Unit 302: Erecting and dismantling access equipment and working platforms

Sample scheme of learning

Please revise the following text to suit your requirements.

This sample scheme of learning covers both classroom and workshop based learning for Unit 302. It is based on 7.5 hours per session for 4 sessions, plus additional hours for independent learning. Some suggestions of independent learning are made in the session plans.

This is only an example of a possible scheme of learning. You can use it as it is, adjust it or extract content to suit your delivery needs, or the needs of individual learners. We have endeavoured to make the schemes of learning as flexible as possible: where sessions may be taught out of order, this has been signposted. You may find it useful to use our lesson plan template to translate and adapt the sessions.

The schemes of learning are intended to be learner-focused, and they embrace current pedagogical methodology such as flipped and blended learning. They include the following types of learning tasks:

- **Pre-learning** – tasks for the learners to complete in advance of the session to allow for flipped learning
- **Active learning** – active, experiential and discovery learning approaches
- **Challenge focus** – stretching tasks to challenge more able learners
- **Independent learning** – tasks that learners can complete individually or collaboratively without tutor supervision. These tasks may be given as homework.

Reference is made within the scheme of learning to learning materials and other resources required for each session. A version of this scheme of learning with **full supporting materials** is also available to purchase on **SmartScreen.co.uk**. Resources consist of physical equipment required, as well as any technologies needed. Where possible we have included blended learning activities that make good use of technology so as to help centres fulfil the minimum amount of digital teaching recommended by the government.

The scheme of learning also signposts opportunities within the unit content to introduce the following wider skills and government initiatives:

- English, mathematics and ICT
- employability skills and behaviours
- British values (including the Prevent strategy).

Centres should also incorporate the following themes, where appropriate. Although they are not specifically referred to in the scheme of learning, City & Guilds regards these as essential in the teaching of the qualification:

- spiritual, moral, social and cultural issues
- health and safety considerations, in particular the need to impress upon learners the fact that they must preserve the health and safety of others as well as themselves
- environmental education and related European issues.

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Unit 302: Erecting and dismantling access equipment and working platforms

Sample scheme of learning

Course/Qualification: _____ **Tutor's name**: _____

Number of sessions: 4 **Delivery hours**: 30 **Venue**: _____ **Group**: _____

Learning outcomes:	**To enable learners to**:
• Check and prepare access equipment and working platforms • Erect, access, dismantle and store access equipment and working platforms	• Select access equipment and working platforms • Inspect and identify suitability of access equipment • Erect access equipment and working platforms • Dismantle and store access equipment components

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Session 1: Selecting access equipment and working platforms **Suggested Teaching Time**: 7.5 hours

Learning Outcome: 1. Check and prepare access equipment and working platforms

- Learners must be able to identify components and select the appropriate access equipment and working platforms for different types of internal and external work.
- This unit could be delivered or re-capped at start of course due to health and safety requirements of safe working practices.
- Most of the practical tasks require the use of scaffold systems.

Topics: 1.1 – Select access equipment and working platforms

Key learning activity/approach	Suggested materials and resources	Skills check
Pre-learning: Learners will need to produce a list of scaffold and working platform component parts used when erecting systems. Learners can access the following link: www.osha.gov to help them produce their list, which will be used as part of their presentation during the session. **Active learning:** • Tutor to produce **Presentation 1** which will give learners an introduction to the unit and facilitate a **discussion** with the class on their prior knowledge of the session topic. • Tutor to use following **video** link as a quick intro for the unit, regarding the considerations that need to be taken into account prior to using scaffold systems: www.youtube.com/watch?v=fcOg5MbXukA • Learners to discuss their pre-learning activity in pairs and then combine their research by producing a 10-minute **presentation** on a **flip chart** to be delivered by both learners to their peers as part of the session; tutor to facilitate and offer IAG to learners during their discussions. • Tutor to produce **Presentation 2** on the range of common scaffold systems used by the trade. Tutor to produce **Activity 1** to be completed	**Resources** For the tutor to devise in advance: • **Presentation 1** • **Presentation 2** • **Presentation 3** • **Worksheet 1** • **Worksheet 2** • **Activity 1** **Materials** • Smartboard • Flip chart paper • Pens/Pencils • Suggested learning resource textbooks • Various access	• Tutor to assess learners' prior knowledge by asking questions in discussion and by assessing the content in the flip chart presentation. • Learners to swap answers in **Activity 1** and mark against correct answers. Tutor to assess during this by giving correct answers and questioning learners' thoughts. • Tutor to check learners' understanding by monitoring their completed **Worksheet 1** and asking questions. • Tutor to check learners' understanding during visit to look at suitable scaffold systems by asking questions and reviewing

