:**

N/A

**Combined qualifications available to this pathway:**

B1 - Foundation Degree Science: Mineral Products Technology

**This pathway also contains information on:**

- Employee rights and responsibilities
- Functional skills

# 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: 6	<b>This framework includes:</b>  Level 4 Level 5
Framework ID: FR03034	
Date this framework is to be reviewed by: 31/07/2016	
<b>This framework is for use in: England</b>	

## Short description

The Higher Apprenticeship framework for Mineral Products Technology at Level 4 and 5 has been designed to provide the Extractives, Cement, Concrete, Asphalt, Clay, and Deep Mining Industry sector with high grade technicians, managers and leaders of the industry for the future, combining practical skills with higher education qualifications and facilitate progression to Level 6 qualifications and beyond. Where appropriate it will interface with professional qualifications and recognition providing people with professional and transferable skills recognised across the industry and globally. Higher Apprentices graduating from the programme will, as they gain experience and further qualifications, have the opportunity to fulfill senior roles in management, operations and research within the sector.

# Contact information

## Proposer of this framework

This is an industry driven framework, developed to meet an identified need of the Mineral Products Technology Industry. It emerged from the Joint Consultative Committee, and industry chaired body comprising representatives of Hanson (Chair), Aggregate Industries, Professional Bodies (Institutes of Quarrying, Asphalt Technology, International Clay Technology Association, The Concrete Society) and the University of Derby. Additional support has been received from LaFarge/Tarmac, Cemex, St Gobain and Mines Rescue. All have assisted and collaborated in the development and proposal of this framework

## Developer of this framework

Name: Peter Revill  
Organisation: University of Derby  
Organisation type: Other  
Job title: Workforce Development Fellow  
Phone: 01332597809  
Email: p.revill@derby.ac.uk  
Postal address: Kedleston Road  
Derby  
DE22 1GB  
Website: [www.derby.ac.uk/corporate](http://www.derby.ac.uk/corporate)

## Issuing Authority's contact details

Issued by: Proskills  
Issuer contact name: Lisa Williamson  
Issuer phone: 01235 833 844  
Issuer email: [lisa.williamson@proskills.co.uk](mailto:lisa.williamson@proskills.co.uk)

# Revising a framework

## Contact details

Who is making this revision: Peter Revill  
Your organisation: University of Derby  
Your email address: p.revill@derby.ac.uk

## Why this framework is being revised

Framework revised to change the name of the level 4 HNC to a Certificate of Higher Education and the level 5 HND to a Foundation Degree

## Summary of changes made to this framework

The following changes have been made:

- Knowledge qualification at level 4 - change of name only from Higher National Certificate: Mineral Products Technology to Certificate of Higher Education: Mineral Products Technology
- Combined qualification at level 5 - change of name only from Higher National Diploma: Mineral Products Technology to Foundation Degree Science: Mineral Products Technology

## Qualifications removed

None - Change of name only

## Qualifications added

None - Change of name only

## Qualifications that have been extended

None - Change of name only

# Purpose of this framework

## Summary of the purpose of the framework

### National Apprenticeship Service (NAS) - Quality Statement

An Apprenticeship is a job with an accompanying skills development programme designed by employers in the sector. It allows the apprentice to gain technical knowledge and real practical experience, along with functional and personal skills, required for their immediate job and future career. These are acquired through a mix of learning in the workplace, formal off the job training and the opportunity to practice and embed new skills in a real work context. This broader mix differentiates the Apprenticeship experience from training delivered to meet narrowly focused job needs.

All apprentices commencing their Apprenticeship must have an **Apprenticeship Agreement** between the employer and the apprentice. This can then be used to reinforce the understanding of the requirements of the Apprenticeship.

On completion of the Apprenticeship the apprentice must be able to undertake the full range of duties, in the range of circumstances appropriate to the job, confidently and competently to the standard set by the industry.

