

Level 2 End-point Assessment for ST0096/AP01 Plasterer (9086-12)

October 2020 Version 1.0

**End-point Assessment
Scoping document**

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1 Introduction

What is in this document

- The occupational standard
- City & Guilds scoping of standard

About this apprenticeship occupation

This End-point Assessment (EPA) pack has been designed to assess all requirements as stipulated in the ST0096 assessment plan version 01

This occupation is found in both the new build and refurbishment construction sector which is the driving force behind the UK economy, employing three million people and contributing 6.4% of Gross Domestic Product (GDP). Not only that, the construction industry is central to delivering the homes, schools, hospitals, energy and transport infrastructure our society demands. A career in the construction industry is like no other. Plastering is a core function within the construction sector, particularly the house building sector and refurbishment sectors. The Government has a target to build significantly more new homes over the coming years and therefore the demand for plasterers has never been higher.

The broad purpose of this occupation is to apply layers of plaster onto walls, floors and ceilings, apply and form various render surfaces. Plastering serves a protective function, in that it makes buildings more robust and also an aesthetic function enhancing appearance. Plasterers will often complete dry lining projects during their career. Although a person may specialise solely in dry lining, a plasterer must have the knowledge of dry lining in addition to their knowledge and skills to plaster.

The occupation covered by this apprenticeship standard is for a Plasterer that will specialise in either Solid or Fibrous plaster work after undertaking the core learning (which includes introductory elements of both solid and fibrous plastering).

In their daily work, an employee in this occupation interacts with commercial and domestic customers, other trades, architects and site managers. All plasterers can work on their own or as part of a small team. They work on small-scale domestic jobs, large repair and restoration projects and on big commercial developments such as schools or hospitals, therefore coming into contact with a wide range of people.

Whilst some plasterers are directly employed by companies specialising in plastering, there are a lot who are sub-contracted by companies to work on new or existing buildings.

An employee in this occupation will be responsible for:

- **Solid plastering** involves applying a range of plastering systems and rendering on to different background surfaces using traditional and modern materials. Background surfaces include solid plain and complex walls, walls with openings and returns, ceilings and partitions and beams and piers that are attached or independent of walls. Solid plastering work includes preparing solid backgrounds by hand and mechanical means and installing sheet materials such as expanded metal lath/rib lath, standard angle beads, skim beads, stop beads, expansion beads and reinforcements for the application of one, two or three coat plastering and rendering systems. As a solid plasterer you would mainly be installing products on site.
- **Fibrous plastering** involves creating plaster components with either a modern contemporary design or with an ornamental enrichment to a classical design. These components could include lighting troughs, beam and column casings, ceiling roses, complete ceilings, cornices, panel mouldings and many others. They are produced using plaster that is reinforced with hessian canvas and timber laths (fibrous) or artificial fibres (Glass fibre Reinforced Gypsum). As a fibrous plasterer you would produce work in a workshop in addition to installing products on site. You will find fibrous work in traditional and modern buildings and sometimes in the film industry.

Apprenticeship Occupational Standard

Core occupation duties

Duty	KSBs
Duty 1 Identify and confirm plastering requirements and components against a survey/job sheet/specification/drawings/CAD/BIM and in accordance with Building Regulations.	K4, K5, K6 B4
Duty 2 Locate, handle, store, load, transport and position plastering materials and components safely, minimising damage so they are ready for application and where applicable, in accordance with Working at Height regulations.	K1 S1, S2
Duty 3 Prepare the site/work area (including access equipment when necessary), power and hand tools appropriate to the project.	K1 S2, S3
Duty 4 Prepare background substrates for internal solid plastering, dry lining and external rendering.	K4, K5, K6, K8, K9 S1
Duty 5 Apply sealers and bonding agents to ensure plaster and render adhesion in line with the manufactures instructions.	K5, K8, K9 S1
Duty 6 Identify and select appropriate plastering materials, modern pre-blended and loose plasters, renders and additives including compounds, fixings, performance plasterboards, reinforcements and beads to carry out the plastering work in line with specifications and manufactures instructions.	K5, K6, K7, K10 S1, S4, S5, S6, S7, S9, S10, S11, S12, S14
Duty 7 For internal plastering cut and fix a range of standard and thin coat beads/trims to form true surfaces such as corners/returns for openings,	K8 S6, S7, S9, S12
Duty 8 For external rendering fix and form stops/expansion joints and bell casts to form drips for weathering	K4, K5, K9 S2, S3, S11

