



QNUK Level 1 Award in Health & Safety in a Construction Environment

# UNIT 01

## **Know the Principles of Risk Assessment for Maintaining & Improving Health & Safety at Work**

supporting **safer sites**

## Unit 01: Know the Principles of Risk Assessment for Maintaining & Improving Health & Safety at Work

### Assessment Criteria: Summary

#### **This Workbook Covers The Following Assessment Criteria:**

- 1.1** The purpose of risk assessments
- 1.2** The legal requirements of risk assessments and method statements
- 1.3** The common causes of work related fatalities and injuries
- 1.4** The implications of not preventing assessments
- 1.5** The meaning of accident, near miss, hazard, risk and competence related to H&S
- 1.6** Typical hazards and the potential risks associated with them
- 1.7** The importance of reporting accidents and near misses
- 1.8** Typical accident reporting procedures
- 1.9** Who is responsible for making accident reports
- 1.10** The purpose of dynamic risk assessments

## Unit 01: Know the Principles of Risk Assessment for Maintaining & Improving Health & Safety at Work

### Assessment Criteria 1.1: The Purpose of Risk Assessments & Method Statements

#### **What is a Risk Assessment?**

A Risk Assessment is a careful examination of what, in the workplace, could cause harm to people. This can be used to determine whether enough precautions have been taken or more should be done to prevent harm.

#### **The Purpose of a Risk Assessment:**

- To identify hazards which could cause injury or illness
- To decide what risks there are and how serious they could be
- To take action to eliminate the hazards or if this isn't possible control the risk

**Risks** are the chances of an accident happening.

**Hazards** are things that could cause an accident.

## Unit 01: Know the Principles of Risk Assessment for Maintaining & Improving Health & Safety at Work

### Assessment Criteria 1.1: The Purpose of Risk Assessments & Method Statements

#### **What is a Method Statement?**

A method statement helps control risks identified in a risk assessment by describing the steps (method) workers must take when carrying out a particular job.

They are usually used for high-risk work and outline a suitable sequence in which tasks should be undertaken

#### **Method Statements Should Include:**

- A description of the work
- Precautions to make sure the work is carried out safely
- Address and contact details
- control measures
- the correct way to carry out each task

## Unit 01: Know the Principles of Risk Assessment for Maintaining & Improving Health & Safety at Work

### Assessment Criteria 1.1: The Purpose of Risk Assessments & Method Statements

#### **Inductions & Site Rules**

Employers are required by law to provide site inductions and rules and these should take place as soon as you start work

#### **Site Rules Include:**

- Personal protective equipment
- Use of radios and mobile phones
- Smoking
- Restricted areas
- Hot works (welding etc.)
- Traffic management systems
- Pedestrian routes
- Site tidiness and fire prevention
- Permits-to-work
- Emergency arrangements

#### **Site Inductions Include:**

- Outline of the project
- First-aid arrangements
- Accident & incident reporting
- What to do in an emergency
- Arrangements for briefing workers on an ongoing basis, e.g. toolbox talks
- Individual worker's responsibility for health and safety.

## Unit 01: Know the Principles of Risk Assessment for Maintaining & Improving Health & Safety at Work

### Assessment Criteria 1.1: The Purpose of Risk Assessments & Method Statements

#### **Control Measures**

Control measures are actions and/or activities that are taken to prevent, eliminate or reduce the occurrence of a hazard that has been identified and typically include the following:

#### **Is there another way of carrying out the job or avoid doing it?**

Using a scaffold tower

#### **What Safety Equipment Could Be Used?**

Guardrails on scaffolding, placing barriers around the foot of ladder or scaffolding tower. If you can only use a ladder, tie-off ladder at the top.

#### **What PPE (Personal Protective Equipment) Should Be Worn?**

A hard hat or climbing belt

#### **Is There Anything Else Which Can Be Done?**

Provide staff with training (on working at height)



## Unit 01: Know the Principles of Risk Assessment for Maintaining & Improving Health & Safety at Work

### Assessment Criteria 1.1: The Purpose of Risk Assessments & Method Statements

#### **Employers' Responsibility**

Under the law employers are responsible for health and safety management. It is an employer's duty to protect the health, safety and welfare of their employees and other people who might be affected by their business.