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Key learning activity/approach	Suggested materials and resources	Skills check
at the end of the presentation to test learners' underpinning knowledge. Activity could consist of scaffold images – learners to name the image and function of component. Tutor to check learners' answers by way of peer marking. • Tutor to produce **Presentation 3** on range of different access equipment and working platforms used within the industry. Tutor to produce **Worksheet 1** with questions about the different scaffold systems used and get learners to complete this after the presentation. • Tutor to take learners to workshop/scaffold area to look at range of scaffold systems/components. Learners to pair up with a different partner and **record** what considerations should be taken into account prior to selecting a suitable scaffold system. • Tutor to **discuss** with learners the different considerations that need to be taken into account prior to selecting systems. • Tutor to produce **Worksheet 2** and require learners to think about the different considerations that need to be taken into account when selecting scaffold systems, such as ground conditions, height of work, duration of work and types of scaffold needed. It could be a list of the considerations that need to be thought about, with learners writing a brief reason beside each one and explaining the importance of that consideration. Tutor to ask each learner to present their answers verbally to peers as part of marking and checking answers. **Challenge focus:** • More able learners could create a Power Point presentation individually on designing a suitable scaffold system to paint the outside of their centre/college, including the health and safety requirement, which they will present to peers during next session.	equipment and working platforms	considerations. • Learners to swap answers in **Worksheet 2** and mark against correct answers. Tutor to assess during this by giving correct answers and questioning learners' thoughts. • Tutor to assess more able learners by reviewing their presentations about suitable scaffolds. Other learners to be assessed by asking their peers questions about the scaffolds.

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Key learning activity/approach	Suggested materials and resources	Skills check
Independent learning: • Learners could design a **checklist** to be used for inspecting the scaffold used in their place of work for the next session. • Learners to produce a list of potential hazards that could occur when using a range of scaffold equipment. List to be discussed during the next session.		

Opportunities to develop maths, English, ICT and wider skills:

English: • **Speaking and listening** skills in **presenting** can be developed during the scaffold systems and component pre-learning task. • **Speaking and listening** skills can be demonstrated in developing the **discussion** about the considerations that should be taking into account prior to selecting scaffold, **giving a point of view** as well as **allowing** and **responding** to **others' opinions**. • Learners to demonstrate **reading** skills in the challenge focus task of creating a PowerPoint presentation: **identifying** and **summarising** the **main points** about which scaffold system would be suitable for the job to be completed. • More able learners can demonstrate **writing** skills when producing a PowerPoint presentation about scaffold systems and scaffold components. Check that learners have used **formal language** appropriately. Ensure that correct **spelling**, **punctuation** and **grammar** have been used. **Maths:** • Learners will need to **measure the width and height** of the scaffold systems identified, using metres, in a decorating context,	**British values:** • Remind learners about **staying safe online** and raise awareness of the potential risk of radicalisation as part of the government's '**prevent strategy**'. • Remind learners about the **importance** of the **laws of England**, and their **purpose** to **protect citizens** when discussing H&S laws in the workplace. • Talk about how learners may come into contact with wider **public institutions**, such as the **Health and Safety Executive** and the **local council**, the need for learners to **respect** them, and why they are **important** in ensuring safe working practices. Also discuss how vital it is for planning permissions to be followed as part of a construction project. • Introduce and talk about the **importance** of **respecting others** in the workplace as part of looking at individual strengths and weaknesses, and how different people's skills might complement one another when working in a team.