The Higher Apprenticeship framework for Mineral Products Technology (England) at Level 4 and 5 has been designed to provide the Extractives, Cement, Concrete, Asphalt, Clay, and Deep Mining Industry sector with high grade technicians, managers and leaders of the industry for the future, combining practical skills with higher education qualifications and facilitate progression to Level 5 and 6 qualifications and beyond. Where appropriate it will interface with professional qualifications and recognition providing people with professional and transferable skills recognised across the industry and globally. Higher Apprentices graduating from the programme will fulfill senior roles in management, operations and research within the sector.

There are currently six sectors represented in this framework covering a wide range of job roles in the Mineral Products Technology industry and which broadly fit into the higher-level skills requirements for the following sectors:

- Extractives
- Asphalt
- Cement
- Concrete
- Clay
- Mining

For an overview of these various sectors within the industry go to the following,click on:



- [Institute of Quarrying \(IQ\)](#)
- [Institute of Asphalt Technology \(IAT\)](#)
- [The Concrete Society \(CS\)](#)
- [International Clay Technology Industry Association \(ICTa\)](#)
- [UK Coal](#)

The industry's primary role is to extract minerals from the ground for use in their natural form or to process them into added value products such as bricks, concrete and asphalt. These products are basic, but essential. They help to build our houses, hospitals and schools and our roads, railways and airports. It's an exciting and stimulating environment in which to work, offers excellent pay, job opportunities, travel, on-going training and cutting-edge technology, plus the chance to work in a variety of disciplines.

The Mineral Products Technology sector is diverse covering for example:

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

With the world's population predicted to increase from 6.5 billion to 9 billion by 2050, the demand for minerals is likely to increase. The Mineral Products Technology industry is challenged with satisfying this growing demand in a sustainable way, which requires science, engineering, technical and management skills of the highest quality and at a variety of levels. Expertise in these areas is becoming scarce and the industry is facing a global shortage of skilled professionals. This means our higher level apprentices who successfully complete their programme of study will be in demand.

The sector, with a turnover in excess of £2.5bn, is a key contributor to the construction sector and UK economy, representing some seven per cent of GDP or £110bn a year of expenditure. Over the last couple of decades the sector has experienced substantial consolidation, mainly through acquisition. Five major multinational companies – Lafarge/Tarmac, Hanson (part of HeidelbergCement), Aggregate Industries (part of the Holcim Group) and Cemex – account for the majority of sales in each of these markets.

This apprenticeship framework is the culmination of collaborative work between the companies of the industry it represents, the professional bodies, such as the Institute of Quarrying, which

support it, and the higher education institution with which it works. It is a reflection of the importance the industry and its partners place on the continuous up-skilling and development of its personnel to ensure the industry is in a position to make the most of future opportunities and the challenges presented within a complex and dynamic global economy.

The main occupations within the higher-level occupations within the industry are:

- Technicians - engineering technicians, draughts persons, laboratory technicians, electrical and electronics technicians and quality assurance technicians.
- Professionals – mechanical engineers, design and development engineers, production and process engineers and planning and quality control engineers.
- Managers – production, works and maintenance managers, research and development
- Process and Quality Assurance Managers.

Only a small proportion of this workforce is qualified to Level 4 or equivalent and above, which leaves a significant body of the workforce over half with qualifications below Level 4 or their equivalent. The workforce is predominantly white, male, with around 86% aged in the 25 – 60 range, which means that the workforce is aging.

In order to meet the challenges to fill higher-level occupational skills gaps, the sector's employers have increased training activity/spend or they are increasing and expanding trainee programmes, such as apprenticeships. The sector's employers are supporting this higher apprenticeship in Mineral Products Technology because it provides a cost effective, comprehensive package of qualifications with recognised progression routes to meet their higher-level skills needs.

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

Our Aim:

To support the provision within the Mineral Products Technology sector of high grade technicians, engineers and managers who possess practical skills combined with a higher education qualification to meet the skills needs of employers within the sector and to help them to improve productivity and remain competitive.