#### **In the event of an emergency:**

Follow your employer's procedures which should be provided as soon as you start on site and normally include:

- Where to go
- What to do
- How to raise the alarm
- Who to inform



## Unit 01: Know the Principles of Risk Assessment for Maintaining & Improving Health & Safety at Work

### Assessment Criteria 1.2: The Legal Requirements of Risk Assessments & Method Statements

#### **Who has the responsibility of ensuring risk assessments are undertaken?**

The following must make an assessment of the health and safety risks of carrying out their work in order to identify what needs to be done to control risks to health and safety:

- Self-employed individuals
- Employers

#### **Risk Assessments Must Be:**

- **Undertaken** and **communicated** to workers
- **Suitable** and **sufficient**, i.e. they should show that a proper check was made

#### **Risk assessments are legally required by the following legislation:**

- Management of Health and Safety at Work Regulations 1999 (Regulation 3)

**Employers** have a legal requirement to implement risk assessments and **employees** have a responsibility to follow them



## Unit 01: Know the Principles of Risk Assessment for Maintaining & Improving Health & Safety at Work

### Assessment Criteria 1.2: The Legal Requirements of Risk Assessments & Method Statements

#### **The Following Legislation Also Requires Specific Risk Assessments for Certain Hazards:**

- Control of Substances Hazardous to Health Regulations (COSHH)
- Working at Height Regulations
- Control of Lead at Work Regulations
- Control of Asbestos Regulations
- Confined Spaces Regulations
- Gas Safety (Installation and Use) Regulations

#### **Method Statements - Are They Required by Law?**

While not required by law, method statements are used for many construction activities and are proven to be an effective and practical way to help plan, manage and monitor construction work.

## Unit 01: Know the Principles of Risk Assessment for Maintaining & Improving Health & Safety at Work

### Assessment Criteria 1.2: The Legal Requirements of Risk Assessments & Method Statements

#### Reporting

Fatalities & serious injuries are required to be reported to the Health and Safety Executive by the Reporting of Injuries, Diseases & Dangerous Occurrences Regulations (**RIDDOR**)

#### Most Common Causes of Fatal Injuries:

- Workers falling from height
- Being trapped by something collapsing or overturning
- Being struck by a moving object

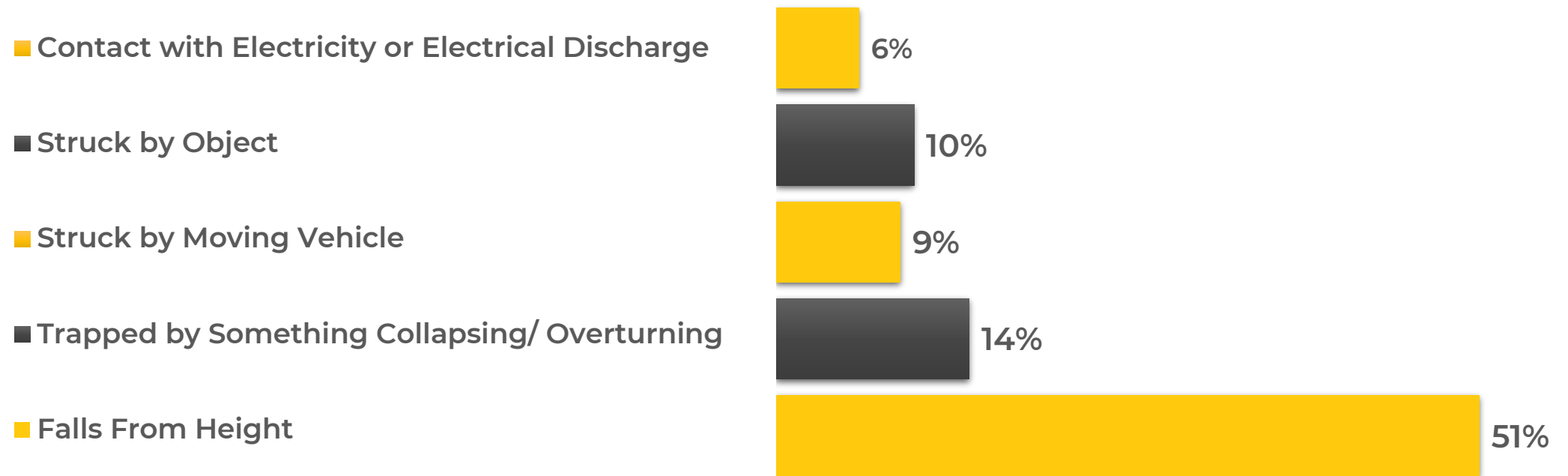
#### Other Causes of Fatalities:

