

Our Apprenticeship Programme

Trowel Trades

Associated qualifications	City & Guilds Level 2 Diploma in Bricklaying City & Guilds Level 3 Diploma in Bricklaying
Duration	4 years

Off-the-job training, assessment and apprentice reviews:

This details what training the apprentice will receive, principally through qualification unit delivery with the learner outcomes attached. It also includes estimated assessment dates and built-in ongoing reviews.

On-the-job support for learning, competency and behaviour:

This summarises the broad timetable of tasks that can take place in the workplace, where possible, to support the off-the-job training. It should focus on duties that include:

- Competencies - activities and practical tasks gained through on-the-job exercises with opportunities to practise
- Behaviours - actions, attitudes and beliefs embedded through the employer's organisational code of conduct

Key:

Training to be delivered

Assessments

Estimated Start date Month	Off-the-job training, assessment and apprentice reviews	On-the-job support for learning, competency and behaviour
Year 1	City & Guilds Level 2 Diploma in Bricklaying	
	<p>Health, safety and welfare in construction (Unit 201/601) <i>Outcomes:</i> Knowledge:</p> <ul style="list-style-type: none"> - of the health and safety regulations, roles and responsibilities - of accident and emergency reporting procedures and documentation - of how to identify hazards in the workplace - about health and welfare in the workplace - of how to handle materials and equipment safely - about access equipment and working at heights - of how to work with electrical equipment in the workplace - of how to use Personal Protective Equipment (PPE) - of the cause of fire and fire emergency procedures 	<p>This is a theory only based unit. Where possible, support should be given to the apprentice to understand the following health and safety requirements within the workplace to aid their written assignments:</p> <ul style="list-style-type: none"> - Health and safety legislation - Accident reporting - Risk assessments - Site traffic procedures - Safety signs - Manual handling - Personal Protective Equipment - Fire safety <p>Please explain to the apprentice what health and safety procedures look like in their workplace.</p>
	Asbestos awareness course	Delivered by the college to support Unit 201/601
<p>Health, safety and welfare in construction (Unit 201/601) Multiple choice test</p>		
	<p>Principles of building construction, information and communication (Unit 202/602) <i>Outcomes:</i> Understand and know about:</p> <ul style="list-style-type: none"> - how to select types of building information - environmental considerations in relation to construction - the construction of foundations - construction of internal and external walls - construction of floors - construction of roofs - how to communicate in the workplace 	<p>This is a theory only based unit.</p> <p>It is important that the apprentice is involved in using working drawings in the workplace.</p> <p>Where possible, support should be given to the apprentice to understand the following principles of construction, information and communication within the workplace to aid their written assignments:</p> <ul style="list-style-type: none"> - working drawings, symbols and hatchings - building construction information - scale on working drawings - benchmarks (on and off site)

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		<ul style="list-style-type: none"> - insulation, water efficiency, energy efficiency, eco-friendly materials, waste management - construction of foundations, considering factors such as materials and mix ratios - setting out foundations - foundation excavation considerations - transferring datum's - pile foundation calculations - walling components, DPC, gable calculations (hypotenuse), additives for mortar and concrete, bonding of brickwork, load bearing, volume of liquids calculations - floor components (solid and hollow, timber and masonry) - floor board calculations - basic roof construction knowledge and its association with trowel trades - communication methods/types in construction - requisition orders - communication with work colleagues
	30 page construction calculations pack	Delivered by the college to support unit 202/602
Principles of building construction, information and communication (Unit 202/602) Multiple choice test		
	Building solid walling, isolated and attached piers (Unit 204) <i>Outcomes:</i> Understand and be able to: <ul style="list-style-type: none"> - select resources for practical tasks - erect solid walling to required specification - erect isolated and attached piers to required specification College theory consists of assignments for the following: <ul style="list-style-type: none"> - planning and selecting resources, working drawing types, orthographic and isometric projection drawings, wall component positioning on site - transferring walling positions to foundations, damp proof barriers and weather proof finishes to walling, differences between pointing and jointing - establishing face brickwork bonds in walling and piers 	These following initial tasks are ongoing whilst the apprentice is working on the theory units 201 and 202 and the theory attached to this unit. Please involve the apprentice in any construction work that is similar to those listed below: <ul style="list-style-type: none"> - setting up the work station - building a brick pyramid freehand and with a level - stretcher bond with profiles - racked back stop end using a level - external corner brick Quoin - block wall with render finish with profiles (render is a college add on) - block wall with attached piers - external block corner (quoin) with stop end - stone effect render finish (college add on) - 2 brick hollow pier

