Unit 102: Introduction to the trades in the construction and built environment sector

# Sample scheme of work

This sample scheme of work covers classroom-based learning for Unit 102. It is based on 3 hours per session for 10 sessions. It is an example only of a possible scheme of work and is based on theory within an FE centre, but can be amended to suit all learning facilities with the necessary adjustments to meet individual learners’ needs.

**You can use the sample scheme of work as it is, adjust it or extract content to create a scheme of work to suit your delivery needs. It can also be adjusted by adding theory and practical workshops to support learners who have/need additional learning time.**

Centres should also incorporate the following themes, where appropriate, as strands running through each of the sections within the qualification. Although they are not specifically referred to in the section content section, City & Guilds regards these as essential in the teaching of the qualification:

* 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
* Essential Skills (Application of Number, Communication, Digital Literacy and Employability)
* extension tasks and differentiation, inclusion, entitlement and equality issues
* spiritual, moral, social and cultural issues
* environmental education and related European issues
* British Values
* use of information learning technology (ILT).

Unit 102: Introduction to the trades in the construction and built environment sector

# Sample scheme of work

**Course/qualification:** Foundation in Construction and Building Services Engineering **Tutor’s name:** Enter the tutor’s name here

**Number of sessions**:10 **Delivery hours**: 30 **Venue**:Enter the venue here **Group**: Enter the group here

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| **Learning outcomes**   1. Know the trades in the construction and built environment sector 2. Know the traditional skills used in construction and building services |

| Session | Objectives/learning outcomes **The learner will:** | Activities and resources | Skills check |
| --- | --- | --- | --- |
| 1–2  6 hours | 1. **Know the trades in the construction and built environment sector**   1.1 The main trades in the construction industry | Activities:   * Ask learners to complete this activity as an introduction to the unit and discuss the answers as a group. Split the class into four groups and have them provide two lists on a flip chart: * trades that work within construction * trades that work in the building services sector.   Each group to present their answers to the class.   * Deliver PowerPoint 1 and facilitate a classroom discussion on the type and scope of work covered by each individual trade, along with sub-divisions of each specific trade: * Trowel occupations: brickwork, blockwork, stonemasonry. * Wood occupations: structural carcassing, first fix, second fix, bespoke joinery. * Plastering: internal solid, external rendering, dry lining, floor surfaces, fibrous. * Decorative finishing and industrial painting occupations: painting, decorating, specialist effects, spraying. * Roofing occupations: waterproof coverings for flat and pitched roofs. * Construction and civil engineering operations: setting out, groundworks, paving, drainage. * Direct learners to explore construction trades further by visiting: <https://nationalcareers.service.gov.uk/job-categories/construction-and-trades> * Direct learners to complete **Worksheet 1** and discuss their answers * As a class, prepare a concise job description for each construction trade listed in the unit.   Resources:   * **PowerPoint 1: Construction trades** * **Worksheet 1: Know the construction trades** * Website: <https://nationalcareers.service.gov.uk/job-categories/construction-and-trades> | Feedback on introduction activity  Oral questioning  **Worksheet 1** |
| 3–4  6 hours | 1. **Know the trades in the construction and built environment sector**   1.2 The main trades in the building services industry   * Electrotechnical * Plumbing * Gas installation engineering * Heating and ventilation | Activities:   * Deliver PowerPoint 2 and facilitate a classroom discussion on the type and scope of work covered by each individual trade as well as the sub-divisions of each specific trade: * Electrotechnical: first and second fix wiring installations. * Plumbing: first and second fix of hot and cold water systems; domestic heating systems; surface and waste-water systems. * Gas installation engineering: service, repairs, maintenance and installation of gas appliances. * Heating and ventilation: installation of oil, gas, and renewable industrial heating systems; heating and ventilation systems. * Direct learners to complete **Worksheet 2** and to discuss their answers. * Direct learners to explore building services engineering (BSE) trades further by visiting: <https://nationalcareers.service.gov.uk/job-categories/construction-and-trades> * As a class, prepare a concise job description of each BSE trade listed in the unit.   Resources:   * **PowerPoint 2: Building services engineering trades** * **Worksheet 2: Know the built environment sector trades** * Website**:** <https://nationalcareers.service.gov.uk/job-categories/construction-and-trades> | Oral questioning    **Worksheet 2** |
| 5–6  6 hours | 1. **Know the traditional skills used in construction and building services**   2.1 The main traditional skills used in construction and building services today | Activities   * Discuss the traditional skills used in construction and BSE, covering: * Marking out – measuring; calculating areas, volumes, linear. * Cutting – sheets, components (pipes, bricks, blocks, sheet materials). * Installing – fixing timber, masonry, electrical, plumbing components, sheet materials. * Finishing – plasters, floor screeds, tiling, painting, jointing and pointing (brick and stone).   Resources:   * **PowerPoint 3: Traditional skills used in the construction and building services** * **Worksheet 3: Know the trades in the construction and built environment sector** | **Worksheet 3** |
| 7–8  6 hours | 1. **Know the traditional skills used in construction and building services**   2.1 The main traditional skills used in construction and building services today | Activities:   * Deliver PowerPoint 3. * Discuss formulas to calculate linear metres. * Discuss formulas to calculate areas. * Discuss formulas to calculate volumes. * Watch the BBC Bitesize video and learners complete the tasks. * Discuss the rationale for using scales.   Resources:   * **PowerPoint 3: Traditional skills used in the construction and building services** * **Worksheet 4: Numeracy skills** * BBC Bitesize video – Functional skills: Construction: [www.bbc.co.uk/bitesize/topics/zkww7p3](http://www.bbc.co.uk/bitesize/topics/zkww7p3) * Worksheet 5: Working with scales * BBC Bitesize video –Working with scales: [www.bbc.co.uk/bitesize/guides/z2k9xfr/revision/2](http://www.bbc.co.uk/bitesize/guides/z2k9xfr/revision/2) | **Worksheet 4**  **Worksheet 5** |
| 9–10  6 hours | 1. **Know the traditional skills used in construction and building services**   2.2 Appropriate materials for use in traditional and historic buildings and structures | Activities:   * Facilitate classroom discussion. * Deliver PowerPoint 4. * Direct learners use the internet to see some examples of traditional Welsh buildings: [www.tywicentre.org.uk/media/1050/tywileaflet1-eng-final.pdf](http://www.tywicentre.org.uk/media/1050/tywileaflet1-eng-final.pdf)   Resources:   * **PowerPoint 4: Traditional building materials** * **Worksheet 6: Know modern construction materials** * Website: [www.tywicentre.org.uk/media/1050/tywileaflet1-eng-final.pdf](http://www.tywicentre.org.uk/media/1050/tywileaflet1-eng-final.pdf) * **Multiple choice questions** | **Worksheet 6**  Multiple choice questions |