

<b>Title:</b>	<b>Practical Construction Skills</b>
<b>Aim:</b>	This unit will introduce the learner to the tools, equipment and materials used in basic construction tasks and provide the opportunity to demonstrate the required skills to complete practical tasks.
<b>Level:</b>	Entry Level 3
<b>Credit Value:</b>	5
<b>GLH</b>	50
<b>Unique Reference Number:</b>	K/618/0653
<b>Assessment</b>	This unit is internally assessed through the completion of at least two practical tasks as detailed in Learning Outcome 3 and internally and externally quality assured. An NOCN assessment booklet has been produced and should be used to evidence all learning outcomes.
<b>Learning outcomes</b> <i>The learner will:</i>	
1. Know about the tools, equipment and materials used to carry out basic construction tasks for their chosen trades.	
<p><b>Delivery content:</b> The purpose of this learning outcome is to introduce the learner to the different <b>tools, equipment</b> and <b>materials</b> they will use to carry out basic construction tasks.</p> <p>The learner must know:</p> <ul style="list-style-type: none"> <li>• the <b>Personal Protective Equipment (PPE)</b> and <b>Collective Protective Measures (CPM)</b> required to be able to carry out tasks safely.</li> <li>• the <b>resources</b> utilised to ensure the work area is protected from damage.</li> <li>• the different tasks that they will work on during their course and the <b>tools, equipment</b> and <b>materials</b> they will be using to complete each. This must cover details relevant to the health and safety requirements.</li> </ul>	
2. Be able to prepare to carry out basic construction tasks for their chosen trades.	
<p><b>Delivery content:</b> The purpose of this learning outcome is to enable the learner to gain understanding of, and demonstrate, how to prepare to carry out work for their chosen trades.</p> <p>The learner must:</p> <ul style="list-style-type: none"> <li>• identify the types and quantities of <b>the tools, equipment</b> and <b>materials</b> required to complete given tasks to specification.</li> <li>• know how to set up a work area for the different tasks including setting out tools and materials in a logical manner and ensuring that the area is safe to carry out the work.</li> <li>• be able to demonstrate how to prepare materials to specification.</li> <li>• prepare any surfaces to the appropriate standard if required.</li> </ul>	
3. Be able to carry out basic construction tasks.	
<p><b>Delivery content:</b> The purpose of this learning outcome is to allow learners to demonstrate their skills in undertaking construction tasks related to their chosen trades.</p>	

Learners must be given the opportunity to complete each bullet pointed task for **two of the trade areas** listed below.

The learner must:

**Carpentry:**

- measure and cut timber and timber-based products to given dimensions.
- form basic joints using hand tools.
- join timber and/or timber-based products.
- produce basic products, such as a frame or box, using basic joints and fixings.

**Bricklaying**

- set out wall and return (minimum 1m each).
- lay bricks dry at least two courses high.
- know how to prepare mortar.
- lay bricks using a stretcher bond at least four courses high.
- finish joints.
- check for plumb and level.

**Painting**

- carry out surface preparation including cleaning, filling and smoothing surfaces as required.
- undercoat surfaces.
- apply coats as required to timber and one other surface.
- one surface must allow learner to cover a minimum area of 1.5m x 1.5m.
- cut in to at least one floor/ceiling and one internal corner.
- learner must use at least one undercoat product and two paint types.

**Tiling**

- prepare surfaces to receive tile adhesive.
- set out surface.
- lay tiles to specification.
- learners must be able to cut tiles and fix to a minimum area of 0.75m x 0.75m.
- prepare grout.
- complete grouting to specification.

**Plastering**

- prepare surfaces to receive plaster.
- perform suction test.
- apply scrim as necessary.
- plaster a minimum area of 1m x 1m.
- complete plastering to specification.

**Plumbing**

- Measure and cut plastic / copper pipes to match specification (10mm tolerance)
- Assemble frames (minimum size 300mm by 250mm) using compression / push fit
- Assemble frames using solder end feed
- Attach frames to a board.
- Test frame to ensure no leaks.

4. Be able to clean and store tools, equipment and the work area.

**Delivery content:**

The purpose of this learning outcome is to allow learners to demonstrate that they are able to complete given tasks.

The learner must:

- clean and check all tools and equipment and store as directed.
- store excess materials.
- clean the work area, ensuring all health and safety requirements are adhered to and all waste disposed of correctly.

**Scope of Training/Assessment**

**What would you expect the learner to be able to do or not to do?**

The expectation is that the learner will be able to complete activities with little, or no, support from the trainer. It is not expected that the work produced will be at site standard but must be carried out safely and the completed work left in a safe condition. **At least two full tasks** must be completed to the required standard.

The following expands on terms highlighted through the unit, use/coverage will be dependant of the areas covered. It is expected that tutors use their professional experience to expand on the areas covered, making them relevant to the local area and employment opportunities and explain terms in using terminology understandable to their learners.

**Assessment:**

The Assessment Workbook is available from NOCN.