Estimated Start date Month	Off-the-job training, assessment and apprentice reviews	On-the-job support for learning, competency and behaviour
	<ul style="list-style-type: none"> - decorative features in walling and special brick shape identification - the use of vertical and horizontal reinforcement in walling - safe working procedures and safety standards, protecting work from damage due to weather etc 	<ul style="list-style-type: none"> - 2 brick solid pier with decorative feature and concrete capping - English and Flemish one brick thick wall with brick on edge capping <p>It is vitally important that the apprentice is working with masonry tools by this stage. Preferably with a mentor.</p>
	<p>Building solid walling, isolated and attached piers (Unit 204) Multiple choice test Practical assignment</p>	
Year 2	City & Guilds Level 2 Diploma in Bricklaying	
	<p>Interpreting working drawings to set out masonry structures (Unit 205) <i>Outcomes:</i> Understand and be able to:</p> <ul style="list-style-type: none"> - interpret information and establish setting-out requirements - prepare construction sites for setting-out activities - select resources for setting-out work - set out regular-shaped masonry structures on level ground <p>College theory consists of assignments for the following:</p> <ul style="list-style-type: none"> - types of drawing used in setting out, scales used in setting out, methods of reporting inaccuracies - requirements for site clearance activities, safety aspects of site clearance before setting out commences, locating and isolating existing services, safety aspects of locating and isolating existing services - walk over surveys to assess site conditions, walk over survey report writing, calculations used in site clearance activities, environmental considerations when clearing a site - resources required for site clearance activities (including site levelling from datum points), perimeter and area calculations 	<p>This is a theory only based unit.</p> <p>In the workshop the apprentices are working on practice tasks taking them toward the cavity walling unit.</p> <p>Involve the apprentice in:</p> <ul style="list-style-type: none"> - any setting out procedures in the workplace - using a site level in the workplace - using working drawings to set out or find levels in the workplace
	<p>Interpreting working drawings to set out masonry structures (Unit 205) Multiple choice test Practical assignment</p>	

Estimated Start date Month	Off-the-job training, assessment and apprentice reviews	On-the-job support for learning, competency and behaviour
	<p>Construct cavity walling forming masonry structures (Unit 206) <i>Outcomes:</i> Understand and be able to:</p> <ul style="list-style-type: none"> - plan and select resources for practical tasks - erect cavity walling to required specification - form openings in cavity walling <p>College theory consists of assignments for the following:</p> <ul style="list-style-type: none"> - Identify different drawing types, information sources and scales used in cavity walling, manual handling when building cavity walls, calculations used for finding quantities of materials (brick/block/stone/sand/cement) ratio for mixing and calculating dry material quantities, bulking of materials - cutting walling components and associated safety, working invert levels from a datum point (manhole calculation), insulation requirements for cavity walling (on and off island), wall tie types, timber frame ties, identifying the correct DPC for cavity walling (new and existing), fitting various floor types into cavity walling, weak points for damp penetration in cavity walling, identifying jamb types old and new plus the building regulations for each together with the reasons why we use them, wall ties with regard to current building regulations - face bonds used in cavity walling, what are broken bond & reverse bond when are they used, setting out brickwork to work with windows and door positions, movement joints & ties - advantages and disadvantages of jointing and pointing, brick classification F rating and S rating, brick density and usage limitations of each type, mortar gauges for each class of brick, joint finishes for different environments - protecting work places from damage, protecting new masonry from weather damage (rain/frost/wind)(brick/block/stone), important checks whilst building cavity walling & quality standards required, windows and doors in cavity walling, built in joist hangers, wall plates 	<p>The apprentice will be working on the following tasks for this unit, Please involve the apprentice in any construction work that is similar to those listed below:</p> <ul style="list-style-type: none"> - setting out and building a cavity wall up to dpc - cavity wall with built in meter box - cavity wall with window opening - internal cavity wall corner with rusticated quoins - gable end with dental course detail <p>The college will add on six weeks of stone masonry training at Ronez quarry followed by a practical task of building a stone faced retaining wall in the workshop at college</p> <p>Involve the apprentice in:</p> <ul style="list-style-type: none"> - any cavity wall construction in the workplace - any construction involving DPC or DPM - bonding arrangements and setting bond for brick/block/stone - lintel work and associated DPC tray/weep hole arrangements - any construction involving movement joints - reading specifications on a live project to find specific requirements e.g. insulation - building control site visits