- Collapse of excavations, structures or stacks of material
- Contact with machinery
- Contact with electricity
- Slips, trips and falls on the same level



**Unit 01: Know the Principles of Risk Assessment for Maintaining & Improving Health & Safety at Work**  
**Assessment Criteria 1.3: State Common Causes Of Work Related Fatalities & Injuries**

**Main Kinds of Fatal Accidents for Workers (RIDDOR 2021/22)**



*See: [www.hse.gov.uk](http://www.hse.gov.uk) for the most up-to-date statistics*

## Unit 01: Know the Principles of Risk Assessment for Maintaining & Improving Health & Safety at Work

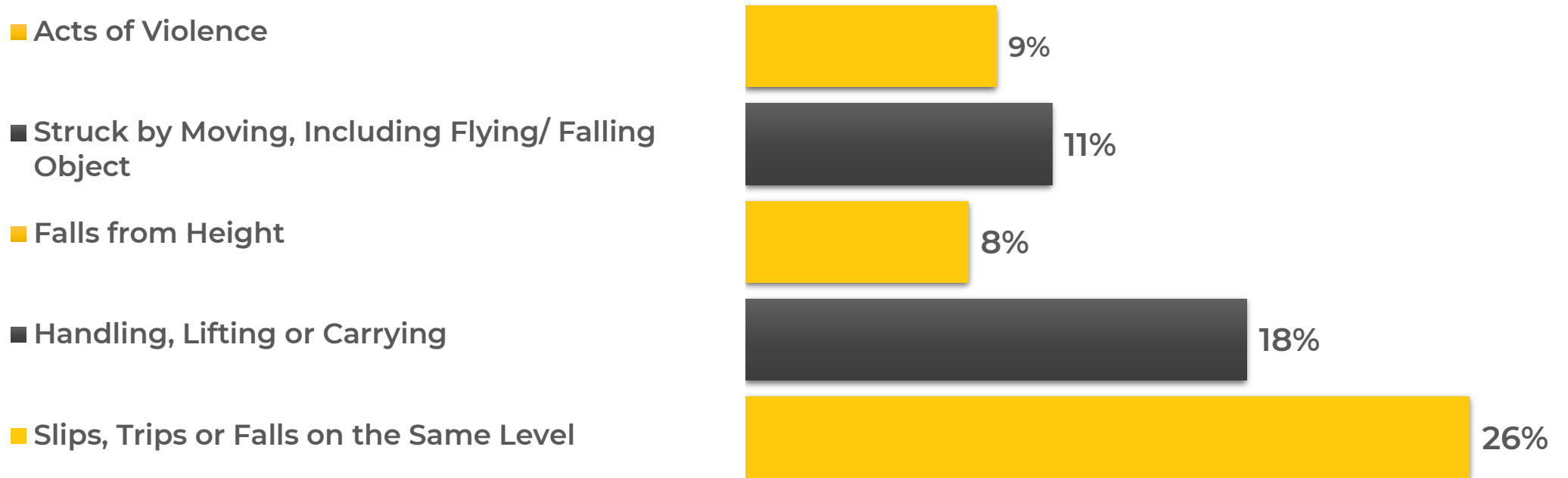
### Assessment Criteria 1.3: State Common Causes Of Work Related Fatalities & Injuries

#### **Common Injuries & How These Could Occur:**

- Slips trips & falls on the same level due to hazard not being removed
- Handling lifting or carrying due to incorrect lifting technique
- Being struck by a moving object due to poor risk assessment
- Falls from height caused by a lack of control measures (barriers/ guard rails)
- Being struck by object ejected from machinery due to lack of maintenance/ training on correct usage
- Repetitive motion or strain injuries through lack of training and lack of risk assessment
- Damaged PPE failing to protect the wearer

**Unit 01: Know the Principles of Risk Assessment for Maintaining & Improving Health & Safety at Work**  
**Assessment Criteria 1.3: State Common Causes Of Work Related Fatalities & Injuries**

