CONSTRUCTION AND BUILDING TECHNOLOGY Plastering and Drywall Systems

WorldSkills Occupational Standards



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WorldSkills Occupational Standards (WSOS)

Occupation description and WSOS

The name of the occupation is

Plastering and Drywall Systems

Description of the associated work role(s) or occupation(s)

The skilled plasterer may work on both internal and external plastering and rendering work. Much modern internal work is completed using drywall systems which involve the plasterer creating metal frames and installing plasterboard before the application on the final surface. These constructions can be complex and include curves and openings for doors and windows. Traditional plastering involves the preparation of the background prior to application of the plaster surface. The plasterer will prepare materials for use and be fully aware of legislation and official guidance relating to the preparation and use of materials. In addition to plastering flat surfaces, the skilled plasterer will create and install decorative mouldings. Plasterers will also be required to make repairs.

The plasterer may work on large construction sites for domestic, commercial or industrial use, in single domestic and commercial premises or on historic buildings and heritage sites. Much plastering work on larger sites is sub-contracted and as such many skilled plasterers will be self-employed, meaning that they have to take responsibility for tax and other earnings-related regulation.

A high degree of accuracy, care, and skill is required. Preparation for plastering work will include complex mathematical calculations. The practitioner needs to be able to read, interpret, and analyse complex specifications describing the work required and be able to convert these plans into reality.

A range of materials can be used depending on the site and the planned use of the finished building. Some materials can be harmful, so care must always be taken by the plasterer to prevent injury or damage in use or disposal of waste.

Plasterers often form part of a team, working efficiently, and effectively with other skilled craftsmen in a logical and well-planned manner.



General notes on the WSOS

The WSOS specifies the knowledge, understanding, and specific skills that underpin international best practice in technical and vocational performance. It should reflect a shared global understanding of what the associated work role(s) or occupation(s) represent for industry and business (www.worldskills.org/WSOS).

The skill competition is intended to reflect international best practice as described by the WSOS, and to the extent that it is able to. The Standard is therefore a guide to the required training and preparation for the skill competition.

In the skill competition the assessment of knowledge and understanding will take place through the assessment of performance. There will only be separate tests of knowledge and understanding where there is an overwhelming reason for these.

The Standard is divided into distinct sections with headings and reference numbers added.

Each section is assigned a percentage of the total marks to indicate its relative importance within the Standards. This is often referred to as the "weighting". The sum of all the percentage marks is 100. The weightings determine the distribution of marks within the Marking Scheme.

Through the Test Project, the Marking Scheme will assess only those skills that are set out in the Standards Specification. They will reflect the Standards as comprehensively as possible within the constraints of the skill competition.

The Marking Scheme will follow the allocation of marks within the Standards to the extent practically possible. A variation of up to five percent is allowed, provided that this does not distort the weightings assigned by the Standards.



WorldSkills Occupational Standards

Se	ction	Relative importance (%)
1	Work organization and management	5
	The individual needs to know and understand:	
	 Laws relating to hygiene, safety, and related to plastering and drywall systems 	

- Different types of personal protective equipment (PPE)
- Precautions for the safe use of power and cordless tools
- Building methods and construction technology
- Relevant areas of electricity, plumbing, drainage, and security systems
- Integrated entertainment systems
- Safe use, storage, and appropriate uses for materials
- The balance between economics and quality, dependent on the expected output and circumstances
- The need for security for the storage of tools and materials
- Methods of safe waste disposal and recycling
- Methods for establishing an optimal and economically organized construction site. regarding construction plan and equipment, organization and procedures, material management, staffing, and timelines
- Principles and methods for determine the correct calculations and estimates

The individual shall be able to:

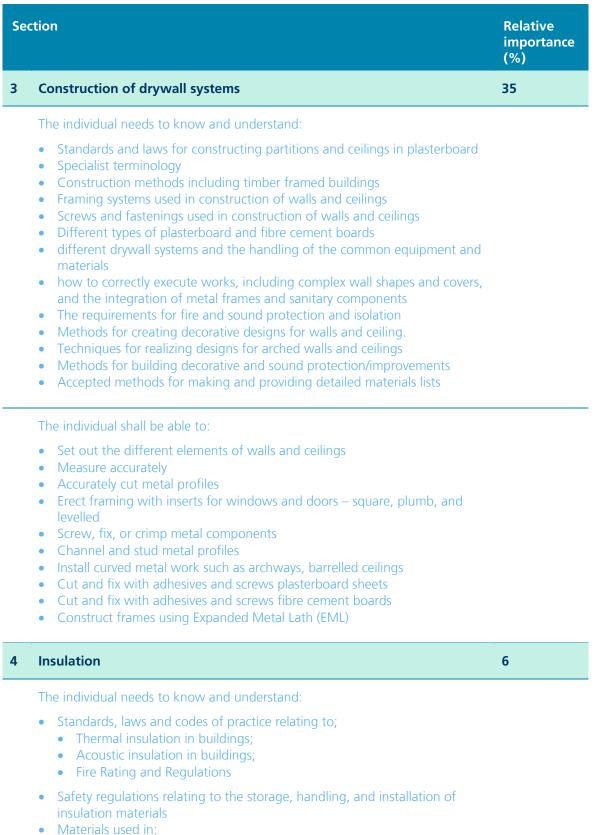
- Create and maintain safe and hygienic working environments
- Install work areas to avoid injury, especially to the back, elbows, shoulders, and knees
- Apply standards and laws relating to security, safety, and hygiene in plastering and drywall systems
- Use the appropriate personal protective equipment (PPE)
- Use correct power and cordless tools in a safe manner
- Store plasterboards and related products safely and securely
- Be proactive in own continuous professional development in order to keep abreast of methods of working in the construction industry and changing technologies, for example acoustics, sustainability, and environmental impact.
- Work effectively as part of teams
- Work effectively with other trades
- Take appropriate care of customers' fixtures, fittings, carpets, and belongings