Duty	KSBs
Duty 9 Mix plasters and rendering materials including additives to a workable consistency. Select correct additives and reinforcements.	K5, K8, K9 S5, S10, S11
Duty 10 Cut, fix and install metal framed partitions, wall linings and openings. Cut and fix plasterboard mechanically and by direct bond in accordance with drawings and specifications.	K5, K7 S4
Duty 11 Finish plasterboard surfaces by tape and joint or finishing plasters.	K5 S4
Duty 12 Apply one and two coat plastering systems to plain and window walls and ceilings, protecting the work area and making good when necessary.	K2, K5, K8, S3 S5
Duty 13 Apply and finish a range of rendering systems to external elevations	K2, K5, K9 S3, S11
Duty 14 Clear away leftover materials on completion of project and disposal of waste appropriately according to the appropriate code of practice.	K1, K2 S2, S3
Duty 15 Communicate professionally with colleagues, customers and stakeholders, providing a high level of customer service at all times.	K3 S2, S3 B1, B2, B3
Duty 16 Repair existing plasterwork, making good, restoring it to its original state.	K4, K5 S8
Duty 17 Construct positive or negative running moulds according to specifications and drawings.	K5 S6, S7
Duty 18 Install cast mouldings according to specifications and customer requirements.	K5 S9

Solid plastering duties

Duty 19 Interpret the appropriate work plan for the job, taking into account factors such as background substrates, building age, listed status, accessibility, quality of surrounding wall, other trades in the work area, customers and related legislation and regulations.	K2, K3, K4, K5 S1, S2, S3 B2
Duty 20 Apply a range of plastering coats and finishes including heritage lime mortars according to specifications.	K8, K9
Duty 21 Apply and finish a range of plastering and rendering systems according to specifications.	K9 S11
Duty 22 Apply ancillary works according to drawings and specifications. e.g lathing, beads and trims	K10 S12
Duty 23 Conduct interim and final inspections of the work and work area.	K1, K2, K3 B1

Fibrous plastering duties

Duty 24 Produce reverse moulds according to drawings and specifications	K11 S13
Duty 25 Cast mouldings from a range of materials including fibrous plaster, GRG and GRC (glass fibre reinforced cement)	K12 S14
Duty 26 Install a range of cast mouldings according to drawings and customer requirements e.g. arches and columns	K13 S14
Duty 27 Restore existing mouldings, considering different types, materials and appropriateness to building structure and age.	K14 S15

Knowledge

K1: Health and safety: Health and safety hazards, current regulations and legislation. Codes of practice and safe working practices, including asbestos awareness and correct use of personal protective equipment (PPE).

K2: Customer service: The principles of high quality customer service. Establishing the needs of others (colleagues, customers and other stakeholders). Respect the working environment including customers' properties, impact on other trades and the project.

K3: Communication: Different communication methods. How to communicate in a clear, articulate and appropriate manner. How to adapt communication style to different situations. How to interpret and use drawings and specifications.

K4: Buildings: Different eras, types of construction methods, insulation considerations, facilities, fire protection. The importance of thermal/insulation to buildings, damp proofing/tanking, renovation and restoration.

K5: Materials: Types of traditional and modern materials; moving, handling and storage of them; their uses and characteristics, e.g. types, condition, strength and compatibility. Cost awareness and environmental considerations/waste awareness, e.g. surface water management and recycling. Chemical damp proofing installation, moisture effects and damage.

K6: Considerations before completing plastering work: u-values, insulation, impact, fire proofing around steel work.

K7: Dry lining: materials, methods, and finishes.

K8: Application methods for different types of mortars and finishes, including heritage and how to re-instate plastering systems post chemical damp-proof injection.

K9: Application methods for different types of render systems including colour rendering; run in situ moulding work in sand and cement.

K10: How to fix ancillary works including beads, trims and how to use additives to form a mechanical key.

K11: How to produce reverse moulds such as enriched cornices, arches, columns, pilasters, corbels ceiling centre and beam case.

K12: How to cast from reverse moulds in fibrous plaster, GRG (glass fibre reinforced gypsum) and GRC (glass fibre reinforced concrete)

K13: How to fix a range of cast mouldings such as enriched cornice, arches, columns, pilasters, corbels, ceiling centre and beam casing.

Knowledge

K14: How to restore existing mouldings including how to take squeezes of different types of mouldings using plaster, clay and silicone rubber to reproduce mouldings to match the original.

Skills

S1: Materials: Identify and prepare surfaces for plastering. Determine quantities and ratios of materials. Move, handle and store materials.

S2: Safe Working: Adhere to relevant health and safety legislation, codes of practice and apply safe working practices, including when working at heights.

S3: Working environment: Select appropriate tools, equipment, materials and components where necessary. Interpret and use drawings and specifications including BIM/CAD. Maintain a clean working area.

S4: Fixing and jointing plasterboard: Construct metal framed partitions, wall linings and openings in preparation for boarding. Mechanically install plasterboard to timber and lightweight metal framing. Direct bond plasterboard to masonry. Use hand applied and machine applied tape and jointing systems.

S5: Plastering: Apply solid plastering systems using one and two coat plastering to internal surfaces.