**Main Kinds of Non-Fatal Accidents for Workers (RIDDOR 2019/20)**



*See: [www.hse.gov.uk](http://www.hse.gov.uk) for the most up-to-date statistics*

## Unit 01: Know the Principles of Risk Assessment for Maintaining & Improving Health & Safety at Work

### Assessment Criteria 1.4: The Implications of Not Preventing Accident or Ill Health at Work

#### **Business Costs If Accidents & Ill Health Are Not Prevented:**

- Financial - lost earnings, sick pay and being fined and imprisonment
- Legal - employers can be prosecuted if it is found that they have not followed the legislation and accident or ill health has occurred (or the environment damaged)
- Poor reputation resulting in lost earnings and loss of productivity
- Damage to equipment or property

#### **Human Costs If Accidents & Ill Health Are Not Prevented:**

- Pain, suffering & ill health (for workers and members of the public)
- Death
- Loss of productivity & earnings

## Unit 01: Know the Principles of Risk Assessment for Maintaining & Improving Health & Safety at Work

### Assessment Criteria 1.4: The Implications of Not Preventing Accident or Ill Health t Work

#### Who Enforces Health & Safety Law & What Are Their Main Functions?

**HSE Inspectors** are employed by the Health & Safety Executive & responsible for inspecting construction sites, schools, hospitals and factories.

**Environmental Health Officers** are employed by the local authority & responsible for inspecting shops, offices, residential homes & restaurants

#### Types of Notice That Inspectors Can Serve:

Inspectors can issue the following notices if onsite Health & Safety does not meet standards:

- **Improvement Notice** This may be issued if the inspector believes that workers or organisations are breaking a health and safety law that may pose a risk to people.
- **Prohibition Notice** This may be issued if the inspector believes that there is risk of serious personal injury. This sort of notice usually requires the activity to stop immediately.



## Unit 01: Know the Principles of Risk Assessment for Maintaining & Improving Health & Safety at Work

### Assessment Criteria 1.5: The Meaning of The following In Relation to Health & Safety At Work

#### Meanings in Relation to Health & Safety at Work

<b>Accident</b>	Any unplanned and unexpected event that resulted in injury or ill health of people, or damage or loss to property
<b>Near Miss</b>	Any unplanned and unexpected event which, while not causing injury or damage or loss, might have done so if the circumstances had been only slightly different.
<b>Hazard</b>	Something with the capacity to cause harm, such as electricity, chemicals, asbestos, working at height.
<b>Risk</b>	The likelihood that a hazard will actually cause harm and how much.
<b>Competence</b>	The combination of training, skills, experience and knowledge that a person has and their ability to apply them to perform a task safely.
<b>Incident</b>	An event where an injury or ill health or a fatality occurred or could have occurred

## Unit 01: Know the Principles of Risk Assessment for Maintaining & Improving Health & Safety at Work

### Assessment Criteria 1.6: Typical hazards and potential risks

#### **Typical Hazards & Potential Risks Encountered On Site Include:**

#### **Resources:**

- Cements (breathing in of dust, dermatitis)
- Solvents (breathing in of fumes)
- Bagged goods, bricks, blocks (impact, manual handling risks, trip hazard);
- Loose materials such as sand and aggregates (slip and trip hazard)
- Timber (risk of impact, trip hazard)
- Paint (breathing in of fumes, slips from spillages)
- Gases & fuel (explosion, inhaling fumes, dermatitis from contact, slip hazard from spills)
- Water (slips)

## Unit 01: Know the Principles of Risk Assessment for Maintaining & Improving Health & Safety at Work

### Assessment Criteria 1.6: Typical hazards and potential risks

**Typical hazards and (potential risks) encountered on site include:**

#### **Equipment:**

- Wrongly constructed equipment collapsing causing crush injuries, impact, cuts,
- Risk of entanglement with power tools
- Ejection of material from power tools or from materials being worked on
- Vibration/ white finger
- Musculoskeletal injuries from operation and carrying equipment around site

## Unit 01: Know the Principles of Risk Assessment for Maintaining & Improving Health & Safety at Work

### Assessment Criteria 1.6: Typical hazards and potential risks

**Typical hazards and (potential risks) encountered on site include:**

#### **Obstructions:**

- Trips, falls from clambering over obstructions
- Inappropriate maneuvering of mobile plant and vehicles
- Impairment of sight lines
- Unnecessary and inappropriate movement of materials, risk of collision.
- Blocked emergency access by storage of materials

## Unit 01: Know the Principles of Risk Assessment for Maintaining & Improving Health & Safety at Work

### Assessment Criteria 1.6: Typical hazards and potential risks

**Typical hazards and (potential risks) encountered on site include:**

#### **Storage:**

- Potential collapse of material stacks, material falling from stacks, leakage of fuel and chemicals, dust hazard, manual handling risks when storing material, fire risk.

