Unit 230: Install plasterboard mechanically and by direct bond

# Delivery guide

Unit information

This unit is about interpreting information and adopting safe and healthy working practices. It covers selecting materials, components and equipment, as well as preparing and fixing plasterboard to timber and metal frames and solid masonry internal backgrounds.

Learners may be introduced to this unit by asking themselves questions such as:

* What does mechanical fixing mean when installing plasterboard?
* What is a perimeter seal?
* What is direct bond installation?
* What is a parge coat and why is it applied?

Learning outcomes

1. Understand resource selection
2. Understand working to a contract specification
3. Comply with the given contract information to carry out the work safely and efficiently to the required specification

Suggested resources

Textbook

Gashe, M. and Byrne, K. (2020) *The City & Guilds Textbook in Plastering for Levels 1 and 2 Diploma (6708) and Level 2 Technical Certificate (7908)*. London: Hodder Education.

ISBN 978-1-39830-647-9

Websites

* [British Gypsum | The White Book](https://www.british-gypsum.com/literature/white-book)
* [City & Guilds | Construction SmartScreen Factsheet Level 2 Technical Certificate in Plastering (7808-20)](https://www.cityandguilds.com/-/media/cityandguilds-site/documents/what-we-offer/centres/smartscreen/smartscreen-docs/7908-20-level-2-technical-certificate-in-plastering-pdf.ashx?la=en&hash=4242CFF99D985A7769335B23CCCB84852A3BB0EC)
* [HSE | Health and Safety at Work Act 1974: explained](https://www.hse-network.com/health-and-safety-at-work-act-1974-explained)
* [HSE | Work at Height: the law](https://www.hse.gov.uk/work-at-height/the-law.htm)
* [HSE | Work equipment machinery: PUWER](https://www.hse.gov.uk/work-equipment-machinery/puwer.htm)
* [Planning Portal | Building Regulations: Insulation and thermal elements: Roof](https://www.planningportal.co.uk/info/200130/common_projects/47/roof/6)

| **Learning outcomes** | **Criteria** | **Delivery guidance** |
| --- | --- | --- |
| 1. Understand resource selection | * 1. Characteristics of the resources | * Learners to understand how to interpret drawings, specifications, schedules, method statements and risk assessments. * Learners to be able to assess the condition of materials and components for suitability, compatibility and correct use. * Learners to be able to set aside inappropriate materials and components and report problems to the correct level of authority to mitigate and rectify problems that they may cause to work standards and schedules. * Learners to identify all performance plasterboards and their uses and fixing systems using mechanical fixings and direct bond installation. See: *British Gypsum White Book,* Ch3, p111and *City & Guilds Textbook in Plastering Level 1 Diploma (6708), Level 2 Diploma (6708) and Level 2 Technical Certificate (7908)*. * Learners to identify a range of manufacturers that produce plasterboard and plastering materials within specifications. * Learners to select, apply and finish various plastering systems to set standards outlined in the specification. * Learners to know how to check for quality and consistency of materials and components to ensure they are fit for use. * Learners to understand how to safely store materials from Manufacturers’ Technical Instructions (MTI) and ensure any damaged or defective materials are put to one side not for use. |
| * 1. Use of resources | * Learners to understand the resources and have the knowledge to use resources in line with the manufacturer’s instructions. * Learners to create small method statements to select different materials for various installation methods and procedures for timber, metal and masonry backgrounds using mechanical fixings and direct bond installation. * Learners to know the chain of command for reporting any problems arising in the preparation and installation of systems. * Learners to be able to read and understand MTIs and specifications to be able to select the correct resources. |
| * 1. Organisational procedures to select resources | * Learners to understand and be familiar with organisational documents such as drawings, specifications, schedules and MTIs. * Learners to review example documents and undertake training procedures to familiarise themselves with the use of the above resources. * Learners to have an awareness of how to ensure quality before, during and after applications when preparing and fixing to industry standard. * Learners to have knowledge of method statements to aid in the completion of tasks and selection of tools and resources. |
| * 1. Hazards | * Learners to complete small Risk Assessment Method Statements (RAMS) for a small project with tutor guidance and training. * Learners to know the hazards involved with plasterboard installation, including working at height, dusty environments, manual handling, use of power tools, etc. * Learners to understand what an induction process and toolbox talks are and how they advise on the use of Personal Protective Equipment (PPE) and their responsibility for reporting of accidents and near misses in conjunction with the Health and Safety at Work Act (HASAWA). * Learners to understand the chain of command and who to report to in the event of hazards, accidents or near misses. |
| 1. Understand working to a contract specification | * 1. Methods of work | * Learners to be familiar with a Gantt chart work programme for the installation of mechanically fixed and direct bond fixed systems contracts. * Learners to review example documents and undertake training procedures to familiarise themselves with the use of the above resources. * Learners to understand the difference between a method statement and a work programme and give examples. * Learners to know the effect of failing to meet programme deadlines and the effect it has on the contract and other trades. * Learners to understand failure to keep up with a work programme, what consequences this has on the client, contractor and associated trades. |
| * 1. Tools and equipment | * Learners to research and understand when Portable Appliance Testing (PAT) must be done for the safe use of electrical tools. See *City & Guilds Textbook in Plastering Level 1 Diploma (6708), Level 2 Diploma (6708) and Level 2 Technical Certificate (7908)*, p69. * Learners to have an awareness of the Provision and Use of Work Equipment Regulations (PUWER). * Learners to state what types of access equipment they must be aware of and understand how to use them safely while conforming to the Working at Height Regulations (WAH) 2005. * Learners to know how to understand a method statement and specification to assist in the correct selection of tools and equipment to complete tasks such as setting out dimensions and datums, preparing areas for services and access points and installing plasterboard to walls and ceilings with openings, beams and columns. * Learners to have knowledge of securely storing all tools and access equipment after use. * Learners to be able to read and understand methods of work to select resources for the preparation of backgrounds for mechanical fix and direct bond fix. |
| 1. Comply with the given contract information to carry out the work safely and efficiently to the required specification | * 1. Demonstration of work skills to measure, mark out, cut, apply, fit, finish, position and secure | * Learners to have practical training to measure, mark out, cut, install and finish mechanical fixing and direct bond fixing of plasterboard to allow for service boxes, window openings and ventilation openings. * Learners to understand drawings, specifications, schedules, MTIs and work programmes to achieve industry standards. * Learners to be able to create the above documents with tutor guidance for small projects. * Learners to have technical knowledge to be able to assess and check various backgrounds to receive mechanical and direct bond fixing systems. * Learners to have practical knowledge of transferring dimensions when fitting plasterboard to plain walls and ceilings, walls and ceilings with openings, stair walls, walls with pier returns, beams and independent piers and cutting out for services and electrical sockets. * Learners to research the purpose of a parge coat and how this reduces sound transmittance in party walls. |
| * 1. Use and maintain hand tools, portable power tools and ancillary equipment to install plasterboard to given working instructions of; cladding to timber and/or metal, and masonry forming openings with reveals | * Learners to demonstrate knowledge of use of hand tools, power tools and mechanical equipment. * Learners to carry out practical training on installation methods for mechanical and direct bond systems, including fireproofing, soundproofing and insulation installation complying with building regulations. * Learners to have practical training on fixing and forming mechanical and direct bond installation to timber, masonry, metal, reveals, heads, cills, beams and columns and piers. |