Section Relative importance (%) 2 Plan and interpret plans/technical drawings 8 The individual needs to know and understand: The impact of buildings' use on the techniques and materials used Mathematics and geometry relevant to the occupation The required quality and standards such as the Q standard How to prioritize work and plan its order with other trades • Principles and methods for sourcing materials Stock control and rotation including the importance of use by dates Principles and methods of formal and informal communication Constructions drawings The creation and use of material lists and timetables The demands and specific properties and qualities of different building materials, such as organic and inorganic materials, coating materials, mounting materials, jointing and adhesive material How to choose the correct materials and document these. Primary elements such as floor, wall and ceiling systems, and storefronts Manufacturing guidelines for subgrade and other purposes How to choose efficient attachments, and the correct material for cement, wood and steel constructions The difference between dry and wet constructions How to fabricate ceiling elements to correlate with heat insulation systems, soundproofing and fire protection systems, and decorative aspects in the design of walls and ceilings Principles and methods of technical construction The relationship between the properties and characteristics of building materials and their impact on comfortable living spaces the variety of building materials, their chemical and physical processes, capillary action, porosity, diffusion, and condensation, as well as their implications for recycling. The individual shall be able to: Read and interpret documentation from a variety of sources • Interpret and work from different accepted specifications • Prepare specifications

- Provide advice and guidance to other professionals such as architects and quantity surveyors
- Read and interpret drawings and specifications
- Calculate materials in accordance with plans and specifications
- Keep essential notes on each installation process
- Explain complex specialist and technical information about installations to clients and other professionals
- Apply mathematic geometry principles to the calculation of angles, areas, perimeters, curves, arcs, volumes, ratios, etc.





- Thermal insulation in buildings;
- Acoustic insulation in buildings;
- Fire Rating and Regulations



Section

Relative importance (%)

- Appropriate use of materials used in;
 - Thermal insulation in buildings;
 - Acoustic insulation in buildings:
- Fire Rating and Regulations Impact of building regulations
- The influence of sustainability and environmental impact on insulation products and techniques
- Current and changing technologies and practices for insulation
- Principles and methods for choosing correct insulation systems for inner and outer constructions, depending on the setting.
- The equipment and machinery for working on joints, edges, corners, connections and finishing.

The individual shall be able to:

- Install and fix acoustic products
- Install and fix thermal products
- Install and fix fireproof material and other materials to prevent the spread of fire
- Use resilient material
- Test installations and modify accordingly.

5 Finishing of plasterboards

The individual needs to know and understand:

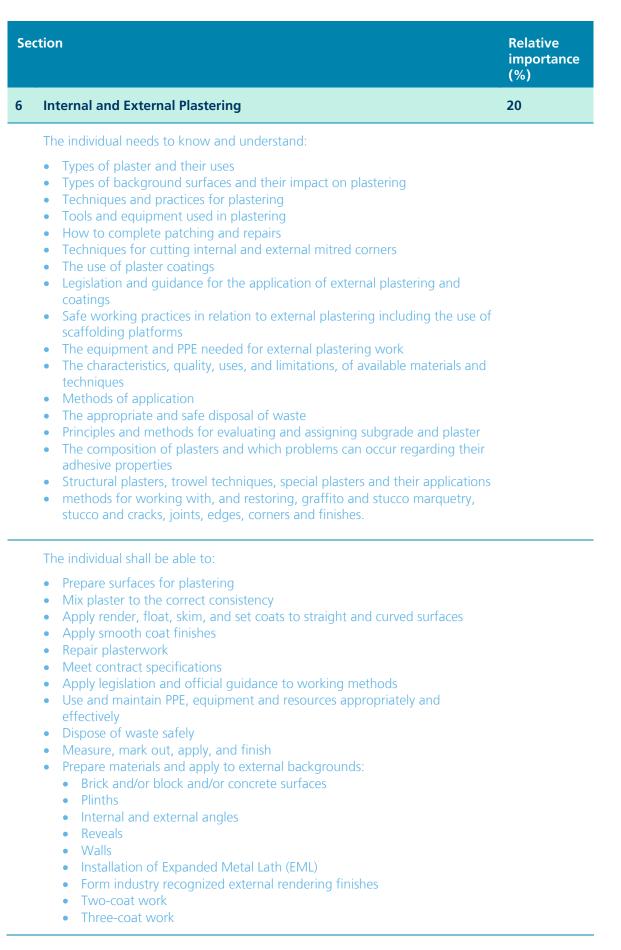
- Different methods of finishing plasterboards
- Materials and techniques used in finishing plasterboards
- The applicable standards for finishing, including the use of glass fibre and paper tape
- How to finish angles with sharp edges, metal angle beats, non-coat beats and all types of outside and inside corner beats