#### **Services:**

- Risk of contact with overhead and underground electricity cables, breakage of water and gas supplies.

#### **Waste:**

- Manual handling risks, cuts and abrasions from sharp edges or projections, risk if on-site burning of waste is uncontrolled, risks associated with skips and debris chutes, special waste such as asbestos and lead.

## Unit 01: Know the Principles of Risk Assessment for Maintaining & Improving Health & Safety at Work

### Assessment Criteria 1.6: Typical hazards and potential risks

**Typical hazards and (potential risks) encountered on site include:**

#### **Work Activities:**

- Risks associated with working at height and in excavations, demolition, concrete pouring, scaffolding erection and dismantling.

#### **Services:**

- Risks to workers, other road users and pedestrians from being struck by moving plant and vehicles, being struck by loads carried on moving plant and vehicles, overturning of moving plant and vehicles, exhausts from engines collecting in excavations - this can require a gas sniffer and confined spaces, proximity of live overhead power cables, fuel hazards, noise, vibration.

## Unit 01: Know the Principles of Risk Assessment for Maintaining & Improving Health & Safety at Work

### Assessment Criteria 1.6: Typical hazards and potential risks

**Typical hazards and (potential risks) encountered on site include:**

#### **Fixed Plant & Equipment:**

- Movement of tower cranes, lifts and hoists, dangerous moving parts, ejection and entanglement.

#### **Falls From Access Equipment:**

- Risks associated with scaffolding, scaffolding towers, mobile elevated work platforms (MEWPs), advanced access systems, ladders, hop-ups.



## Unit 01: Know the Principles of Risk Assessment for Maintaining & Improving Health & Safety at Work

### Assessment Criteria 1.7: State the Importance of Reporting Accidents and Near Misses

#### **Recording & Reporting Accidents and Near Misses**

All accidents must be recorded by law and RIDDOR is the regulation which requires serious accidents incidents and near misses to be reported. Recording and reporting is important because it:

- Helps avoid similar incidents in the future and allows for accident investigation and finding the cause of an accident / near miss
- Prevents or reduces the risk of future occurrences
- Helps with future training
- Develop a positive health and safety culture
- Reporting such events is a legal requirement

#### **If an accident occurs -workers duty to report all incidents and near misses**

Every worker should report incidents or accidents to their manager or people in control of work premises.

## Unit 01: Know the Principles of Risk Assessment for Maintaining & Improving Health & Safety at Work

### Assessment Criteria 1.8: State typical accident reporting procedures

#### **Reporting requirements under Reporting of Injuries, Diseases and Dangerous Occurrences (RIDDOR)**

RIDDOR requires employers, the self-employed and people in control of work premises (Responsible Person) to **report** the following serious workplace **accidents**, occupational diseases and specified dangerous occurrences (**near misses**) to the Health & Safety Executive:

- Specified injuries(breaks, unconsciousness, amputation and crush injuries) which result in a worker being incapacitated for more than 7 consecutive days
- Industrial diseases listed by RIDDOR (e.g. cramp, tendonitis, asthma)
- Certain 'dangerous occurrences' (near-miss accidents) including the collapse of lifts and lifting equipment; plant or equipment coming into contact with overhead power lines; explosions or fires causing work to be stopped for more than 24 hours
- Injuries to a member of the public resulting in them being taken to hospital

## Unit 01: Know the Principles of Risk Assessment for Maintaining & Improving Health & Safety at Work

### Assessment Criteria 1.8: State typical accident reporting procedures

#### **Recording of Accidents in the Accident Book & Who Should Record These**

Every accident should be recorded by the persons involved, witnesses, supervisors or managers and if relevant health and safety professionals (responsible persons).

