Lifelong Learning Programme

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Literacy and vocation

JOB PROFILE
(including literacy demands on the job)

CONSTRUCTION HELPER

EXAMPLE GERMANY

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PART I

Construction helpers
Overview of tasks and fields of activity

Construction helpers can be found on almost all construction sites performing a wide range of tasks and may work in a range of industry sectors.

Construction helpers clean and prepare construction sites. Helpers also work in the organisation of the construction site and work place.

They help to set up a site, maintain it, and eventually clear it at the end of the work. They transport and store materials, tools and machines, as well as auxiliary equipment and other implements used on site.

Construction helpers load and unload materials and maintain equipment. They erect and dismantle scaffolding (incl. auxiliary, work, support and portable scaffolds).

They assist with redevelopment work (removing and storing old fittings/materials, checking the condition of tools and equipment, clearing away rubbish and cleaning the workplace, carrying out chisel work (by hand or , and specifications with little or no supervision.

Fields of activity:

Organisation of the construction site and work place

Redevelopment work

Fabrication of plaster and flooring plaster

Walls and Brick constructions

Installing above-ground components

Renovation and maintenance work (windows and doors, painting, tiling)

by machine), pre-treating surfaces through cleaning, sanding, roughening and rust removal, finishing surfaces by cleaning, filling, smoothing and painting with primers/undercoats, removing old wall and floor coverings).

Construction helpers often help other craft workers, including carpenters, plasterers, operating engineers, masons, painters and drywall installers.

Construction helpers often work as part of a team with other skilled craft workers, jointly carrying out assigned construction tasks. At other times, construction helpers may work alone, reading and interpreting instructions, plans

Field of activity: **Organisation of the construction site and work place**	
Helping to set up a site, maintain it, and eventually clear it at the end of the work	**Establishment and maintenance of orderliness and cleanliness in work and site areas**
▪ Clearing an area for the site ▪ Staking out the area ▪ Clearing and levelling of the terrain and access routes ▪ Surfacing and concreting of the terrain and access routes ▪ Clearing the site facilities after completing the job and preparing to transport the equipment to other sites	▪ Waste separation ▪ Cleaning of the site (accommodation, storage areas, access routes)
Transport and storage of materials, tools and machines, as well as auxiliary equipment and other implements used on site	**Setting up and maintaining traffic routes**
▪ Loading and unloading materials (wheelbarrows, stacker trucks, lorries) ▪ Transport on site (by hand, with buckets and with trolleys) ▪ Proper storage ▪ Maintenance of equipment	▪ Marking out the areas to be fenced off and the position of the uprights ▪ Setting up the barriers/fencing according to the instructions ▪ Dismantling the barriers/fencing and sorting the reusable components ▪ Transportation and storage of the reusable components ▪ Installation of lighting ▪ Maintenance
Erecting and dismantling scaffolding (incl. auxiliary, work, support and portable scaffolds)	**Maintenance of tools, equipment and machines**
▪ Preparation of transportation and storage ▪ Assisting with the erection and dismantling of scaffolds	▪ Maintenance of tools, equipment and machines ▪ Carrying out maintenance work according to instructions
Protection of surfaces and objects not being worked on, through partial or complete covering	**Operating transportation and conveyor equipment**
▪ Transportation of coverings and protective packaging/foils from the place of storage to required destination ▪ Measuring and cutting of the coverings and protective packaging/foils according to the given dimensions ▪ Covering of the surfaces to be protected ▪ Usage of correct adhesive tapes and the secure fastening of the covering	▪ Operating machines and equipment used for the conveying and transportation of materials on site (e.g. concrete mixer trucks, lifts, conveyor belts) according to instructions and technical and safety specifications ▪ Operating cranes (balancing loads; hooking and unhooking materials) ▪ Systems for shutting down the equipment ▪ Communication with the crane operator (signals, hand signs, radio)

