

Unit 20:

Developing Building Maintenance Skills

Unit reference number: **L/502/3686**

QCF level: **1**

Credit value: **4**

Guided learning hours: **40**

Unit aim

This unit introduces learners to the hand tools, materials and personal protective equipment (PPE) used in building maintenance. The unit offers learners opportunities to develop the skills needed to maintain buildings.

Unit introduction

Emphasis is placed on the correct selection and safe use of the appropriate tools and equipment required to carry out basic maintenance procedures.

Learners will be given the opportunity to practise basic maintenance processes, and to use these techniques to perform building maintenance tasks.

Although learners will work independently when performing building maintenance tasks, they will also function as effective members of a team by contributing to the maintenance of a clean and tidy workplace, and by working responsibly with others.

When preparing for work in the construction industry it is important that learners are able to seek and respond to guidance from colleagues and tutors during the learning process. This unit will help learners to develop an understanding of the personal qualities that are valued by employers.

It is recommended that learners will have either successfully completed unit 10 *Health and Safety and Welfare in Construction* before starting this unit, or that they will be studying the unit alongside this one, using an integrated delivery and assessment approach.

Essential resources

Learners will require access to low-level access equipment, hand tools and materials of a nature and standard typical of a proper work environment. The maintenance tasks must be undertaken in a safe place of work with adequate space and ventilation, access to washing and first aid facilities, and storage for PPE.

Learners will also require access to a technical library with current textbooks and reference material on construction and the built environment. Internet access will give learners the opportunity to develop skills in e-learning but the tutor will need to manage this carefully.

Learning outcomes, assessment criteria and unit amplification

To pass this unit, the learner 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	Unit amplification
1 Know the hand tools used in building maintenance processes	1.1 List and describe appropriate hand tools to be used in building maintenance processes	<input type="checkbox"/> <i>Hand tools:</i> appropriate to building maintenance processes being undertaken
2 Know the materials used in building maintenance processes	2.1 List and describe appropriate materials to be used in building maintenance processes	<input type="checkbox"/> <i>Materials:</i> appropriate to building maintenance processes being undertaken
3 Know the personal protective equipment (PPE) used in building maintenance processes	3.1 List and describe appropriate PPE to be used in building maintenance processes	<input type="checkbox"/> <i>Personal protective equipment:</i> hard hat; eye protection; safety boots; high-visibility jacket; hand barrier cream <input type="checkbox"/> <i>Building maintenance processes:</i> repair and maintenance tasks associated with, e.g. brickwork, carpentry, joinery, painting, decorating, plumbing and electrical installation

Learning outcomes	Assessment criteria	Unit amplification
4 Be able to apply safe working practices to perform building maintenance tasks	4.1 Select and use hand tools safely to perform building maintenance tasks	<p><input type="checkbox"/> <i>Safe working practices:</i> compliance with advice and guidance given; safe maintenance, use and storage of tools and equipment</p> <p><input type="checkbox"/> <i>Building maintenance tasks:</i> e.g. repair, maintenance or replacement of sticking doors; draughty doors and windows; broken hinges; loose floorboards; gaps in floorboards; damaged skirting boards; rotten timber, e.g. floors, doors and windows; cracks in brickwork; damaged pointing and rendering; broken windows and tiles; failures of paintwork and decorative work; airlocks in pumps and radiators; blockages, e.g. in drains, basins, lavatories and gullies; failed plumbing components, e.g. washers, ball valves, diaphragms; leaking capillary joints and compression joints; failed electrical components, e.g. fuses, switches, sockets, plugs, ceiling roses, thermostats</p>
5 Be able to work responsibly with others	5.1 Maintain a clean and tidy work environment 5.2 Work responsibly in the workshop	<p><input type="checkbox"/> <i>Behaviour:</i> e.g. responsibility, recognition of strengths and skills of self and other team members, cooperation, tidying 'as you go'</p> <p><input type="checkbox"/> <i>Attitudes:</i> e.g. enthusiasm; approachability; communication skills, e.g. listening, questioning, speaking clearly; following instructions</p>
6 Be able to seek and respond to guidance when working as part of a team	6.1 Follow instructions when working with others 6.2 Communicate appropriately with others	

Information for tutors

Delivery

This unit will give learners their first experience of the practical skills associated with the performance of building maintenance tasks, together with any job knowledge required to underpin these practical skills. Learners must be given opportunities to develop their knowledge and practical skills through supervised practical workshop activities group teaching and demonstrations of the tools, equipment, materials, techniques and PPE involved.

Learners and tutors are encouraged to view the unit as a 'taster', in that it gives the learner an opportunity to experience the type of work involved in building maintenance.