The individual shall be able to:

- Prepare plasterboards to receive finishes
- Cut beads and trims
- Mix plastering compounds
- Finish plasterboard joins manually by taping and jointing finishes
- Manually sand finished joints
- Apply full surface coatings
- Finish plasterboard using skim coats of Gypsum plaster

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Section

Relative importance (%)

- Internal and external angles
- Reveals
- Apply textured coated finishes.

7 Creation and fitting of decorative mouldings

8

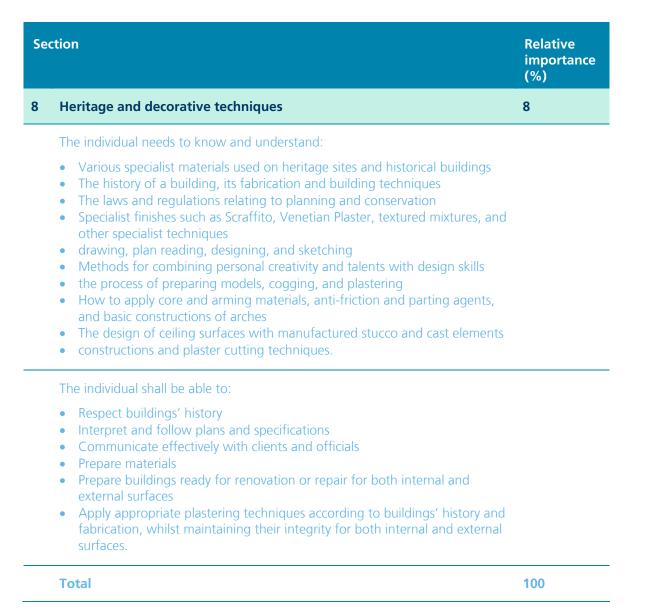
The individual needs to know and understand:

- Methods and principles for making decorative mouldings
- The range and use of decorative mouldings
- Specialist finishes such as Scraffito, Venetian Plaster, textured mixtures, and other specialist techniques
- Adhesives used in fitting decorative mouldings
- Methods for creating all types of mouldings.

The individual shall be able to:

- Listen to, interpret, and respect the opinion of customers
- Interpret proposed themes
- Cut products
- Create internal and external mitres
- Apply and stick decorative coatings
- Prepare and run in-situ moulds
- Measure and cut components
- Cut and fix paper-faced cornices
- Match, mitre and install cast ornamental cornices and panel mouldings including:
 - Moulds
 - Arches
 - Coving
 - Dado rails
 - Cornices
 - Skirting
 - Panel moulds
 - Ceiling roses
- Repair decorative mouldings.







References for industry consultation

WorldSkills is committed to ensuring that the WorldSkills Occupational Standards fully reflect the dynamism of internationally recognized best practice in industry and business. To do this WorldSkills approaches a number of organizations across the world that can offer feedback on the draft Description of the Associated Role and WorldSkills Occupational Standards on a two-yearly cycle.

In parallel to this, WSI consults three international occupational classifications and databases:

- ISCO-08: (http://www.ilo.org/public/english/bureau/stat/isco/isco08/) ILO 7123
- ESCO: (https://ec.europa.eu/esco/portal/home)
- O*NET OnLine (<u>www.onet</u>online.org/)

This WSOS appears most closely to relate to *Plasterers*: <u>http://data.europa.eu/esco/isco/C7123</u>

and Plasterers and *Stucco Masons*: <u>https://www.onetonline.org/link/summary/47-2161.00</u>

These links also enable adjacent occupations to be explored.

The following table indicates which organizations were approached and provided valuable feedback for the Description of the Associated Role and WorldSkills Occupational Standards in place for WorldSkills Shanghai 2022.

Organization	Contact name
Taiwan Society of Dry Wall System Construction; National Huwei Agricultural & Industrial Vocational Senior High School	Chih-Yen Wu, Director, Executive Director, Director of Educational Affairs Division