Field of activity: **Redevelopment work**	
Removing and storing old fittings/materials (masonry, stairs, windows)	**Removing old wall and floor coverings**
▪ Assisting with redevelopment work ▪ Getting to know the tools and equipment required for chiselling work ▪ Checking the condition of tools and equipment ▪ Marking out the intended chisel work and looking for hidden fittings ▪ Clearing away rubbish and cleaning the workplace ▪ Separating rubbish and waste	▪ Removing timber, paper (wallpaper), plastic and metal, using tools and equipment correctly ▪ Sorting and storing waste materials
Carrying out chisel work (by hand or by machine)	**Applying waterproofing and timber protection agents**
▪ Carrying out chisel work according to Health and Safety specifications (using personal protective equipment)	▪ Transporting materials to the work site ▪ Cleaning surfaces prior to applying the agents ▪ Roughening surfaces prior to applying the agents ▪ Assisting with the application of the agents according to the instructions and technical specifications ▪ Preparing tools and materials for the application of timber protection agents (protecting the timber from damp) ▪ Preparing timber surfaces for the application of waterproofing agents ▪ Assisting with applying waterproofing agents to timber surfaces according to technical specifications ▪ Following Health and Safety regulations exactly
Pre-treating surfaces through cleaning, sanding, roughening and rust removal	
▪ Learning to handle tools (e.g. for work on walls, ceilings, floors and windows) ▪ Using personal protection gear	
Finishing surfaces by cleaning, filling, smoothing and painting with primers/undercoats	
▪ Getting used to tools and equipment needed for surface finishes: for filling, puttying, smoothing and undercoating ▪ Preparation of building materials and tools ▪ Application of materials (e.g. using smoothing implements, putty, primers) ▪ Working only under supervision and according to instructions	

Field of activity: **Fabrication of plaster and flooring plaster**	Field of activity: **Walls and Brick constructions**
Preparing the under-surface (securing the plaster mesh)	**Preparing materials on the work site**
▪ Preparing the tools ▪ Cleaning the surface, removing dirt, oil and old plasterwork ▪ Dampening the surface ▪ Using meshes (made from, for example, wires, strips or tubes)	▪ Preparing the required tools, equipment and materials (e.g. water, mortar, bricks) under the guidance of a qualified employee
Spraying on a plaster coat by hand	**Carrying out preliminary work for masonry construction (recommendations)**
▪ Preparing the tools and materials ▪ Spraying a plaster coat onto the surface (e.g. walls, ceiling, posts)	▪ Setting out the materials close to work place ▪ Recommending materials ▪ Supplying materials and tools ▪ Carrying out the construction of a wall under supervision (e.g. measuring, using plumb-lines)
Applying a single layer of plaster (finishing)	**Clearing up the workplace**
▪ Cleaning and wetting the surfaces ▪ Applying mortar and rubbing the surfaces flat ▪ Finishing and carrying out further treatments	▪ Cleaning the tools ▪ Collecting, moving and storing the unused materials (e.g. bricks) ▪ Cleaning the workplace
Applying and compressing flooring plaster	
▪ Cleaning and wetting the flooring surfaces ▪ Filling in the flooring plaster ▪ Applying the mortar ▪ Flattening the surface with straight edge ▪ Compressing the flooring plaster	
Cleaning the surfaces	
▪ Removing the superfluous mortar and other materials ▪ Cleaning the plastered surfaces and access gangways	

Field of activity: **Walls and Brick constructions**	Field of activity: **Installing above-ground components**
Preparing materials on the work site	**Constructing and supporting upright walls**
▪ Preparing the required tools, equipment and materials (e.g. water, mortar, bricks) under the guidance of a qualified employee	▪ Preparing tools and other equipment ▪ Using tools for measuring and marking wood and metal (e.g. folding rules, measuring tapes, rulers, micrometers, squares, circular protractors, marking needles, centre punches) ▪ Improving knowledge of the materials used ▪ Preparing the pieces to be worked on for measurement and marking ▪ Supply of materials (shape profiles, clamps, screws, dowels) ▪ Measuring and cutting shape profiles ▪ Measuring and marking according to plans or under supervision ▪ Installing and reinforcing shape profiles for support scaffoldings under supervision ▪ Installation of ironmongery components (e.g. holding devices, brackets)
Carrying out preliminary work for masonry construction	
▪ Setting out the materials close to work place ▪ Recommending materials ▪ Supplying materials and tools ▪ Carrying out the construction of a wall (e.g. measuring, using plumb-lines)	
Clearing up the workplace	**Mounting plasterboard and fibreboard components to walls**
▪ Cleaning the tools ▪ Collecting, moving and storing the unused materials (e.g. bricks) ▪ Cleaning the workplace	▪ Using tools, machinery and equipment for working with wood (saws, chisels, files, drills, circular saws, grinders) and for working with metal (handsaws and electric saws, shears/tin snips, presses, chisels, files, grinders) ▪ Learning about technology and techniques for working with metal and wood: cutting (by hand or machine) according to technical specifications and only under guidance ▪ Supplying boards according to orders/requests ▪ Marking and cutting boards according to given dimensions and specifications or instructions ▪ Mounting and fixing of the boards (under supervision only) ▪ Filling; Smoothing and sanding; Finishing
	Installation/assembly of completed components
	▪ Learning different methods of joining wood or metals ▪ Using the correct tools, machinery and materials for joining ▪ Assembling parts/components by using nails and screws ▪ Joining parts/components through the use of screws, wedges, rivets and welding (welding certificate(s) necessary) ▪ Checking of joints and pipe installations ▪ Installing sanitary appliances