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as part of the PowerPoint task. **ICT:** • More able learners could use appropriate **presentation software** to complete their presentation about different types of scaffold systems.	**Employability:** • Learners should demonstrate they can **actively listen** during the demonstration, **understand** what has been said and **act** accordingly by following the instructions correctly. Learners should be encouraged to use techniques to ensure that they understand the instructions, eg **repeating back** what was said, **summarising** or **asking clarifying questions**. • Learners can experience **working in a team** as part of making the presentation about scaffolding systems and components. Check that learners are **working well together** (letting one another have input, being positive, motivated, etc) and all are **contributing** appropriately.

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Session 2: Inspecting and identifying the suitability of access equipment **Suggested Teaching Time**: 7.5 hours

Learning Outcome: 1. Check and prepare access equipment and working platforms

- Learners must be able to identify hazards and understand the reasons for carrying out inspections and inspection time spans.
- Learners must also be able to carry out visual checks on access equipment.
- This unit could be delivered or re-capped at the start of the course due to health and safety requirements of safe working practices.
- Most of the practical tasks require the use of scaffold systems.

Topics: 1.2 – Inspect and identify suitability of access equipment

Key learning activity/approach	Suggested materials and resources	Skills check
Pre-learning: Learners to access the internet and use the following link: www.ilo.org to read the data sheet on the dangers of working on scaffold systems. Learners to **write a summary** of the dangers of working at height, which will be used as part of the session. **Active learning:** • Tutor to **discuss** the learners' summaries on the dangers of working at height, and offer further information regarding hazards of working at height. • Tutor to produce **Presentation 4** on the different hazards and inspections associated with working at height. As part of presentation, the tutor could also use the following link to press home the importance of using scaffold systems correctly: https://videos.files.wordpress.com/6Ddq5ogK/how-one-action-affects-another-workplace-safety_std.mp4. • Ask learners to divide into groups during the presentation and show the **video.** When appropriate, they should **record** the hazards identified within the presentation and video. Tutor to ask verbal questions on the	**Resources** For the tutor to devise in advance: • **Presentation 4** • **Presentation 5** • **Worksheet 3** • **Worksheet 4** • **Activity 2** • www.pasma.co.uk • www.hse.gov.uk **Materials** • Smartboard • Flip chart/paper • Pens/Pencils	• Tutor to assess learners' knowledge by reviewing their summaries on dangers of working at a height, and by asking them to share their conclusions. • Tutor to check learners' understanding by asking questions in relation to the correct answers in **Activity 2** and **Worksheet 3**. • Tutor to check understanding in class discussion when marking **Worksheet 4** and allow learners to share their thoughts about regulation dimensions for working platforms. • Tutor to check if learners have gained experience and understanding on site by asking

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Key learning activity/approach	Suggested materials and resources	Skills check
subject to check underpinning; learners to answer individually. • Tutor to produce **Worksheet 3**, which could be a question and answer sheet covering the range of hazards associated with access equipment. • Tutor could also produce **Activity 2**, where learners work in pairs to develop an inspection sheet to be used for three types of access equipment. These tasks could be used to check learners' underpinning knowledge of the subject. Both **worksheet** and **activity** to be peer marked with assistance from tutor. • Tutor to produce **Presentation 5** and **Worksheet 4** on the correct regulation dimensions that are in place, relating to scaffold systems as enforced by the WAHR. Learners to work in pairs to answer **Worksheet 4** and, once completed, to swap with peers before marking with tutor. • Tutor to take learners into scaffold area and demonstrate how to check the different components for possible damage, before asking learners to produce a short report on findings. **Challenge focus:** • More able learners to **research** the inspection time periods used in Europe in case learners work abroad in the future; once completed, they are to produce **a table** of the inspection time periods, which will be presented to peers during the next session. **Independent learning:** • Learners to select **two** different scaffold systems by accessing the internet. Once systems have been selected, they need to draw them and add the regulation dimensions to the drawings. • Learners to list the appropriate PPE needed when erecting scaffold systems and **explain/record** their own reasons for their individual selection.	• Suggested learning resource books • Various access equipment and working platforms to carry out visual checks	them to demonstrate how to check different components for possible damage and by marking their short report on their findings. • Tutor to assess more able learners by reviewing their presentations about inspection time periods in Europe, and other learners by asking questions based on the tables. • Tutor to check learners' understanding of regulation dimensions by reviewing the drawings of two different scaffolding systems, and check that they've allocated the correct PPE through their explanations/reasoning.