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	<ul style="list-style-type: none"> - forming openings in cavity walling, methods of closing reveals, DPC positioning and joining to DPM, lintel and cill trays, closing a cavity wall at the eaves, lateral restraint straps - concrete lintel use, steel lintel use, proprietary arch centres, arch terminology, arch types and building techniques - proprietary/brick/concrete/stone/tile cills, methods of construction, damp proofing, Site security 	
	<p>Construct cavity walling forming masonry structures (Unit 206) Multiple choice test Practical assignment</p>	
Year 3	City & Guilds Level 3 Diploma in Bricklaying	
	<p>Principles of organising, planning and pricing construction work (Unit 301/701) <i>Outcomes:</i> Understand:</p> <ul style="list-style-type: none"> - different types of drawn information in construction - energy efficiency and sustainable materials for construction - how to estimate quantities and price work for construction - how to plan work activities for construction - how to communicate effectively in the workplace <p>College theory consists of assignments for the following:</p> <ul style="list-style-type: none"> - understanding different types of drawn information, CAD (advantages/disadvantages) - the process and purpose of producing a schedule from a drawing - orthographic and isometric drawings re-visited from level two (in more depth) - thermal insulation identification, understanding thermal transfer, U value, R value, insulation construction methods & associated thermal response times, thin joint method, timber frame method, heat loss through other construction materials (wall ties/lintels etc) identify typical heat loss/gain areas of a dwelling 	<p>This is a theory only based unit.</p> <p>In the workshop the apprentices are working on practice tasks to build up their skill levels, these will include:</p> <ul style="list-style-type: none"> - small serpentine wall - decorative walling corbelling with dog toothing course - one brick thick retaining wall with tumbled in buttress - English garden wall bond wall with segmental axed arch in face brickwork - returned convex arch with a two brick radius <p>Involve the apprentice in the construction of any curved masonry work where possible. Setting out as well as the construction of the curved masonry work (circular, on-plan curves and arch work)</p>

Estimated Start date Month	Off-the-job training, assessment and apprentice reviews	On-the-job support for learning, competency and behaviour
	<ul style="list-style-type: none"> - making buildings energy efficient, solar, wind, ground source, air source, biomass, wood carbon cycle, energy performance certificates - environmentally friendly building materials, (local/managed timber, FSC/ lime/sheep's wool/straw/rice husk/recycled materials, wood, metal, masonry/concrete, finite and renewable resources, off site manufacture of dwellings - estimating quantities and pricing, estimating, materials list from a schedule, preferred suppliers, bill of quantities, tendering, quoting and estimating (difference), calculating waste percentages, preparing a quote - planning work activities, planning methods (Gantt charts etc), critical path, purchasing/hiring plant and equipment - effective communication in the workplace, the purpose of site documentation, meeting agendas, tool box talks, site inductions, site survey before handover and defects list, identifying issues 	
<p>Principles of organising, planning and pricing construction work (Unit 301/701) Multiple choice test</p>		
	<p>Repair and maintain masonry structures (Unit 302) <i>Outcomes:</i> Understand:</p> <ul style="list-style-type: none"> - the materials used to repair masonry structures - methods for repairing and renewing masonry structures <p>Be able to:</p> <ul style="list-style-type: none"> - remove and renew masonry materials - maintain a safe working environment <p>College theory consists of assignments for the following:</p> <ul style="list-style-type: none"> - materials used to repair masonry structures, the application of and defects associated with those materials, minimising hazards associated with repair and maintenance of masonry structures, relationships between building materials, calculating quantities of materials used for repair and maintenance 	<p>The apprentice will be working on a brick and block wall upon which repair tasks are undertaken. Please involve the apprentice in any construction work that is similar to those listed below: Involve the apprentice in any remedial masonry works, such as:</p> <ul style="list-style-type: none"> - masonry repairs (brick/block/stone) - crack repair – including study of structural engineers drawings/requirements for repair works -pinning works. New openings involving acro props and needles

Estimated Start date Month	Off-the-job training, assessment and apprentice reviews	On-the-job support for learning, competency and behaviour
	<ul style="list-style-type: none"> - methods used for repairing masonry structures, safety checks whilst repairing structures, temporary supports and bracings, forming new openings in walling, removing existing masonry and other components from walling, hand and power tools usage during repair and maintenance, preparation of materials mortars when fitting replacement materials and components, replacement doors and windows, replacing existing wall ties, protection of completed repair work - identification of actual defective masonry, causes of defects, removal and replacement of defective face work, environmental issues and relevant health and safety surrounding repair and maintenance - importance of site cleanliness during repair and maintenance operations, tool/equipment storage and checks after use, safe disposal of waste and relevant environmental legislation 	
	<p>Repair and maintain masonry structures (Unit 302) Multiple choice test Practical assignment</p>	
	<p>Constructing radial and battered brickwork (Unit 303) <i>Outcomes:</i> Understand and be able to:</p> <ul style="list-style-type: none"> - set out and build arches and surrounding brickwork - set out and build brickwork curved on plan - set out and build concave and convex brickwork - set out and build battered brickwork <p>College theory consists of assignments for the following:</p> <ul style="list-style-type: none"> - arches and their construction, types of arch and arch terminology, components used in arch construction, providing temporary support for an arch, proprietary arch formers and lintels, DPC for arches, setting out of various arch types and arch geometry, methods of constructing an arch, soldier and flat arches, complex arches (gothic and Tudor) - detailed setting out of an arch and cutting voussoirs, tool requirements, traversing an arch, marking and cutting masonry used for building an arch 	<p>The apprentice will be working on the following practical tasks for their practical exam. Please involve the apprentice in any construction work that is similar to those listed below:</p> <ul style="list-style-type: none"> - segmental axed arch with battered buttress - curved brickwork on plan (serpentine wall) <p>Involve the apprentice in any retaining wall construction including study of working/engineers drawings showing requirements for:</p> <ul style="list-style-type: none"> - reinforcement - hydrostatic pressure relief and/or drainage - battered masonry work