Field of activity: **Installing above-ground components**	
Constructing and supporting upright walls	**Installation/assembly of completed components**
▪ Preparing tools and other equipment ▪ Using tools for measuring and marking wood and metal (e.g. folding rules, measuring tapes, rulers, micrometers, squares, circular protractors, marking needles, centre punches) ▪ Improving knowledge of the materials used ▪ Preparing the pieces to be worked on for measurement and marking ▪ Supply of materials (shape profiles, clamps, screws, dowels) ▪ Measuring and cutting shape profiles ▪ Measuring and marking according to plans or under supervision ▪ Installing and reinforcing shape profiles for support scaffoldings under supervision ▪ Installation of ironmongery components and parts (e.g. holding devices, brackets)	▪ Learning different methods of joining wood or metals ▪ Using the correct tools, machinery and materials for joining ▪ Assembling parts/components by using nails and screws ▪ Joining parts/components through the use of screws, wedges, rivets and welding (welding certificate(s) necessary) ▪ Checking of joints and pipe installations ▪ Installing sanitary appliances
Mounting plasterboard and fibreboard components to walls	
▪ Using tools, machinery and equipment for working with wood (saws, chisels, files, drills, circular saws, grinders) and for working with metal (handsaws and electric saws, shears/tin snips, presses, chisels, files, grinders) ▪ Learning about technology and techniques for working with metal and wood: cutting (by hand or machine) according to technical specifications and only under guidance ▪ Supplying boards according to orders/requests ▪ Marking and cutting boards according to given dimensions and specifications or instructions ▪ Mounting and fixing of the boards (under supervision only) ▪ Filling; Smoothing and sanding; Finishing	

Field of activity: **Renovation and maintenance work (painting, tiling)**
Paint work
▪ Removing wall coverings (wallpaper) and old layers of paint ▪ Using paint strippers and/or blow torches or heat guns on window frames or door surfaces ▪ Removing old floor coverings (carpets, PVC flooring, linoleum) ▪ Applying a base coat ▪ Applying priming coats (under supervision) ▪ Stirring/mixing paste ▪ Cutting wallpaper to length and applying the paste ▪ Hanging the wallpaper (under supervision) ▪ Stirring paints ▪ Applying a final coat (under supervision) ▪ Cleaning tools and buckets
Tiling work
▪ Checking the surface to be tiled and applying an adhesive base coat if necessary ▪ Stirring the tiling adhesive ▪ Stacking the tiles about to be laid in an orderly fashion and helping to pass them to the tile layer ▪ Chiselling out single damaged tiles under supervision ▪ Replace single damaged tiles with new ones ▪ Cleaning the tools

PART II

The definition of the job profile COSTRUCTION HELPER in "Literacy and Vocation" is based on the European project BASICON (European Building Essentials) in which 26 institutions from 11 countries were involved (www.basicon.org)

The European partnership BASICON agreed basic skills for Construction helpers crucial for employability across the European building sector. These basic skills have been filtered out of each country's own specific nationally-defined vocational requirements for the given qualification, and describe the key skills needed for working in the building sector across the whole of Europe.

In the process of determining the national vocational requirements and the corresponding areas of mutual convergence and agreement were involved a high range of organisations (training organisations, chambers, national institutes for vocational training, regional and national employment agencies, employer organizations).

Although the vocational training situation initially appeared to be very different in each of the countries involved in the project, the degree of agreement that was reached with regard to necessary European-wide basic qualification was astonishingly high.

The most important goals of the BASICON project were:

- To focus not on the differences in the national vocational profiles
- To allow access to the (European) labour market, through developing an adequate vocational training programme that corresponds to the needs of employers
- To simplify existing methods of certification, making them not only more realistic and relevant, but also transparent, transferable and easily comparable at a European level
- To lay a future-orientated foundation for standards expected in vocational training at a European level
- To establish language training, computer skills and 'learning to learn' as being key areas within a qualifications course – on the one hand to further mobility within the European labour market and on the other hand to strengthen the employability of disadvantaged individuals and migrants in the relevant national labour markets.