S6: In-situ moulds: Construct running moulds to match existing moulding design, set up running rules and plaster screeds, run in-situ moulding work including coring out using bracketing on solid backgrounds. Assemble benches, run short breaks and form stop ends, make good internal and external mitres and returned ends.

S7: Running moulds: Construct positive or negative running moulds. Set down running rules correctly. Run reverse moulds and prepare for casting. Run panel moulds. Take casts from reverse moulds.

S8: Repairing existing plaster: Renovate and restore internal and external effected surfaces back to original state.

S9: Install cast mouldings: Install cornice mouldings including forming internal and external mitred angles.

S10: Plastering: Apply three coat plastering, including heritage lime mortars and finishes, and machine applied plaster; sealings and bonding agents, re-instate plastering systems after chemical damp proof injection.

S11: Rendering: Apply traditional, modern and machine applied render systems including colour rendering; run in situ moulding work in sand and cement.

Skills

S12: Ancillary works: Fix beads and trims, use additives and form mechanical keys as required, mechanically fix EML, rib lath and timber lath.

S13: Reverse moulds: Produce reverse moulds (e.g. enriched cornices, arches, columns, pilasters, corbels ceiling centre and beam case).

S14: Casting: Cast from reverse moulds in fibrous plaster, GRG and GRC (glass fibre reinforced cement) Fixing cast mouldings: install cast mouldings (e.g. enriched cornice, arches, columns, pilasters, corbels, ceiling centre and beam casing).

S15: Restoration of existing mouldings: Take squeezes of different types of mouldings using plaster, clay and silicone rubber to reproduce mouldings to match the original; produce and install mouldings for the repair of existing mouldings.

Behaviours

B1: Positive and mature attitude: Conscientious, punctual, enthusiastic, reliable and professional including appearance. Take responsibility for personal judgements and actions. Be aware of the limits of personal competence. Show drive and energy in fulfilling requirements of role, including deadlines and being proactive not reactive. Show honesty and integrity by developing the trust of customers and colleagues and undertaking responsibilities in an ethical and empathetic manner. Demonstrate awareness of equality and diversity in all aspects of role.

B2: Quality focused: Be reliable, productive, efficient and quality focussed in work and in personal standards to current industrial standards. Awareness and consideration of other trades, e.g. plaster walls in a way that allows for pipes and electrical wiring. Keep work area clean and tidy. Provide protection to adjacent finishes to avoid possible damage. Provide good customer service. Give consideration to the appropriate use of resources and personal actions in regards to environmental, social and economic factors and their impacts.

B3: Effective communication: Oral (including listening), written, body language and presentation. Collaborate with others, e.g. colleagues, clients, architects, contract managers, other trades, clients, suppliers and the public regardless of differences in race, gender, sexual orientation, or other characteristics.

B4: Self-motivated learner: Identify personal development needs and take action to meet those needs. Keep up-to-date with best practice and new technology. Show initiative to independently complete work and solve problems by seeking out critical information.

Scoping Content for the Plasterer Standard (ST0096/AP01)

City & Guilds have reviewed the Plasterer Standard and with each element have written the range and depth of our interpretation of the content within it so that employers and training providers are aware of the limits of each piece of the Knowledge, Skills and Behaviours and how City & Guilds as an EPAO see each piece of the Standard. The range and depth of the content is what City & Guilds write their assessments to.

Core Skills

CS1: Materials: Identify and prepare surfaces for plastering. Determine quantities and ratios of materials. Move, handle and store materials.

Identifying and preparing surfaces

Types of backgrounds:

- Masonry, brick, block, timber, concrete, metal, composite, painted and un-painted.

Characteristics of backgrounds:

- High, medium and low suction, damp affected and unstable.

Metal frame structures:

- Walls with openings and returns

Types of surfaces:

- Plain and complex walls (plasterboard and solid), splayed angles, obtuse angles, soffits, returns, beams, curved, piers and columns.

Methods of preparation:

- Backgrounds: Brushing, scraping, hacking, scabbling, cutting back, scoring, fixing, neutralizing and damping down, controlling suction.
- Priming, sealing, applying bonding agents
- Type of beads, location, position, levelling, plumbing, fixing, forming opening returns and stops.

Determining quantities and ratios of materials

Information sources:

- Manufacturer's guidelines, specifications, technical drawings.

Calculating quantities:

- Area, linear, volume, percentages and ratios including allowance for waste.

Moving and handling considerations:

- Manual lifting techniques, transportation, mechanical lifting aids and PPE requirements.

Types of Materials:

- Loose, bagged, liquids, sheets, lengths, rolled, fixings, and components (for solid and fibrous).

Storage considerations:

- Stock rotation, theft, damage, deterioration, contamination, exposure and explosion.

CS2: Safe Working: Adhere to relevant health and safety legislation, codes of practice and apply safe working practices, including when working at heights.