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Opportunities to develop maths, English, ICT and wider skills:

English: • Learners demonstrate **reading** skills in hazard research task – **identifying** and **summarising** the **main points** about the dangers faced by site construction workers. • **Speaking and listening** skills can be demonstrated in developing the **discussion** about hazards and inspection time periods, **giving a point of view** as well as **allowing** and **responding** to **others' opinions**. • Learners demonstrate **reading** skills in **Activity 2**, as they **identify** the **correct information** to answer the comprehension questions about scaffolding hazards. **ICT:** • Learners have the opportunity to use **advanced search techniques** to **locate, select and evaluate** relevant online sources that provide suitable information about scaffolds, PPE and scaffold inspection time periods used in Europe.	**British values:** • Remind students about the **importance** of the **laws of England**, and their **purpose** to **protect citizens**, when discussing the importance of PPE and scaffold inspection time periods as stated by the WAHR. **Employability:** • Learners should demonstrate that they can **actively listen** during the demonstration, **understand** what has been said and **act** accordingly by following the instructions correctly. Learners should be encouraged to use techniques to ensure that they understand the instructions, eg **repeating back** what was said, **summarising** or **asking clarifying questions**.

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Session 3: Erecting access equipment and working platforms **Suggested Teaching Time**: 7.5 hours

Learning Outcome: 2. Erect, access, dismantle and store access equipment and working platforms

- Learners must be able to identify components, and be able to erect access equipment and working platforms using correct manual handling techniques and in the correct sequence to ensure it is safe for use while wearing correct PPE for the tasks.
- This unit could be delivered/recapped at the start of course due to health and safety requirements of safe working practices.
- Most of the practical tasks require the use of scaffold systems.

Topics: 2.1 – Erect access equipment and working platforms

Key learning activity/approach	Suggested materials and resources	Skills check
Pre-learning: Learners to access the internet and use the following link: www.hse.gov.uk to check the law on scaffolding rules. Once the information has been read, they are to complete a report on the scaffolding contractors, approved by their local council, who can carry out working at height jobs where they live and discuss the list with other peers who live in their postcode area. **Active learning:** • Tutor to produce **Presentation 6** on the correct PPE needed when erecting access equipment and to facilitate a discussion with the class about the importance of PPE, whilst handing out examples of a safety harness, fall arrest ropes and lanyards, etc. • Ask learners to divide into groups with one of the PPE items and produce a **list** of their properties, stating why these properties help to protect those working on site. Learners to **present** their findings to their peers. • Tutor to produce **Worksheet 5**, which could be a series of one-word-answer questions and some extended questions, which require a short	**Resources** For the tutor to devise in advance: • **Presentation 6** • **Worksheet 5** • **Activity 3** **Materials** • Pens • Flip charts • Suggested learning resource books • Range of different access equipment and working platforms/ components	• Tutor to check learners' understanding about law on scaffolding rules by reviewing the report. • Tutor to ask learners questions in the discussion about the importance of PPE. • Tutor to listen to presentations about PPE items and their properties, and check understanding by asking questions and reviewing questions that other learners ask those presenting. • Tutor to check learners' understanding by asking questions in relation to the correct answers in **Activity 3** and marking answers for **Worksheet 5**.