Objectives:

1. Provide apprentices with the technical knowledge, skills and competence at Level 4 and 5 in one framework to operate at higher supervisory management and technical levels, in the first instance, in Mineral Products Technology.
2. Attract high quality learners who wish to gain a higher education qualification while receiving a salary through a work based learning route;
3. Attract learners from diverse backgrounds to help address the equality and diversity

- challenges faced by the sector, including those of an ageing workforce;
4. Develop apprentices employability skills making them more attractive to all employers whichever career they choose;
  5. Help improve recruitment and retention rates within the industry by offering appropriate career progression into high level jobs and training, working towards
  6. Act as essential preparation for those who will eventually operate at Level 4, 5, 6 and beyond (Middle and Senior Management and Leadership roles).

# Entry conditions for this framework

This apprenticeship will suit enthusiastic individuals keen to learn and develop technical and supervisory skills in the 'hands-on' environment of an exciting and innovative industry. This programme is designed to develop the industry's future leaders and managers. The programme is challenging, but developmental and rewarding.

The Higher Apprenticeship is open to all people employed and who can demonstrate that they have the aptitude and potential to achieve the relevant Higher National Certificate in a technical/supervisory discipline. Whilst the framework does not prescribe the entry qualifications for the Higher Apprenticeship, as a general guide to the level of the Higher National Certificate the applicants should be:

- Progressing from an Advanced Level Apprenticeship in "Extractives and Mineral Processing Occupations" or
- At the start of their Apprenticeship have achieved at least 200 points at A/AS level and at least 5 GCSE's including Maths, English and Science and 2 other subjects at grade C or above; or
- Have qualifications such as Welsh Baccalaureate, Diploma, NVQ at Level 3 or Scottish Highers, or
- A portfolio of evidence which includes details of non-accredited courses and demonstrates previous experience of working at level 4 or 5.

The programme shall allow equal access to all applicants. Due to the competition for places the following skills and attributes relevant to working within the Mineral Products Technology industry may be considered as part of the application process;

The skills and attributes, which are relevant to the Industry footprint:

- Motivation to succeed within the industry.
- Willingness to adhere to employer/training provider terms and conditions of employment.
- Demonstrable commitment and awareness of the demands of the Higher Apprenticeship.
- Willingness to learn and apply that learning in the workplace.
- Ability to demonstrate that they have the potential to complete the qualifications which are part of the Higher Apprenticeship.
- Willingness to work with due regard to Health and Safety of self and others.
- Willingness to communicate effectively with a range of people.

It is likely too, that higher apprentices within the Mineral Products Technology industry, recognising that they have the potential to become its managers and leaders of the future, will be expected to undertake and experience a wide a range of job roles and consequently may be required to undertake shift work and work unsocial hours.

Apprentices must meet the specific entry requirements of the employing company and those

required to embark on a course of learning at an Institution of Higher Education.

All Higher Apprenticeship starts must be entered onto the Apprenticeship Certification England

## Level 4

Title for this framework at level 4

# Mineral Products Technology (England)

### Pathways for this framework at level 4

Pathway 1:      Technical and Managerial

## Level 4, Pathway 1: Technical and Managerial

### Description of this pathway

This pathway describes a generic programme of learning of 120 Higher Education credits at Level 4 and 79 QCF Credits at Level 4 designed to prepare apprentices for more specialist technical and managerial roles within the Mineral Products Technology industry. The Certificate of Higher Education contains a HE 20 credit module in Personal, Learning and Thinking Skills (PLTS)

Total Credit value for this pathway is therefore:

- Underpinning Knowledge and Understanding 120 HE credits at L4
- Competence 79 QCF credits at L4

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

As described within the general framework requirements; but in addition:

An ability and willingness to work outside, possibly in inclement weather conditions and in remote locations.

The ability to move safely in an outside environment with, in certain circumstances, no provision of constructed or asphalted pathways or roadways.

In some sectors of the industry there is a requirement to work safely at heights and in enclosed spaces, perhaps below ground.

<b>Job title(s)</b>	<b>Job role(s)</b>
Trainee Technical Supervisor	To gain experience and relevant qualifications in the operational and supervisory aspects of the Mineral Products Technology Industry.