Legislation:

- Health and Safety at Work Act (HASWA)

Codes of practice:

- Manual Handling Operations Regulations
- Lifting Operations and Lifting Equipment Regulations (LOLER)
- Control of Substances Hazardous to Health (COSHH) (data sheets)
- Management of Health and Safety at Work Regulations
- Working at Height Regulations
- Reporting of Injuries Diseases and Dangerous Occurrences (RIDDOR)
- Provision and Use of Work Equipment Regulations (PUWER)

Safe working practices:

- Following and complying risk assessments/method statements, site inductions, toolbox talks, and appropriate use of PPE.

CS3: Working environment: Select appropriate tools, equipment, materials and components where necessary. Interpret and use drawings and specifications. Maintain a clean working area.

Materials:

- Solid plastering: Traditional/modern, loose materials, pre-blended, pre-mixed, additives, beads, plasterboard, fixing components.

Preparing hand and power tools:

- Installing, mixing and applying hand and power tools and resources
- Cleaning equipment, access equipment

Interpret and use drawings and specifications.

Construction drawings:

- Elevation
- Floor plans
- Section through
- Site plans
- Full scale.

Specifications:

- Type of materials
- Type of finish
- Mix ratios
- Method of installation.
- Standards of workmanship

Maintain a clean working area:

- Good housekeeping when preparing backgrounds
- Setting up working area for installing
- Mixing and applying different plaster products/ systems
- Stacking materials safely

CS4: Fixing and jointing plasterboard: Construct metal framed partitions, wall linings and openings in preparation for boarding. Mechanically install plasterboard to timber and lightweight metal framing. Direct bond plasterboard to masonry. Use hand applied and machine applied tape and jointing systems.

Construct partitions and finish:

- Prepare substrates
- Set out from datums and dimensions
- Install systems
- Fix and finish plasterboard surfaces

CS5: Plastering: Apply solid plastering systems using one and two coat plastering to internal surfaces.

Prepare, set out, mix, apply and finish

Solid plastering systems:

- Traditional/modern methods and materials,

Internal surfaces:

- Float and set

Backgrounds:

- Masonry (brick, block, stone, concrete)
- Plasterboard
- Composite

CS6: In-situ moulds: Construct running moulds to match existing moulding design, set up running rules and plaster screeds, run in-situ moulding work including coring out using bracketing on solid backgrounds. Assemble benches, run short breaks and form stop ends, make good internal and external mitres and returned ends.

Take a squeeze:

- Plain or Decorative.

Construct a running mould to produce:

- Straight
- Curved
- Elliptical
- Diminished

Produce mouldings:

- Pre-cast mouldings
- Running mouldings in-situ
- Hand modelling
- Run casts.
- Processes:
- Floating walls and ceilings
- Fixing brackets
- Lathing out
- Fixing running rules
- Construct running moulds
- Apply pricking up coat
- Muffle coat
- Finish coat.

Finishing:

- Running sections on bench
- Coring and floating out mitres
- Cutting and mitring internal mitres
- External mitres
- Straight joints.

Materials:

- Hydraulic limes
- Non- hydraulic limes
- Casting plasters
- Silicones
- Release agents
- Retarders
- Laths
- Additives
- Sealers
- Reinforcements.

Resources:

- Hand and power tools
- Plant
- Access equipment.

CS7: Running moulds: Construct positive or negative running moulds. Set down running rules correctly. Run reverse moulds and prepare for casting. Run panel moulds. Take casts from reverse moulds.

Construct a running mould to produce:

- Plaster models
- Straight
- Curved
- Elliptical
- Diminished.

Preparation for running:

- Prepare surfaces and seal bench and fix running rules.

Produce reverse moulds:

- Reverse mould and casting process
- Plaster loose piece
- Case moulds.

Materials:

- Casting plasters
- Silicones
- Release agents
- Retarders
- Laths
- Additives
- Sealers
- Reinforcements
- Jesmonite
- Fibrecem.

Resources:

- Hand and power tools.

CS8: Repairing existing plaster: Renovate and restore internal and external effected surfaces back to original state.

Surfaces:

- Traditional
- Modern

Backgrounds:

- Masonry
- Stone
- Brick
- Block
- Concrete
- Timber laths
- Plasterboard
- EML (expanded metal lathing)
- EWI (external wall insulation)

Prepare, set out, mix, apply and finish

Materials:

- Traditional
- Modern
- Bonding agents
- Sealers and additives
- Reinforcements

CS9: Install cast mouldings: Install cornice mouldings including forming internal and external mitred angles.

Setting out:

- Projection
- Depth
- Springing lines/chord lines
- Datum points.

Types of backgrounds:

- Painted plastering
- Unpainted plastering
- Primary suspended mf grids
- Steel columns
- Masonry backgrounds.

