

Unit 28: Developing Advanced Skills in Repairing Timber Components

Unit code: J/503/5769

QCF Level: 3

Credit value: 15

Guided learning hours: 150

Unit aim

This unit enables learners to understand maintenance methods and procedures when making repairs to timber components. Learners will develop an understanding of the effects on timber of deterioration and fungal attack and will acquire skills in the replacement and ongoing maintenance of windows, doors and other timber components.

Learning outcomes and assessment criteria

In order to pass this unit, the evidence that the learner presents for assessment needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria determine the standard required to achieve the unit.

Learning outcomes	Assessment criteria
1 Understand how to maintain joist coverings	1.1 Identify different joist coverings 1.2 Identify different fixings 1.3 Describe types of damaged joist coverings 1.4 Explain the method for removing roof coverings 1.5 Explain the method for removing floor coverings 1.6 Explain the method for replacing roof coverings 1.7 Explain the method for replacing floor coverings
2 Be able to maintain joist coverings	2.1 Remove damaged floor coverings 2.2 Replace damaged flat roof coverings to specification
3 Understand how to maintain doors, windows and ironmongery	3.1 Explain the effects of different types of fungal attack on timber in

	<p>doors and windows</p> <p>3.2 Explain the effects of different types of insect infestations on timber in doors</p> <p>3.3 Explain how to dispose of timber affected by fungal attack or insect infestation</p> <p>3.4 Identify different types of timber and timber-based products used for doors and windows</p> <p>3.5 Explain methods of replacing ironmongery</p> <p>3.6 Explain methods of applying preservatives to timber in doors and windows</p>
4 Be able to maintain doors, windows and ironmongery	<p>4.1 Replace rotten and damaged timber in windows</p> <p>4.2 Splice new sections to doors</p> <p>4.3 Treat new timber with preservatives</p> <p>4.4 Replace door and window ironmongery</p> <p>4.5 Protect surrounding areas from damage</p>
5 Understand how to maintain structural timbers	<p>5.1 Identify different structural timbers</p> <p>5.2 Identify defects in structural timbers</p> <p>5.3 Explain the effects of different types of fungal attack on structural timbers</p> <p>5.4 Explain the effects of different insect infestations on structural timbers</p> <p>5.5 Explain the importance of correctly disposing of damaged timber</p> <p>5.6 Explain how to splice new timber for structural timbers</p> <p>5.7 Explain which preservatives should be used to treat structural timbers</p>
6 Be able to maintain structural timbers	<p>6.1 Replace damaged and rotten structural timbers</p> <p>6.2 Splice new sections into structural</p>

	<p>timbers to specification</p> <p>6.3 Treat new timber to protect against damage</p> <p>6.4 Protect surrounding areas from damage</p> <p>6.5 Work off access equipment safely</p>
7 Understand how to replace broken glass	<p>7.1 Explain how to remove broken glass safely</p> <p>7.2 Explain how to dispose of broken glass safely</p> <p>7.3 Describe different types of glass</p> <p>7.4 Describe different methods of securing glass into frames</p>
8 Be able to replace broken glass	<p>8.1 Remove broken and cracked glass safely</p> <p>8.2 Remove old putty</p> <p>8.3 Replace timber beads</p> <p>8.4 Measure openings for glass accurately</p> <p>4.5 Fit replacement glass safely</p>
9 Understand how to maintain surface finishes	<p>9.1 Explain different methods for repairing old surfaces</p> <p>9.2 Explain the method for removing old tiles</p> <p>9.2 Explain the method for laying tiles</p>
10 Be able to maintain surface finishes	<p>10.1 Remove old wall tiles</p> <p>10.2 Prepare surface</p> <p>10.3 Lay replacement tiles to area, bonding, aligning and levelling point to match existing tiles</p>

Unit content

1 Understand how to maintain joist coverings

Different joist coverings: floor coverings (tongued-and-grooved boards, tongued-and-grooved chipboard, plywood); flat roof coverings (chipboard, plywood, sheathing plywood, oriented strand board (OSB))

Different fixings: nails; screws; adhesive

Types of damaged joist coverings: floor; roof

2 Be able to maintain joist coverings

Floor coverings: tongued-and-grooved boards; tongued-and-grooved chipboard; plywood

Roof coverings: chipboard; plywood; sheathing plywood; oriented strand board (OSB)

3 Understand how to maintain doors, windows and ironmongery

Effects of different types of fungal attack: wet and dry rot on timber

Effects of different types of insect infestations: common furniture; powder post; death-watch beetles

Types of timber and timber-based products: softwood (redwood, white wood, Douglas fir); hardwood (oak, ash, beech, mahogany); chipboard; plywood; medium density fibreboard (MDF)

Methods of replacing ironmongery: handles; mortice locks; night, door and tubular latches; letter plates; aluminium thresholds; casement stays; fasteners; hinges

Methods of applying preservatives to timber: water based; spirit based; pressure treatment; injection method; paste

4 Be able to maintain doors, windows and ironmongery

Replace rotten and damaged timber: softwood (redwood, white wood, Douglas fir); hardwood (oak, ash, beech, mahogany); chipboard; plywood; medium density fibreboard (MDF)

Splice new sections: using hand tools (saws, hammers, tape measure, spirit level, chisels, mallet, set square, marking gauge, planes, cordless and hammer drills, router)

Treat new timber with preservatives: water based; spirit based; pressure treatment; injection method; paste; primers

Replace door and window ironmongery: handles; mortice locks; night, door and tubular latches; letter plates; aluminium thresholds; casement stays; fasteners; hinges

5 Understand how to maintain structural timbers

Different structural timbers: floor joists; rafters; purlins; ridge board; hip rafters; valley rafters

Defects in structural timbers: woodwork; shakes; splits

Effects of different types of fungal attack: wet and dry rot; effect on timber – softwood (redwood, white wood, Douglas fir), hardwood (oak, ash, beech, mahogany)

Effects of different insect infestations: common furniture; powder post; death-watch beetles; effect on timber – softwood (redwood, white wood, Douglas fir), hardwood (oak, ash, beech, mahogany)

Preservatives to treat structural timbers: water based; spirit based; pressure treatment; injection method and paste

6 Be able to maintain structural timbers

Replace damaged and rotten structural timbers: floor joists; rafters; purlins; ridge board; hip rafters; valley rafters

Splice new sections into structural timbers: floor joists; rafters; purlins; ridge board; hip rafters; valley rafters

Treat new timber: softwood (redwood, white wood, Douglas fir); hardwood (oak, ash, beech, mahogany); preservatives (water based, spirit based, pressure treatment, injection method and paste)

Work off access equipment: tower; putlog; independent scaffolds

7 Understand how to replace broken glass

Types of glass: toughened; laminated; sealed double glazed units

Methods of securing glass into frames: timber beads; putty; silicone; glazing tape

8 Be able to replace broken glass

Types of glass: toughened; laminated; sealed double glazed units

9 Understand how to maintain surface finishes

Methods for repairing old surfaces: stone; brick; lath; block walls; plasterboard for remedial work

10 Be able to maintain surface finishes

Prepare surface: stone; brick; lath; block walls; plasterboard for tiling