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Key learning activity/approach	Suggested materials and resources	Skills check
paragraph for an answer on the PPE, health and safety requirements, and erecting of scaffold systems to test the learners' underpinning knowledge on the subject. Once finished, tutor to ask learners to peer mark each other's work; tutor to facilitate marking. • Tutor to demonstrate how to erect different types of working platform correctly with assistance from more able learners; other learners to take notes for verbal questioning by tutor during demonstration. • Learners to erect the different working platforms in small groups; tutor to facilitate and offer advice and guidance where needed. • Tutor to produce **Activity 3**, which could ask learners to write out a step-by-step guide on erecting at least two different scaffold systems. Tutor to facilitate and give information where required. **Challenge focus:** • More able learners to go out and find an example of an erected scaffold, either on site or online, and write a **short report** focusing on the potential risks and hazards that could occur with the equipment. **Independent learning:** • Learners to produce a **table** of injury and fatality statistics of workers using various access equipment and working platforms within the construction industry. • Learners to **research** the correct storage methods used for the various access equipment and working platforms within the centre and write a statement detailing the sequence of why, where and how the equipment should be stored.	• PPE equipment	• Tutor to ask questions during demonstration on how to erect different types of working platform and extend the discussion. • Tutor to check the reports of more able learners and ensure that their examples of erected scaffolds and the associated risks/hazards are suitable. • Tutor to review injury and fatality statistics table, ensuring that examples are appropriate. • Tutor to review statement about the importance of the correct storage methods

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Opportunities to develop maths, English, ICT and wider skills:

English: • Learners can practise using appropriate **reading** strategies to **locate** the **key information** within the document on government safety rules relating to scaffolding. They should be encouraged to use **organisational features** (eg contents, headers, pictures) to find relevant parts. • Learners can demonstrate **writing** skills when producing a **report** about the different approved scaffold companies in their area. Check that learners have used **formal language** appropriately. Ensure that correct **spelling**, **punctuation** and **grammar** have been used. • **Speaking and listening** skills in **presenting** can be developed during the PPE presentation task. Learners to use the **correct format** with an **introduction**, **supporting evidence** and **statements**, and **conclusions**. They should adapt the content to **suit the audience** and **purpose**. **ICT:** • Learners have the opportunity to use **advanced search techniques** to **locate, select and evaluate** relevant online sources that provide suitable information about scaffolding companies used by their local authority and storage.	**British values:** • Remind learners about the **importance** of the **laws of England**, and their **purpose** to **protect citizens**, when discussing health and safety laws in the workplace. **Employability:** • Learners should demonstrate that they can **actively listen** during the demonstration, **understand** what has been said and **act** accordingly by following the instructions correctly. Learners should be encouraged to use techniques to ensure that they understand the instructions, eg **repeating back** what was said, **summarising** or **asking clarifying questions**.

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Session 4: Dismantle and store access equipment components **Suggested Teaching Time**: 7.5 hours

Learning Outcome: 2. Erect, access, dismantle and store access equipment and working platforms

Learners must be able to dismantle and store access equipment in accordance with organisational procedures to meet the current environmental and health and safety regulations.

This unit could be delivered/recapped at the start of the course due to health and safety requirements of safe working practices. Most of the practical tasks require the use of scaffold systems.