# Qualifications

## Competence qualifications available to this pathway

C1 - Level 4 Diploma in Health, Safety and Environmental Management for Extractive and Mineral Processing Industries (QCF)					
No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
C1a	600/0737/0	MPQC	79	309	
C1b	600/1224/9	PAAVQSET	79	309	

## Knowledge qualifications available to this pathway

K1 - Certificate of Higher Education: Mineral Products Technology					
No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
K1a	N/A	University of Derby	120	1200	N/A

## Combined qualifications available to this pathway

N/A

## Relationship between competence and knowledge qualifications

**"Diploma in Health, Safety and Environmental Management for Extractive and Mineral Processing Industries"** (known in the industry as SHE4) is a QCF (79 credit) qualification. It is a requirement within the industry for operatives at this level and forms the competency qualification **and is undertaken in parallel with the Certificate of Higher Education.**

The **"Certificate of Higher Education: Mineral Products Technology"** is Higher Education work-based qualification: validated at level 4 of 120 credits providing the underpinning knowledge and understanding required to operate at this level within the industry and comprises the following modules:

Introduction to Mineral Products Technology (Mandatory) 40 HE credits

Personal Learning and Thinking Skills (Mandatory) 20 HE credits

Linked Courses follow:

*Health, Safety and Environmental Awareness in The Extractives and Mineral Processing Industry (Mandatory) 60 HE credits*

*Health, Safety and Environmental Management in The Extractives and Mineral Processing Industry (Mandatory) 79 QCF credits.*

# Transferable skills (England)

## Functional Skills / GCSE (with enhanced functional content) and Key Skills (England)

Apprentices must complete or have completed one of the English transferable skills qualifications and one of the Mathematical transferable skills qualifications listed below in order to successfully complete their Apprenticeship and this will carry the QCF five credit values. If they do not have these qualifications as part of their evidence an Apprenticeship certificate cannot be awarded.

English	Minimum level or grade	Credit value
Functional Skills qualification in English	N/A	N/A
GCSE qualification in English (with enhanced functional content)	N/A	N/A

\* achieved before September 2012 and within the 5 years immediately prior to starting an Apprenticeship.

\*\* achieved before September 2012, otherwise at any time prior to starting the Apprenticeship.

Mathematics	Minimum level or grade	Credit value
Functional Skills qualification in Mathematics	N/A	N/A
GCSE qualification (with enhanced functional content) in Mathematics	N/A	N/A

\* achieved before September 2012 and within the 5 years immediately prior to starting an Apprenticeship.

\*\* achieved before September 2012, otherwise at any time prior to starting the Apprenticeship.

## Inclusion of Information and Communications Technology (ICT)

# Progression routes into and from this pathway

The entry conditions described earlier, in this document indicate the requirements necessary

for entry into this programme and should be read alongside the brief description of additional entry requirements. The various websites of the companies supporting this framework in Mineral Products Technology will advertise when they have positions available which will describe in detail the person specification they are looking for and outline further details. These should be explored and researched by potential apprentice candidates. All of the companies involved will be happy to receive enquires and will be more than willing to answer questions, either by telephone, mail or email. The professional bodies also provide information about working in the industry and the opportunities available; weblinks for these are provided earlier in this document.

As a Higher Apprentice within the Industry, graduation from the apprenticeship may lead to a range of job-roles, including (and this list is not exhaustive, but intended to provide a flavour of the opportunities available):

- Site Supervisor
- Plant Supervisor
- Technical Manager
- Quality Manager
- Commercial: including Field Sales

The Mineral Products Technology industry is global and many of the larger companies operate sites across the world and opportunities for travel and to gain international experience may be possible.

This Higher Level Apprenticeship provides nationally recognised qualifications and excellent work experience designed to prepare apprentices for successful futures within the industry. The Industry, including the professional bodies are working with the University of Derby to ensure that suitable qualification progression routes exist which complement and support career development within the industry; this includes.

Progression to a Foundation Degree Science in Mineral Product Technology (240 HE Credits: 120 at level 4 [Certificate of Higher Education] and a further 120 credits at level 5).