Methods of Installation:

- Mechanically fixed
- Wire and wad
- Bedded and wading.

Types of mitres/joints:

- Internal
- External
- Straight
- Curved
- Lapped
- Rebated.

Possible fixing and finishing defects:

- Moulding members out of line and not intersecting
- Moulding members not plumb
- Mitres not sharp
- Mitres out of line
- Returns out of square
- Walls and ceiling not clean.

Solid Skills

S10: Plastering: Apply three coat plastering, including heritage lime mortars and finishes, and machine applied plaster; sealings and bonding agents, re-instate plastering systems after chemical damp proof injection.

Prepare, set out, mix, apply and finish

S11: Rendering: Apply traditional, modern and machine applied render systems including colour rendering; run in situ moulding work in sand and cement.

Backgrounds:

- Masonry
- Stone
- Brick
- Block
- Concrete
- Cement board
- EML (expanded metal lathing)
- EWI (external wall insulation)

Render systems including EWI:

- Plain
- Textured
- Traditional
- Colour through render
- Thin coat

Prepare, set out, mix, apply and finish.

S12: Ancillary works: Fix beads and trims, use additives and form mechanical keys as required, mechanically fix EML, rib lath and timber lath.

Fix beads and trims:

- Plaster dabs
- Direct nailing
- Staples
- Mechanical fix.

Form mechanical keys:

- Scabbling
- Key comb scratch
- Hacking
- Grinding
- Bonding agents
- Bonding slurry
- Bonding grit

Fibrous Skills

S13: Reverse moulds: Produce reverse moulds (eg enriched cornices, arches, columns, pilasters, corbels ceiling centre and beam case).

Types of mouldings:

- Decorative,
- Plain
- Straight
- Curved
- Elliptical
- Diminished
- Spherical
- Vaulted.

Techniques:

- Running
- Spinning
- Turning
- Pouring
- Forming.

Methods:

- One piece
- Loose piece
- Case moulds
- Insertion moulds
- Flood moulds.

Materials:

- Various grades of casting plaster
- Fibre glass materials
- Silicones
- Reinforcements
- Laths
- Sealer
- Release agents
- Clay
- Plaster additives.

Considerations:

- Size of the moulding
- Balancing of enrichments
- Quantity of casts
- Size of casts
- Face finish of cast
- Under cut sections
- Size of radius.
- Weight

Possible defects:

- Chattering
- Gathering on.

S14: Casting: Cast from reverse moulds in fibrous plaster, GRG and GRC (glass fibre reinforced cement) Fixing cast mouldings: install cast mouldings (eg enriched cornice, arches, columns, pilasters, corbels, ceiling centre and beam casing).

Methods:

- Run casts
- Two-gauge casting
- One-gauge
- Dry packing
- Laminating.

Materials:

- Various grades of casting plaster
- Types of reinforcements
- Laths
- Jesmonite
- Grg
- Fibrecem
- Sealers
- Release agents
- Plastering additives.

Considerations:

- Setting times of plaster
- Tensile face strength of cast
- Weight of cast
- Position of laths and brackets
- Method of fixing
- Method of jointing.

Possible cast defects:

- Delaminating
- Shelling
- Cockling
- Canvas grinning
- Air bubbles
- Uneven strike offs.
- Poor storage/warping

S15: Restoration of existing mouldings: Take squeezes of different types of mouldings using plaster, clay and silicone rubber to reproduce mouldings to match the original; produce and install mouldings for the repair of existing mouldings.

Considerations:

- Type of building
- Type of original material
- Suitable working sections
- Pattern repeats
- Undercut sections
- Size of moulding
- Quantity required

Methods of taking a squeeze:

- Rubber
- Plaster
- Removal of section
- Cut through
- Pin gauge.

Methods of restoring mouldings:

- Pre-cast mouldings
- Running mouldings in-situ
- Hand modelling.

Materials:

- Hydraulic limes
- Non-hydraulic limes
- Casting plasters
- Laths
- Riven laths
- Reinforcements
- Release agents
- Silicones
- Additives.

In-situ run work:

- Types of running moulds
- Processes for running in-situ.

Core Knowledge (multiple choice questions)

CK1: Health and safety: Health and safety hazards, current regulations and legislation. Codes of practice and safe working practices, including asbestos awareness and correct use of personal protective equipment (PPE).

Health and safety hazards:

- Risk assessments
- Method statements
- Accident recording and reporting
- Toolbox talks
- Inductions.