#### **Information Required in an Accident Book:**

- Full name, address and occupation of the injured person
- Date and time of the accident
- Place where the accident happened
- Cause and nature of the injury
- Name, address and occupation of the person giving the account (if someone other than the injured person)

## Unit 01: Know the Principles of Risk Assessment for Maintaining & Improving Health & Safety at Work

### Assessment Criteria 1.9: Who is responsible for making accident reports

#### **Recording of Accidents in the Accident Book & Who Should Record These**

Every accident should be recorded by the persons involved, witnesses, supervisors or managers and if relevant health and safety professionals (responsible persons).

Depending on the incident some may need to be reported to the HSE by the site safety manager

#### **Information Required in an Accident Book:**

- Full name, address and occupation of the injured person
- Date and time of the accident
- Place where the accident happened
- Cause and nature of the injury
- Name, address and occupation of the person giving the account (if someone other than the injured person)

## Unit 01: Know the Principles of Risk Assessment for Maintaining & Improving Health & Safety at Work

### Assessment Criteria 1.10: Dynamic Risk Assessments

#### **Accident Reporting**

Every employee should report incidents or accidents to their manager.

**Example 1:** If you cut yourself or experience and minor injury whilst onsite you need to report it immediately to the designated first aider who will record it in the accident book.

**Example 2:** If you witness an accident you should call other workers to get help and check if it safe to approach the injured person.

#### **Definition of a Dynamic Risk Assessment**

Dynamic risk assessments allow quick assessments of rapidly changing work environments to be made so work can continue to be done safely.

#### **When Dynamic Risk Assessments Might be Used**

Dynamic risk assessments are used when an unexpected hazard has to be risk assessed on the spot and are relevant in almost any work environment where the situation is constantly changing. On site they are commonly used by workers on the spot when a new situations arise such as a large vehicle arriving onsite.

## Unit 01: Know the Principles of Risk Assessment for Maintaining & Improving Health & Safety at Work

### Assessment Criteria: First Aid

#### **First Aid**

The Health and Safety (First Aid) Regulations 1981 require all construction sites to have:

- A first aid box with enough equipment to cope with the number of workers on site
- An appointed person to take charge of first-aid arrangements
- Information telling workers the name of the appointed person or first aider and how to contact them.

Construction is a high-risk workplace, and a construction first aid kit needs to be stocked to meet high-risk needs. The kit should be in a heavy duty toughened case. Construction site first aid kits need to have enough contents for the number of workers on site.

#### **Back Injuries**

Back injuries are commonplace in construction and can be made worse if treated incorrectly. If you witness a back injury you should seek assistance from a trained professional.

## Unit 01: Know the Principles of Risk Assessment for Maintaining & Improving Health & Safety at Work

### Assessment Criteria: First Aid

#### **Due to the nature of a construction site, their first aid kit should include:**

The Health and Safety (First Aid) Regulations 1981 require all construction sites to have:

- A first aid box with enough equipment to cope with the number of workers on site
- An appointed person to take charge of first-aid arrangements
- information telling workers the name of the appointed person or first aider and how to contact them.

Due to the nature of a construction site, the first aid kit should include:

- Moist wipes.
- Disposable gloves
- Medium and large sterile dressings.
- Medium & large sterile pads
- Sterile eye pads.
- Sterile eye pads.
- Saline solution.
- Eye baths.
- Triangular bandages.
- Safety pins.

It is recommended that tablets and medicines should **NOT** be kept in the first-aid box.



## Unit 01: Know the Principles of Risk Assessment for Maintaining & Improving Health & Safety at Work

### Assessment Criteria: Permits To Work

#### **Permits To Work**

A permit-to-work is a formal recorded process used to control work which is identified as potentially hazardous. They are issued by authorised supervisors - essential features of permit-to-work are:

- That they are issued by a manager or supervisor and allow a person or group of people to carry out a task, under strict controls.
- Clear identification of who may authorise particular jobs (and any limits to their authority) and who is responsible for specifying the necessary precautions.
- Clear identification of the types of work considered hazardous Clear and standardised identification of tasks, risk assessments, permitted task duration and supplemental or simultaneous activity and control measures.

You have now  
completed **Unit 01** of  
your course

You should now  
attempt the practice  
questions before  
moving on to **Unit 02**