

Unit 10: Health and Safety and Welfare in Construction

Unit reference number: D/502/3692

QCF level: 1

Credit value: 4

Guided learning hours: 40

Unit aim

This unit is designed to introduce learners to the health and safety and welfare issues in construction. It aims to help learners to be aware of the potential hazards to which they may be exposed in construction environments and how to reduce these risks.

Unit introduction

This unit introduces learners to the health and safety and welfare issues associated with developing practical skills in a construction environment.

The first part looks at causes of construction accidents. The second part looks at hazards in construction, safety signs, fire extinguishers and the use of personal protective equipment (PPE). The third part explores the HASAWA and COSHH Regulations.

Essential resources

This is a theory-based unit and it is expected that centres will have suitable classroom facilities with appropriate resources for effective delivery of the unit.

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 causes of accidents in construction	1.1	Describe the causes of accidents in construction	<ul style="list-style-type: none"> □ Causes: falls, trips, electrocution, poor manual handling, poor maintenance, lack or misuse of personal protective equipment (PPE), messing about, untidiness, below ground, confined spaces, moving plant or machinery, drugs, tiredness, daylight
2	Know about the hazards and safety signs in a construction environment	2.1	Identify potential hazards in a construction environment	<ul style="list-style-type: none"> □ Materials: sawdust, nails, medium density fibreboard (MDF), lime, paraffin, solvent paints, solders, lead, asbestos □ Tools: tenon saw, wood chisel, bolster, hammer, basic pipe-welding equipment □ Equipment: stepladders, hop-ups, trestles
		2.2	Identify the safety signs used in a construction environment	<ul style="list-style-type: none"> □ Safety signs: mandatory prohibition, warning and safe condition signs
3	Know how to minimise the risk of hazards	3.1	Identify and select methods used to minimise the risks of hazards	<ul style="list-style-type: none"> □ Risks: basic risk assessment, reduce/minimise risks, types and uses of PPE, planning for work, correct use of ladder
		3.2	Describe ways to reduce risks	
4	Know about the different types of fire extinguishers and when to use them	4.1	List different types of fire extinguishers	<ul style="list-style-type: none"> □ Types: water, foam, powder, carbon dioxide; when they should be used
		4.2	Describe when different types of fire extinguishers should be used	

Learning outcomes		Assessment criteria		Unit amplification
5	Know about the legislation HASAWA and COSHH	5.1	Describe the purpose of HASAWA	<ul style="list-style-type: none"> □ <i>Legislation</i>: key concepts □ <i>Implications</i>: employers, employees, self-employed people and learners
		5.2	Describe the purpose of COSHH	

Information for tutors

Delivery

The most important requirement of the unit is that learners are given learning opportunities to develop health, safety and welfare awareness in construction environments.

Tutors should also encourage the reliable, positive and enthusiastic response to learning that employers value in prospective employees. The evidence required to satisfy the assessment criteria can be achieved in one carefully designed assignment.

This unit will be most effectively delivered using a combination of directed research on the part of the learner, case studies and hazard awareness exercises, with appropriate support from the tutor. The internet can be used to find details of PPE and its application, as well as information on material hazards. Development of hazard checklists prior to workshop activity would assist hazard awareness and this would form part of the assessment evidence required for this unit. An outline of the purpose of HASAWA and COSHH risk assessments is all that is required as part of the learner's work.

Outline learning plan

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

Topic and suggested assignments/activities

Know the causes of accidents in construction.

Whole-class, tutor-led discussion on statistics and causes of accidents. Learners draw graphs/pie charts/produce a health and safety information poster. Source material to include books, CD ROMs, newspapers, trade magazines and the internet. Presentations by experienced construction personnel will prove useful.

Know about the hazards and safety signs in a construction environment.

Whole-class, tutor-led discussion about hazards in construction/safety signs. Source material to include books, CD ROMs, newspapers, trade magazines and the internet. Presentations by experienced construction personnel will prove useful.

Know how to minimise the risk of hazards.

PPE identification sheets. What hazard(s) has/have been minimised/reduced by selecting particular PPE. Discussion of other methods of reducing risk in construction.

Know about the different types of fire extinguishers and when to use them .

Learners identify different types of fire extinguishers in the building and when to use them. Plan of building with types of fire extinguishers noted. Video/film on this subject.

Know about the HASAWA and COSHH Regulations.

Whole-class, tutor-led discussion on a government act/law. Brief content of HASAWA and COSHH. Implications for people working in construction.

Assessment

For 1.1, learners must describe the causes of accidents in the construction industry. This will be evidenced most clearly by the learner's assessment work.

For 2.1 and 2.2, learners must identify the hazards and safety signs in a construction environment. This will be evidenced most clearly by completion of topical identification sheets by the learner.

For 3.1 and 3.2, learners must identify, select and describe methods used to minimise the risks of hazards. This will be evidenced most clearly by completion of hazard identification sheets, possibly prior to vocational tasks assessment work.

For 4.1 and 4.2, learners must identify the different types of fire extinguishers and when to use them. This will be evidenced most clearly by the learner completing topical identification sheets.

For 5.1 and 5.2, learners must outline the purpose of HASAWA and COSHH. This will be evidenced most clearly their assessment work.

Suggested resources

Books

Health and Safety in Construction (3rd Edition, HSE Books, 2001)
ISBN 9780717661824

Topliss S and Murray-Smith J – *BTEC Entry 3/Level 1 Construction Student Book*
(Pearson, 2010) ISBN 9781846909207

Websites

www.hse.gov.uk

www.hss.com