Regulations and legislation, employer and employee responsibilities:

- Health and Safety at Work Act (HASAWA)
- Control of Substances Hazardous to Health (COSHH)
- Reporting of Injuries, Diseases and Dangerous Occurrences Regulations (RIDDOR)
- Construction, Design and Management (CDM) Regulations
- Provision and Use of Work Equipment Regulations (PUWER)
- Manual Handling Operations Regulations
- Personal Protective Equipment at Work Regulations
- The Work at Height Regulations
- Lifting Operations and Lifting Equipment Regulations (LOLER)
- The Electricity at Work Regulations
- The Control of Noise at Work Regulations
- The Control of Vibration at Work Regulations

Codes of practice and safe working practices, including asbestos awareness:

- Know how to obtain/download Approved Codes of Practice from HSE website
- Know identifying features of asbestos and HSE directives on dealing with it.

CK2: Customer service: The principles of high quality customer service. Establishing the needs of others (colleagues, customers and other stakeholders). Respect the working environment including customers' properties, impact on other trades and the project.

Principles of customer service:

- Positive communication, reliability, punctuality, dressing in an appropriate manner, maintaining good personal hygiene, honesty, trustworthiness, completing work to schedule and within timeframes, meeting industry standards
- Promote a feeling that the customer's property is cared for, listen carefully and respectfully when communicating verbally

Establishing the needs of others:

- Showing empathy
- Teamworking,
- Roles and responsibilities of key team members:
 - site/workshop manager
 - foreperson; contracts/production manager
 - supervisor; charge hand
 - operative
 - general operative/labourer
 - apprentice; s
 - sub-contractors
- Roles and responsibilities of professionals:
 - architect
 - engineers (civil, structural, surveyor, mechanical services)
 - clerk of works
 - quantity surveyor.

- Effective working: planning, reviewing strategies; methods of communication; hierarchical structures; meetings and agendas; planning and impact of not following plan for other teams, progress charts

Respecting the working environment:

- In relation to the customer, public, other trades, materials, tools and equipment; protection measures (eg sheeting over easily damaged items);
- Keeping the work area and surroundings tidy, storing materials neatly and considerately, appropriate disposal and segregation of waste, being aware of building character, style, restoration
- Conforming to conservation works, listed building and planning consent

Impact:

- Planning work activities to take account of the needs of other trades
- Being aware of others and surrounding areas eg noise, traffic, machinery, parking, access

CK3: Communication: Different communication methods. How to communicate in a clear, articulate and appropriate manner. How to adapt communication style to different situations. How to interpret and use drawings and specifications.

Communication methods:

- Verbal (face to face, phone, video conferencing, site radio, induction, toolbox talks, site meetings)
- Body language (facial expressions, stance, gestures, posture)
- Written (eg letter, agenda, e-mail, text message, minutes, quote, list, plan)

Appropriate selection of communication method

How to communicate in a clear, articulate and appropriate manner:

- Be respectful, think before speaking
- Express details concisely
- Ask for confirmation of understanding
- Understanding the limits of own understanding
- Understanding the limits of own role/responsibility

Communication styles:

- Formal
- Informal

How to adapt communication style to different situations:

- Interact in a professional manner, with different people eg customer, tradesperson

Interpreting and using drawings and specifications:

- Including Manufacturers' technical information
- Planning, scheduling, installation, level of authority, variations, industry standards

CK4: Buildings: Different eras, types of construction methods, insulation considerations, facilities, fire protection. The importance of thermal/insulation to buildings, damp proofing/tanking, renovation and restoration.

Different eras:

- Architectural styles:
 - traditional
 - modern
 - Elizabethan
 - Georgian
 - Victorian
 - Edwardian
- Five orders of architecture:
 - Tuscan
 - Doric
 - Ionic
 - Corinthian
 - Composite.

Types of construction methods:

- Residential and commercial
- Frame structures (timber frame, steel); solid structures (brick, block, concrete, solid, cavity, structural insulated panels [sips] and sheets)

Insulation considerations:

- Types of insulation,
- Traditional and modern,
- Internal,
- External,
- Methods of installation (direct bond, mechanical fix, ewi, cavity insulation, roof insulation, floor insulation)
- Increasing thermal performance and maintaining insulation envelope.
- Building performance, ie old, new buildings; restoration to meet building regulations;

Level of requirements:

- Thermal
- Acoustic
- Fire proofing
- Air ventilation
- Circulation
- Waterproofing

Facilities:

- Position ie gas, water, electricity, telecommunications, drainage

CK5: Materials: Types of traditional and modern materials; moving, handling and storage of them; their uses and characteristics, eg types, condition, strength and compatibility. Cost awareness and environmental considerations/waste awareness, eg surface water management and recycling. Chemical damp proofing installation, moisture effects and damage.