From the Foundation Degree Science in Mineral Products Technology a progression route is now available at the University of Derby (Mineral Products Centre for Professional Development) allowing progression to a Bachelor of Science (Hons). The sky is then the limit, progression into senior management positions, post-graduate work including MBA and other post-graduate work including research.

**UCAS points for this pathway: n/a**

# Employee rights and responsibilities

N/A

## Level 5

Title for this framework at level 5

# Mineral Products Technology

### Pathways for this framework at level 5

Pathway 1:      Technical and Managerial

## Level 5, Pathway 1: Technical and Managerial

### Description of this pathway

This pathway describes a generic programme of learning of 120 Higher Education credits at Level 5 designed to further prepare apprentices for more specialist technical and managerial roles within the Mineral Products Technology industry.

The Foundation Degree Science in Mineral Products Technology contains 240 HE credits at level 4 and 5 of which 120 credits must be at level 5

Mandatory:

First Line Supervisory Management (20 credits at Level 5)

Work-based Study (20 credits at level 5)

Electives:

Apprentices then select (in collaboration with their employers) modules (equivalent to 80 credits at level 5) relevant to and determined by their work-based pathway, which will be either: Extractives Technology, Concrete Technology, Asphalt Technology, Clay Technology, Cement Technology or Deep- Mining Technology.

Total Level 5 HE credits = 120

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

As described within the general framework requirements; but in addition:

Must have completed the programme of study in Mineral Products Technology achieving 120 credits at level 4 (HNC/Certificate of Higher Education equivalent).

An ability and willingness to work outside, possibly in inclement weather conditions and in

remote locations.

The ability to move safely in an outside environment with, in certain circumstances, no provision of constructed or asphalted pathways or roadways.

In some sectors of the industry there is a requirement to work safely at heights and in enclosed spaces, perhaps below ground.



<b>Job title(s)</b>	<b>Job role(s)</b>
Trainee Technical Supervisor/Manager	To gain experience and relevant qualifications in the operational, supervisory and management aspects of the Mineral Products Technology Industry

# Qualifications

## Competence qualifications available to this pathway

N/A

## Knowledge qualifications available to this pathway

N/A

## Combined qualifications available to this pathway

B1 - Foundation Degree Science: Mineral Products Technology					
No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
B1a	N/A	University of Derby	240	2400	N/A

## Relationship between competence and knowledge qualifications

This Foundation Degree Science in Mineral Products Technology is specifically designed to integrate competence and knowledge elements. This integrated approach means that both knowledge and competence are assessed through the submission of various assignments, projects and exams.

# Transferable skills (England)

## Functional Skills / GCSE (with enhanced functional content) and Key Skills (England)

Apprentices must complete or have completed one of the English transferable skills qualifications and one of the Mathematical transferable skills qualifications listed below in order to successfully complete their Apprenticeship and this will carry the QCF five credit values. If they do not have these qualifications as part of their evidence an Apprenticeship certificate cannot be awarded.

English	Minimum level or grade	Credit value
Functional Skills qualification in English	N/A	N/A
GCSE qualification in English (with enhanced functional content)	N/A	N/A

\* achieved before September 2012 and within the 5 years immediately prior to starting an Apprenticeship.

\*\* achieved before September 2012, otherwise at any time prior to starting the Apprenticeship.

Mathematics	Minimum level or grade	Credit value
Functional Skills qualification in Mathematics	N/A	N/A
GCSE qualification (with enhanced functional content) in Mathematics	N/A	N/A

\* achieved before September 2012 and within the 5 years immediately prior to starting an Apprenticeship.

\*\* achieved before September 2012, otherwise at any time prior to starting the Apprenticeship.

## Inclusion of Information and Communications Technology (ICT)

Not applicable to Higher Apprenticeships

# Progression routes into and from this

# pathway

The entry conditions described earlier, in this document indicate the requirements necessary for entry into this programme and should be read alongside the brief description of additional entry requirements. The various websites of the companies supporting this framework in Mineral Products Technology will advertise when they have positions available which will describe in detail the person specification they are looking for and outline further details. These should be explored and researched by potential apprentice candidates. All of the companies involved will be happy to receive enquires and will be more than willing to answer questions, either by telephone, mail or email. The professional bodies also provide information about working in the industry and the opportunities available; weblinks for these are provided earlier in this document.