PART III

Construction helpers
Overview Literacy on the job

Literacy on the job: READING		
VERY FREQUENTLY	**FREQUENTLY**	**FROM TIME TO TIME**
Health and safety signage Warning signs in the construction site Construction drawings (foundation plan, outline, floor plans, vertical cut, details) Construction site time schedule and the weekly work plan Lists of tools and equipment required for tasks Road maps	Health and safety information sheets Personal hygiene rules (clothing, shoes, bodycare, availability and use of skin protective agents) Safety rules and regulations in regard to handling electrical implements (equipment, mains cables) Technical information (plans, drawings, reports, descriptions, manufacturers' installation instructions) Concrete recipes	Important clauses of the employment contract Working regime of the company: e.g. working hours, place of work, job function, holidays, sickness-/accident reporting General accident prevention rules and regulations (rights and duties of the employer and the employee) General rules of environmental protection Specification by the architect or client Storage regulations for construction materials and excavated earth

Literacy on the job: WRITING		
VERY FREQUENTLY	**FREQUENTLY**	**FROM TIME TO TIME**
Documentation of the results of work (diary of work completed) Fill out timesheets and leave forms Writing detailed lists of all the equipment and tools they will be needed to complete a job Writing of materials list Writing notes for foreman to explain what have been done, leave instructions	Produce a sketch with explanations for the construction site installations Inspection of construction site installations on the basis of the check list and compilation of construction site information Compile and update stock lists and inventories	Record registering, reporting and assessment of injuries Documentation of the results of work as reference for follow-on work (location of pipes, base of roadways etc.) Log recipes for produced concrete mixtures

Literacy on the job: SPEAKING AND LISTENING		
VERY FREQUENTLY	**REQUENTLY**	**FROM TIME TO TIME**
Talk to other colleagues to coordinate the work Communicate on work issues to co-workers Listen and respond to verbal instructions and explanations from the supervisor Ask clarifying questions to check the information given Report the progress made on the work Communicate and coordinate with other trades people working on the same site Reporting and correcting inconsistencies and defects	Order supplies or equipment from suppliers (face-to-face and over the phone) Participate in team meetings Report to manager about anything affecting the job process Request assistance from others Listening technical information (reports, descriptions using plans and drawings) Listening to servicing and maintenance rules	Discuss problems with a working plan with supervisor or other co-workers Safety precautions: mention the rules and inform others

Literacy on the job: NUMERACY		
VERY FREQUENTLY	**FREQUENTLY**	**FROM TIME TO TIME**
Make accurate measurements Cut materials in a way that produces as little waste as possible Check the temperatures Measure rooms Surface area calculation of tarpaulins, collection points, roofing etc. Measuring and cutting covers and protective sheets according to measurements indicated Calculation of material requirements for individual work (e.g. mortar, cement, lime, timber, paint) Circumference calculations for triangular or rectangular construction sites, fences etc. Calculate wall lengths, wall heights, joint widths Material calculations for walls (number of bricks required)	Estimate the time needed to carry out a job Measure spacings and cut outs Calculate costs of material Calculation of working hours, hourly wage, overtime Percentage calculation; mixing ratios Conversion (formula) of full-scale dimensions into actual values	Calculate weights when loading vehicles Measure angles in rooms Wage calculation procedure Volume calculation of excavations, collection pits, trenches, basements etc. Draw sketch with dimensions

Literacy on the job: CRITICAL THINKING		
VERY FREQUENTLY	**FREQUENTLY**	**FROM TIME TO TIME**
Choose the best and most efficient order to complete a job Choose the correct method and tools to use to complete a building task To do a job by yourselve or need help from others Inspect results of work check if work meets with the standards	Deal with changes to work plans Discuss and agree on changes to the plan Identify if changes need to be referred to co-workers and supervisors Identify problems and develop solutions Inspect and evaluate results of work: Determine errors and record inspection results; compile daily work report (for self-assessment); consider work sequences and illustrate improvements; final calculation of material quantities and dimensions	Deal with unexpected issues and emergency situations Deal with contingencies e.g. problems with tools or equipment, injury or accident

Literacy on the job: INFORMATION COMMUNICATION TECHNOLOGY		
VERY FREQUENTLY	**FREQUENTLY**	**FROM TIME TO TIME**
--	Use of surveying instruments Using computer as aid to storekeeping	Use GPS based tracking and navigation technology in the vans Use the internet to look up sources e.g. manufacturer or supplier information, road maps Surveying instruments:, knowing function of the equipment Surveying instruments: Surveying methods, scaling and conversion of scaled down dimensions

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Further information:

www.literacy-and-vocation.eu

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