All building maintenance tasks are problems to be solved (often in three dimensions) with available tools and materials and within a given timescale. The solutions to the problems are the conventional techniques, methods and procedures that maintenance personnel have developed to address the work they face on a daily basis. Learners will need to discuss the materials, tools, equipment, PPE and techniques to be used with a responsible and competent person and should respond positively to any advice given. They should then select the tools, equipment, materials and PPE appropriate for the task in hand, and use these to perform the specified tasks.

Outline learning plan

The outline learning plan has been included in this unit as guidance.

Topic and suggested assignments/activities
Know the hand tools used in building maintenance processes. Whole-class, tutor-led discussion about hand tools. Individual work on tool identification sheets. Requisitioning tools from tools store.
Know the materials used in building maintenance processes. Site visit. Presentation from qualified working maintenance operative. Trip to builders' merchant.
Know the personal protective equipment (PPE) used in building maintenance processes. Whole-class, tutor-led discussion about PPE, when and where it is necessary and how it works. Individual work on PPE identification sheets. Learners complete requisition sheets to obtain PPE from store. Learners given opportunities to select and wear the full range of PPE used in brickwork.
Practise the processes used to perform building maintenance tasks. Practical demonstration of how to keep individual work areas tidy. The skills associated with building maintenance are best taught by the tutor demonstrating the skills required, followed by the learners practising the skills. The tutor should monitor the learners as they practise their skills and provide guidance, advice, and correction or praise, as appropriate.

Topic and suggested assignments/activities
Be able to apply safe working practices to perform building maintenance tasks. Assessment—two hours for learners to demonstrate knowledge of hand tools, materials and PPE to be used in the practical assessment task. Evidence of selection or de-selection of each required. This can be achieved by completion of in-house requisition forms or similar. Eight hours to demonstrate use of safe working practices to perform building maintenance tasks.
Be able to work responsibly with others. Use of health and safety videos/DVDs to demonstrate the dangers of a dirty and untidy workplace. Discussion of important role played by on-site personnel behaving in a cooperative and responsible manner. Constant encouragement from tutors to ‘tidy as you go’ during practical building maintenance sessions.
Be able to seek and respond to guidance when working as part of a team. Tutors should encourage learners to ask questions about their work. This could be prompted by tutors asking learners to explain what they are doing, and why they are doing it, or to name a tool or an item of PPE as they work. Learners should be aware that their attitude, and the nature of their responses to any advice provided, will comprise part of the evidence required to achieve the unit. This requires no formal allocation of time and should occur during practice and assessment.

Assessment

Achievement of assessment criteria should be evidenced through contextualised, vocationally related practical experiences with tasks specifically designed with the assessment criteria in mind. Many of the assessment criteria will need to be assessed directly by the tutor during practical activities. Where this approach is used, suitable evidence from guided activities would require observation records and/or witness statements.

The use of two assessment instruments is suggested to allow full coverage of the outcomes. The first assessment instrument would comprise 1.1, 2.1 and 3.1 and should focus on the correct selection of the tools, materials and PPE required to complete the building maintenance tasks and the reason why each is appropriate. The second assessment instrument would comprise 4.1, 5.1, 5.2, 6.1 and 6.2 and should focus on the completion of the practical building maintenance tasks.

For 1.1, learners must list and describe commonly used hand tools. This will be evidenced most clearly by completion of appropriate requisition orders.

For 2.1, learners must list and describe the correct materials to be used to complete the building maintenance tasks. This will be evidenced most clearly by completion of appropriate requisition orders.

For 3.1, learners must list and describe the appropriate PPE to be worn or used when completing the building maintenance tasks. This will be evidenced most clearly by completion of appropriate requisition orders.

For 4.1, learners must be able to use the selected tools, materials, components and PPE to perform two different building maintenance tasks to an acceptable standard. It is anticipated that learners will be given a considerable amount of guidance. Photographs, observation records and witness statements could be provided as evidence. Learners need to follow safe working practices.

For 5.1 and 5.2, learners must maintain a clean and tidy workspace and work responsibly with others. Learners should be aware of any hazards associated with

the practical tasks they perform but they need not produce risk assessments or suggest control measures. The evidence could take the form of a witness statement.

For 6.1 and 6.2, learners must demonstrate responsibility by seeking and listening to guidance and clarification from tutors as and when appropriate, and by acting upon the guidance received. They should communicate appropriately with tutors and other learners at all times. The evidence could take the form of a witness statement.

Suggested resources

Books

Osbourn D – *Introduction to Building* (Longman, 1997) ISBN 9780582302006

Reader's Digest – *Complete Do-it-yourself Manual* (RDAL, 2003)

ISBN 9780276428043

Seeley I H – *Building Maintenance* (Palgrave Macmillan, 1987)

ISBN 9780333457016

Websites

www.buildingconservation.com

www.citb.org.uk

www.communities.gov.uk

www.hse.gov.uk

www.iphe.org.uk