As a Higher Apprentice within the Industry, graduation from the apprenticeship may lead to a range of job-roles, including (and this list is not exhaustive, but intended to provide a flavour of the opportunities available):

Site Supervisor

Plant Supervisor

Technical Manager

Quality Manager

Commercial: including Field Sales

The Mineral Products Technology industry is global and many of the larger companies operate sites across the world and opportunities for travel and to gain international experience may be possible.

This Higher Apprenticeship provides nationally recognised qualifications and excellent work experience designed to prepare apprentices for successful futures within the industry. The Industry, including the professional bodies are working with the University of Derby to ensure that suitable qualification progression routes exist which complement and support career development within the industry; this includes.

From the Foundation Degree Science in Mineral Products Technology a progression route is now available at the University of Derby allowing progression to a Bachelor of Science (Hons). The sky is then the limit, progression into senior management positions, post-graduate work including MBA and other post-graduate work including research.

**UCAS points for this pathway: N/A**

# Employee rights and responsibilities

N/A

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

## How equality and diversity will be met

The Higher Apprenticeship in Mineral Products Technology aims to promote diversity, opportunity and inclusion by offering high quality learning and work experience opportunities.

The delivery of this framework must be in environments free from prejudice and discrimination and where all learners can contribute freely and feel valued.

There must be no overt or covert discriminatory practices in the selection and recruitment of apprentices to the programme, which is available to all regardless of gender, ethnic origin, religion or belief, sexual orientation or disability and who meet the stated selection criteria.

### Barriers

A significant proportion of the industry employers comprises micro or small to medium sized enterprises and many of these employers cannot cover the full range of services of the few larger employers.

Career advice regarding entry into the industry is often poor and ill-informed.

The industry is dispersed and in some instances often in remote locations.

The workforce is predominantly white, male and with around 86% aged 25- 60 with a skew toward the higher end.

### Actions

Introduction of the Higher Apprenticeship. Whilst this in itself cannot solve all of these issues, its introduction is a positive step by the industry which seeks to address them over time. The industry invests heavily in training including that in equality and diversity and alongside the actions below hopes to make significant inroads into any imbalances and perceptions.

The industry will, with its partners:

challenge its employers large and small, in adopting this framework think beyond traditional entry routes to jobs:

Be as flexible as possible when considering entry conditions to the framework to encourage applications from a wide range of applicants

Mentoring both academic and of apprentices is considered an important part of this framework

Development of clear career pathways delineating progression and opportunities. These to be

made available through sector companies, professional bodies and issuing authority web-sites and designed to encourage people from whatever background to consider the exciting opportunities for rewarding and satisfying careers within the Mineral Products Technology industry.

Representatives of these bodies and companies will regularly attend regional and national career fairs and skills events to promote apprenticeships, providing an ideal opportunity to present the industry and to address perceived issues faced by women and ethnic minorities.

Representatives of the industry also participate in a range of activities, at which such issues can be addressed and where career opportunities within the industry can be promoted, such as STEM and Women into Science and Engineering.

It is hoped that the apprentices themselves will be able to contribute positively to this work.



# On and off the job guided learning (England)

## Total GLH for each pathway

GLH does not apply to Higher Apprenticeship frameworks

## Minimum off-the-job guided learning hours

N/A

## How this requirement will be met

N/A

## Minimum on-the-job guided learning hours

N/A

## How this requirement will be met

N/A

# Personal learning and thinking skills assessment and recognition (England)

## Summary of Personal Learning and Thinking Skills

PLTS does not apply to Higher Apprenticeship frameworks

### Creative thinking

N/A

### Independent enquiry

N/A

### Reflective learning

N/A

### Team working

N/A

### Self management

N/A

### Effective participation

N/A

# Additional employer requirements

None

---

apprenticeship  
FRAMEWORKS ONLINE

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