	<b>Requirements</b>		
<b>Tools</b>	<p><b>Bricklaying</b></p> <ul style="list-style-type: none"> <li>• <b>Brick trowel</b></li> <li>• Pointing trowel</li> <li>• <b>Tape measure</b></li> <li>• <b>Spirit level</b></li> <li>• <b>Club/Lump hammer</b></li> <li>• <b>Bolster</b></li> <li>• <b>Spot board</b></li> <li>• Jointing tools</li> <li>• Scutch / brick hammer</li> </ul> <p><b>Painting and Decorating</b></p> <ul style="list-style-type: none"> <li>• <b>Paint brushes (various)</b></li> <li>• <b>Roller and tray</b></li> <li>• <b>Wallpaper scrapers</b></li> <li>• <b>Paint comb</b></li> </ul>	<p><b>Plastering</b></p> <ul style="list-style-type: none"> <li>• <b>Tape measure</b></li> <li>• <b>Spirit level</b></li> <li>• <b>Scrapper</b></li> <li>• <b>Finishing trowel</b></li> <li>• <b>Hawk</b></li> <li>• Straight / feather edge</li> <li>• Snips</li> <li>• Bucket scoop / gauging trowel.</li> </ul> <p><b>Tiling</b></p> <ul style="list-style-type: none"> <li>• <b>Manual tile cutter</b></li> <li>• <b>Tape measure</b></li> <li>• Electric tile cutter</li> <li>• Electric mixer</li> <li>• Rule/ruler</li> <li>• <b>Tile trowel</b></li> <li>• <b>Grout float</b></li> </ul>	<p><b>Carpentry and Joinery</b></p> <ul style="list-style-type: none"> <li>• <b>Saw</b></li> <li>• <b>Standard hand</b></li> <li>• <b>Tenon</b></li> <li>• Hack</li> <li>• Rip</li> <li>• Keyhole / Coping</li> <li>• <b>Tape measure</b></li> <li>• <b>Tri-square</b></li> <li>• <b>Marking gauge (combination)</b></li> <li>• <b>Mallet</b></li> <li>• <b>Clamps</b></li> <li>• <b>Carpenter's / Combination square</b></li> <li>• <b>Wood chisels</b></li> <li>• <b>Spirit level</b></li> </ul>

	<ul style="list-style-type: none"> <li>• Filler knife</li> </ul> <p><b>Plumbing</b></p> <ul style="list-style-type: none"> <li>• <b>Copper cutter</b></li> <li>• <b>Adjustable spanner</b></li> <li>• <b>Screwdrivers</b></li> <li>• <b>15mm pipe slice</b></li> <li>• Pipe bender and guide</li> <li>• Pipe vice</li> <li>• Plastic pipe cutter</li> <li>• Blow torch</li> <li>• <b>Test pump</b></li> <li>• <b>File</b></li> <li>• <b>Hacksaw</b></li> </ul>	<ul style="list-style-type: none"> <li>• Tile levelling system</li> <li>• Scraper</li> <li>• Nippers</li> </ul>	<ul style="list-style-type: none"> <li>• Screwdrivers</li> <li>• Claw hammer</li> <li>• Metal rule</li> <li>• Planes</li> </ul>
<b>Equipment / Resources</b>	Work bench Brush Boarding Self-adhesive film Sponges Ruler	Dustpan and brush Dust sheets Paddle mixer Abrasive paper Waste sacks Square	Masking tape Shovel Screws Buckets Pencil
<b>Materials</b>	<p><b>Bricklaying</b></p> <ul style="list-style-type: none"> <li>• <b>Bricks</b></li> <li>• <b>Sand</b></li> <li>• <b>Cement</b></li> <li>• <b>Water</b></li> <li>• Blocks</li> <li>• Lime</li> <li>• Training mortar</li> <li>• Additive (optional)</li> </ul> <p><b>Plumbing</b></p> <ul style="list-style-type: none"> <li>• <b>Copper and plastic pipes (15mm)</b></li> <li>• <b>Compression fittings (elbow, coupling and tee)</b></li> <li>• Push fit fittings (elbow, coupling and tee)</li> <li>• <b>Solder ring fittings (elbow, coupling and tee)</b></li> </ul>	<p><b>Plastering</b></p> <ul style="list-style-type: none"> <li>• <b>Plaster (various)</b></li> <li>• <b>Angle beads</b></li> <li>• Scrim</li> <li>• <b>Water</b></li> <li>• Additive (optional)</li> </ul> <p><b>Painting and Decorating</b></p> <ul style="list-style-type: none"> <li>• <b>Paint (various)</b></li> <li>• <b>Brush cleaner</b></li> <li>• <b>Sugar soap</b></li> <li>• <b>Filler</b></li> <li>• Solvents</li> </ul>	<p><b>Carpentry and Joinery</b></p> <ul style="list-style-type: none"> <li>• <b>Pencils</b></li> <li>• <b>Adhesives</b></li> <li>• <b>Screws / nails</b></li> <li>• <b>Timber</b></li> <li>• Wood filler</li> </ul> <p><b>Tiling</b></p> <ul style="list-style-type: none"> <li>• <b>Tiles</b></li> <li>• <b>Adhesive mix</b></li> <li>• <b>Grout</b></li> <li>• <b>Water</b></li> <li>• <b>Filler</b></li> <li>• <b>Spacers</b></li> </ul>

	<ul style="list-style-type: none"> <li>• <b>End feed fittings (elbow, coupling and tee)</b></li> <li>• <b>Flux</b></li> <li>• <b>Solder</b></li> <li>• <b>Wire wool</b></li> <li>• <b>Heat mat</b></li> <li>• <b>Pipe clips</b></li> </ul>									
<b>Personal Protective Equipment</b>	<table border="0"> <tr> <td>Goggles</td> <td>Steel toe-cap and</td> <td>Gloves</td> </tr> <tr> <td>Dust masks</td> <td>soled boots</td> <td>Hearing protection</td> </tr> <tr> <td>High visibility clothing</td> <td>Head protection</td> <td></td> </tr> </table>	Goggles	Steel toe-cap and	Gloves	Dust masks	soled boots	Hearing protection	High visibility clothing	Head protection	
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<b>Range of Work</b>	<p>Learners must have the opportunity to take part in at least two of the following practical exercises:</p> <ul style="list-style-type: none"> <li>• Carpentry</li> <li>• Bricklaying</li> <li>• Painting</li> <li>• Tiling</li> <li>• Plastering</li> <li>• Plumbing</li> </ul>									