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	<ul style="list-style-type: none"> - setting out and building masonry curved on plan, construction methods used, serpentine walls, setting out a serpentine wall to a given radius - setting out and building concave and convex masonry, methods used in construction of concave and convex masonry, special masonry units, trammels, intrados and extrados templates - setting out and building battered masonry, construction methods used, issues due to hydrostatic pressure, preventing hydrostatic pressure, materials used in battered retaining walls 	
	Constructing radial and battered brickwork (Unit 303) Multiple choice test Practical assignment	
Year 4	City & Guilds Level 3 Diploma in Bricklaying	
	<p>Carrying out decorative and reinforced brickwork (304) <i>Outcomes:</i> Understand and be able to:</p> <ul style="list-style-type: none"> - set out and build decorative brickwork features - set out and build obtuse and acute angle quoins - set out and build reinforced brickwork <p>College theory consists of assignments for the following:</p> <ul style="list-style-type: none"> - setting out and building decorative features in brickwork, special brick shapes, cants, oversailing, panels, ramps, plinth courses, tumbling in - setting out and building acute and obtuse angled quoins, processes required, construction methods, face bonding arrangements for different wall thicknesses using English bond - setting out and building reinforced brickwork, methods used, horizontal and vertical reinforcement types, Quetta bond, bonding arrangements for one and a half brick thick walls (English, Flemish, Quetta and garden wall bonds) 	<p>The apprentice will be working on the following practical tasks for their practical exam. Please involve the apprentice in any construction work that is similar to those listed below:</p> <ul style="list-style-type: none"> - decorative and reinforced brickwork - obtuse quoin - any decorative masonry work - any angled masonry work (acute or obtuse) (setting out and constructing) - any reinforced masonry work
	Carrying out decorative and reinforced brickwork (304) Multiple choice test Practical assignment	

Estimated Start date Month	Off-the-job training, assessment and apprentice reviews	On-the-job support for learning, competency and behaviour
	<p>Constructing fireplaces and chimneys (Unit 305) <i>Outcomes:</i> Understand and be able to:</p> <ul style="list-style-type: none"> - select resources for fireplace and chimney construction - set out and build fireplaces and chimneys <p>College theory consists of assignments for the following:</p> <ul style="list-style-type: none"> - selecting the correct resources for chimney construction, information sources for chimneys and fireplaces (building regs document J, British standards specifications, HSE guidelines), the importance of manufacturer’s instructions, characteristics of fireplace and chimney materials and the associated safety checks during construction, flue classifications, throating lintels, flaunching, heat expansion, flashing systems, mid feathers/withes, linear calculations for flue liners - types of fireplace/chimney/flue, resources needed for each, risk assessing, method statements, safe systems of work, identifying hazards associated with chimney/fireplace/ flue construction, unsafe/dangerous construction repercussions for the client, suitability of resources (non-standard) - safety aspects around dimensional setting out of chimneys and fireplaces, building regulations concerned, safely cutting chimney and fireplace resources, ventilation provision for fireplaces (methods of), other provisions (ducting for gas pies/meter boxes etc), damp proofing around fireplaces and chimneys 	<p>The apprentice will be working on the following practical tasks for their practical exam. Please involve the apprentice in any construction work that is similar to those listed below:</p> <ul style="list-style-type: none"> - block wall with gas fire opening and gas flue - diagonal double chimney stack with flue liners - any chimney construction works - any chimney breast construction works - any associated building inspector site visits involving the above - reading specifications for the above
	<p>Constructing fireplaces and chimneys (Unit 305) Multiple choice test Practical assignment</p>	
End	Successful completion of the attached qualifications	