Types of materials:

- Loose
- Bagged
- Liquids
- Rolled
- Sheet
- Lengths
- Components;
 - pre-blended
 - pre-mixed
 - additives
 - beads
 - plasterboard
 - laths
 - reinforcements
 - fixing components

Moving and handling:

- Mechanical aids
- Kinetic
- Protect from damage (during transport)
- Environment

Storage:

- Security
- Protection from damage (during storage)
- Protection from elements
- Pre-planning
- Minimising waste (stock rotation, first in first out (fifo))
- Environmental protection (contamination prevention)

Environmental considerations and waste awareness:

- Sustainable materials
- Segregated waste
- Recycled aggregate
- Renewable energy sources
- Grey water systems
- Water harvesting
- Sustainable urban drainage systems (suds)

Chemical damp proofing installation:

- Method of controlling effects of damp eg: tanking slurry, chemical injection, membranes
- Types of material eg adhesives (powder and chemical), salt neutralisers, waterproofer

Moisture effects:

- Type of moisture: rising damp, penetrating damp, water egress

Damage:

- Wet rot
- Dry rot
- Efflorescence
- Mould growth
- Cold spots
- Deterioration of surfaces
- Increased level of condensation

CK6: Considerations before completing plastering work: u-values, insulation, impact, fire proofing around steel work.

Considerations:

- Old, new building
- Restoration to meet building regulation

CK7: Dry lining: materials, methods, and finishes.

Materials:

- Performance plasterboards
- Fixings
- Bonding adhesives
- Silicones
- Intermittent sealers
- Foam fixing
- Metal studs
- Tracks
- Liners
- Components
- Reinforcements
- Scrim
- Paper tape
- External reinforced tape
- Beads

Methods:

- Direct bond
- Mechanical
- Machine jointing
- Hand-taping
- Skimming

Tape and joint:

- Prepare, apply, sand, seal (hand, mechanical)

Plaster finish:

- Prepare, mix, apply, finish

Finishes:

- Finishing plaster
- Fillers
- Compounds
- Ready mixed
- Pre-mixed
- Pre-blended
- Sandpaper
- Primers/ sealers

Solid (multiple choice questions)

K8: Application methods for different types of mortars and finishes, including heritage and how to re-instate plastering systems post chemical damp-proof injection.

Application methods:

- Hand
- Machine

One, two and three coat plastering systems:

- Traditional/ modern lime-based mortar
- Cement based mortar
- Gypsum based backing and finishing plaster
- Traditional lime finish

Backgrounds:

- Masonry (brick, block, stone, concrete);
- Plasterboard,
- Composite

Internal surfaces:

- Float and set

prepare, set out, mix, apply and finish

Solid plastering systems:

- Traditional/modern methods and materials (additives, bonding agents)

K9: Application methods for different types of render systems including colour rendering; run in situ moulding work in sand and cement.

Application methods:

- Hand
- Machine

One, two and three coat rendering systems:

- Traditional
- Modern

Backgrounds:

- Stone
- Brick
- Block
- Concrete
- Cement board
- EML (expanded metal lathing)
- EWl (external wall insulation)

Render systems including EWl:

- Plain,
- Textured,
- Traditional,
- Colour through render,
- Thin coat

prepare, set out, mix, apply and finish

Run in situ:

- Plinths
- Banding
- Cornices
- Weathering
- Backgrounds - stone, brick, block, concrete, cement board, eml (expanded metal lathing),

Run in situ process:

- Materials (traditional, modern, aggregate, binders, additives)

K10: How to fix ancillary works including beads, trims and how to use additives to form a mechanical key.

Types of beads:

- Internal and external

Fix beads:

- Plaster dabs
- Direct nailing
- Staples
- Mechanical fix

Backgrounds:

- Openings
- Returns
- Movement areas
- Forming panels
- Forming drips
- Shadow detail
- Window banding
- Decorative features,

Forming mechanical keys:

- Scabbling
- Key comb scratch
- Hacking
- Grinding
- Bonding agents
- Bonding slurry
- Bonding grit

Backgrounds:

- Plasterboard
- Masonry
- Composite
- Stone
- Brick
- Block
- Concrete
- Cement board
- EML (expanded metal lathing),

Fibrous (multiple choice questions)

K11: How to produce reverse moulds such as enriched cornices, arches, columns, pilasters, corbels ceiling centre and beam case.

Types of mouldings:

- Decorative
- Plain
- Straight
- Curved
- Elliptical
- Diminished
- Spherical
- Vaulted.

Techniques:

- Running
- Spinning
- Turning
- Pouring
- Forming.

Methods:

- One piece
- Loose piece
- Case moulds
- Insertion moulds
- Flood moulds.

Materials:

- Various grades of casting plaster
- Fibre glassing materials
- Silicones
- Reinforcements
- Laths
- Sealers
- Release agents
- Clay
- Plaster additives.

Considerations:

- Size of the moulding
- Balancing of enrichments
- Quantity of casts
- Size of casts
- Face finish of cast
- Under cut sections
- Size of radius.

Possible defects:

- Chattering
- Gathering on.

K12: How to cast from reverse moulds in fibrous plaster, GRG (glass fibre reinforced gypsum) and GRC (glass fibre reinforced concrete).

Methods:

- Run casts
- Firstings and secondings
- One gauge
- Dry packing and laminating.