Topics: 2.2 – Dismantle and store access equipment components

Key learning activity/approach	Suggested materials and resources	Skills check
Pre-learning: Learners to access www.hse.gov.uk and read **The Work at Height Regulations 2005** (a brief guide). Once read, they are to produce a short summary of the key points of the document and bring to class for discussion. **Active learning:** • Tutor to produce **Presentation 7** on the correct methods of dismantling scaffold systems and how to store the components correctly. Tutor to facilitate discussion on correct handling techniques. • Tutor to produce **Worksheet 6** with questions on dismantling access equipment for learners to complete individually. Questions to cover the correct handling techniques, correct PPE, what tools and equipment are needed, correct storage, etc. Once completed, tutor to use peer marking to check answers. • Tutor to divide learners into small groups and give each group a scaffold system to dismantle, while facilitating and giving information, advice and guidance on correct handling techniques. • Learners to observe each small group dismantle systems; tutor to	**Resources** For the tutor to devise in advance: • **Presentation 7** • **Presentation 8** • **Worksheet 6** • **Worksheet 7** • **Activity 4** • **Multiple choice questions** **Materials** • Range of different access equipment and working platforms/ components	• Tutor to check learners' understanding of the importance of **The Work at Height Regulations 2005** by discussing their short summaries and asking questions. • Tutor to question learners about their answers for **Worksheet 6**, and extend the discussion about dismantling and storing access equipment and working platforms. • Tutor to observe learners as they complete the dismantling of a scaffold system task and discuss their thoughts when talking about correct handling techniques. • Tutor to extend discussion with learners about why the WAHR laws are in place.

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Key learning activity/approach	Suggested materials and resources	Skills check
verbally question observers on correct handling and storage methods. • Tutor to produce **Presentation 8** on the Working At Height Regulations and facilitate discussions with learners on why this law is in place. • Tutor to recap the abbreviations used throughout the unit with learners, testing their underpinning knowledge by producing **Worksheet 7**, which consists of questions. Tutor to swap papers and peer mark learners' work. • Learners to complete **Activity 4**, which asks them to draw a suitable storage device for three types of scaffold systems used within the painting and decorating industry. Tutor to facilitate and help with peer marking. • Tutor could produce a **Multiple choice questions** paper activity sheet to test learners' underpinning knowledge on unit content in preparation for future tests. **Challenge focus:** • More able learners to check storage facilities on site and write a **short report** on the suitability of the location and record how the components are actually stored. **Independent learning:** • Learners to **design** a storage area that would accommodate the scaffold systems used during the training for this unit. They are to draw a checklist chart so that equipment can be checked during erection and dismantling of systems, and think about making the components parts more accessible to check during storing activities.	• PPE equipment • Flip chart/paper • Paper • Pens • Notepads • Suggested learning resource books	• Tutor to ensure that learners understand abbreviations in the industry by checking their answers in **Worksheet 7**. • Tutor to question learners about their drawings for **Activity 4** and extend the discussion about suitable storage devices for scaffold systems. • Tutor to review more able learners' understanding of the suitability of storage locations and how components are stored by marking the short report. • Tutor to check learners' design of a storage area by ensuring that checklist chart is correct and appropriate.

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Opportunities to develop maths, English, ICT and wider skills:

English: • Learners demonstrate **reading** skills in reading WAHR brief guide task **identifying** and **summarising** the **main points** about the context of the document. • Learners can demonstrate **writing** skills when producing a **short summary** about the key points of the WAHR brief guide. Check that learners have used **formal language** appropriately. Ensure that correct **spelling**, **punctuation** and **grammar** have been used. • **Speaking and listening** skills can be demonstrated in developing the **discussion** about dismantling and storing the scaffold equipment, **giving a point of view** as well as **allowing** and **responding** to **others' opinions**. **ICT:** • Learners may have the opportunity to engage in **blended learning** in the in-class mobile voting task, which makes use of mobile phones/iPads and online voting tools. This is an example of **collaborative** technology.	**British values:** • Remind learners about the **importance** of the **laws of England**, and their **purpose** to **protect citizens**, when discussing health and safety laws in the workplace. • Talk about **appropriate learner behaviour** both at college and at work when looking at learners' codes of conduct and the similarities with working in a construction context. • Talk about how learners might be able to **contribute positively** to **wider society** as part of discussing social responsibility when working on a construction site. For example, keeping noise to a minimum, organising deliveries during quieter periods of traffic and informing locals of any disruptions well in advance. **Employability:** • Learners should demonstrate that they can **actively listen** during the demonstration, **understand** what has been said and **act** accordingly by following the instructions correctly. Learners should be encouraged to use techniques to ensure that they understand the instructions, eg **repeating back** what was said, **summarising** or **asking clarifying questions**.

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