Materials:

- Various grades of casting plaster
- Types of reinforcements
- Laths
- Jesmonite
- Grg
- Fibrecem
- Sealers
- Release agents
- Plastering additives.

Considerations:

- Setting times of plaster
- Tensile face strength of cast
- Weight of cast
- Position of laths and brackets
- Method of fixing
- Method of jointing.

Possible Cast defects:

- Shelling
- Cockling
- Canvas grinning
- Air bubbles
- Uneven strike offs.

K13: How to fix a range of cast mouldings such as enriched cornice, arches, columns, pilasters, corbels, ceiling centre and beam casing.

Setting out:

- Projection
- Depth
- Intrados
- Extradados
- Springing lines/chord lines
- Datum points.

Types of backgrounds:

- Painted plastering
- Unpainted plastering
- Primary suspended mf grids
- Steel columns
- Masonry backgrounds.

Methods of Installation:

- Mechanically fixed
- Wire and wad
- Bedded and wading.

Types of mitres/joints:

- Internal
- External
- Straight
- Curved
- Lapped
- Rebated.

Possible fixing and finishing defects:

- Moulding members out of line
- Moulding members not plumb
- Mitres not sharp
- Mitres out of line
- Returns out of square
- Walls and ceiling not clean.

K14: How to restore existing mouldings including how to take squeezes of different types of mouldings using plaster, clay and silicone rubber to reproduce mouldings to match the original.**Considerations:**

- Type of building
- Type of original material
- Suitable working sections
- Pattern repeats
- Undercut sections
- Size of moulding
- Quantity required

Methods of taking a squeeze:

- Rubber squeeze
- Plaster squeeze
- Removal of section
- Cut through
- Pin gauge.

Methods of restoring mouldings:

- Pre-cast mouldings
- Running mouldings in-situ
- Hand modelling.

Materials:

- Hydraulic limes
- Non-hydraulic limes
- Casting plasters
- Laths
- Riven laths
- Reinforcements
- Release agents
- Silicones
- Additives.

In-situ run work:

- Types of running moulds
- Processes for running in-situ.

Core Behaviours

B1: Positive and mature attitude:

- Conscientious, punctual, enthusiastic, reliable and professional including appearance.
- Take responsibility for personal judgements and actions.
- Be aware of the limits of personal competence.
- Show drive and energy in fulfilling requirements of role, including deadlines and being proactive not reactive.
- Show honesty and integrity by developing the trust of customers and colleagues and undertaking responsibilities in an ethical and empathetic manner.
- Demonstrate awareness of equality and diversity in all aspects of role.

B2: Quality focused:

- Be reliable, productive, efficient and quality focussed in work and in personal standards to current industrial standards.
- Awareness and consideration of other trades, eg plaster walls in a way that allows for pipes and electrical wiring.
- Keep work area clean and tidy. (avoiding damage to customer property; working in a safe manner)
- Provide protection to adjacent finishes to avoid possible damage.
- Provide good customer service. (respecting customer property; acting in a polite and respectful manner)
- Give consideration to the appropriate use of resources and personal actions in regards to environmental, social and economic factors and their impacts.
 - Environmental- control measures to protect health, environment and wellbeing of those on-site and in the work area (type of equipment/machinery used (petrol fumes, diesel fumes, noise pollution, general dust)
 - Social- protection of those potentially affected by plasterer's work; considerations of other trades, customers, neighbours and general public, working in a respectful way to minimise disturbance
 - Economic- minimising waste and damage to materials and property

B3: Effective communication:

- Oral (including listening), written, body language and presentation.
 - Oral: Adapting communication depending on the person being talked to
 - Written: Materials list, equipment list, time sheet
 - Body language: Respectful manner
 - Presentation: Appropriate clothing/uniform
- Collaborate with others, eg colleagues, clients, architects, contract managers, other trades, clients, suppliers and the public regardless of differences in race, gender, sexual orientation, or other characteristics. (adjusting communication appropriately, respectful; knowing the chain of command).

B4: Self-motivated learner:

- Identify personal development needs and take action to meet those needs (apply information provided by toolbox talks, site inductions).
- Keep up-to-date with best practice and new technology (maintaining on-site awareness, asking questions, developing curiosity, manufacturers' information, trade magazines, case studies).
- Show initiative to independently complete work and solve problems by seeking out critical information (checking drawings are up-to-date, specifications, schedules, manufacturer's instructions, work programmes).

Useful contacts

Centres

Exam entries, Certificates,
Registrations/enrolment, Invoices, Missing
or late exam materials, Nominal roll reports,
Results

E: centresupport@cityandguilds.com

Learners

General qualification information

E: learnersupport@cityandguilds.com

Other contacts

For other contacts visit the Contact Us page
of our website

W: www.cityandguilds.com/help/contact-us

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