

Qualification Information:	Qualification Title	Skills Programme ID	NQF Level		Credits	
Curriculum Code:	Skills Programme: Domestic Water & Drainage Pipe Repairer	SP-191201	03		49	
Knowledge Component			Notional Hours	Implementation Schedule (8 Hourly)	Assessment Schedule	Training Venues
642601-000-00- SP01-KM-01,	Basic Plumbing Health and Safety, NQF level 2, Cr 1.	10 Hours	3 Days	1 day	Main Campus	
642601-000-00- SP01-KM-02,	Tools, Equipment and Components, NQF level 3, Cr 3.	30 Hours	3 Days	1 day	Main Campus	
642601-000-00SP01-KM-03,	Theory of Water and Drainage, NQF level 3, Cr 1	10 Hours	4 Days	1 day	Main Campus	
642601-000-00SP01-KM-04,	Above and Below Ground Drainage, NQF level 2, Cr 3.	30 Hours	3 Days	1 day	Main Campus	
642601-000-00SP01- KM-05,	Terminal Fittings, NQF level 4, Cr 2.	20 Hours	3 Days	1 day	Main Campus	
642601-000-00- SP01-KM-06,	Hot and Cold-Water Pipe Fittings, NQF level 4, Cr 12.	120 Hours	12 Days	1 day	Main Campus	
Practical Component			(8- Hourly Training sessions)			
642601-000-00- SP01-PM-01,	Repair, Replace and Maintain Above Ground Soil Waste and Vent Drains and Pipes, NQF level 3, Cr 7.	70 hours	9 Days	1 day	Plumbing Workshop	
642601-000-00SP01- PM-02,	Maintain Below Ground Drainage Pipes, NQF level 3, Cr 10.	100 hours	12 Days	1 day	Plumbing Workshop	
642601-000-00SP01- PM-03,	Maintain and Repair Cold Water and Hot Water Pipes and Terminal Fittings, NQF level 3, Cr 10.	100 hours	12 Days	1 day	Plumbing Workshop	

## General Information

### Skills Programme Rationale

This skills programme prepares a learner to operate as a Domestic Water and Drainage Pipe Repairer.

The qualifying learner will be able to repair and maintain, domestic water pipes, drain pipes, and sanitary drainage pipes and terminal fittings in domestic installations

### Purpose

The purpose of this skills programme is to prepare a learner to operate as a Domestic Water and Drainage Pipe Repairer.

A Domestic Water and Drainage Pipe Repairer repairs and maintains, domestic water pipes, drainpipes, and sanitary drainage pipes and terminal fittings in rural areas, townships and residential areas

### Minimum entry requirements

NQF Level 1

### Continuous Assessment

- Discuss the principle of sanitation and waste water treatment, and types of water.
- Identify and explain the stages of waste water treatment and its relationship to the avoidance of disease.
- Discuss the diseases caused by poor sanitation.
- List and explain the tools used for: measuring; cutting; excavating and compacting.
- Discuss the different types of drain cleaning equipment and mention which piece of equipment would be suitable for which type of job.

- Explain how drain rods would be used.
- Explain what drain cleaning equipment would be used in the absence of “inspection eyes”.
- To replace a 1m length of copper pipe in the bathroom wall: list which tools you would need; and explain how to use them.
- Discuss the basics of tool maintenance.  
Define the term 'drain'.
- List and explain the basic components of drainage systems.
- Explain the water cycle.
- Describe and discuss the physical states of water, referring to its density expansion and contraction.
- Discuss the importance of depth of seal.  
Explain the function of venting.
- Discuss the characteristics and types of waste water and water.
- Identify the different codes of practice and explain their characteristics.
- Explain the methods of joining above ground drainage pipes.
- Discuss the importance of flexible joints in bends and junctions.
- Explain the criteria for the installation of vent valves.
- Explain how expansion and contraction affects pipe bracketing.
- Discuss the process of excavation and the laying

of pipes and fittings.

- Compare joining a twin wall pipe with a socket, and with a rubber ring.
- Discuss the cutting and joining of: earthenware pipes; and of cast iron pipes.
- Explain why all bends and junctions must have a flexible joint.
- Define water flow and discuss how: pipe friction; velocity; backflow; water pressure; and weight and volume of water; affect it.
- List, describe, and explain the function of the different types of valves.
- Define a tap and describe the different types.
- Explain GMS and how to join GMS pipe and fittings.
- List and describe the plastics commonly used in the Plumbing Industry; and where you would use HDPE piping.
- Explain the methods of joining HDPE piping.
- List and explain the two categories of polymer piping.
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- Discuss the three most common methods of joining pressure water pipes.
- Explain – step by step – how to solder copper pipes.
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- Explain how GMS piping is joined together.
- Explain the mechanical compression fitting method for joining HDPE pipes and fittings.
- Discuss measures to protect pipes from temperature change.
- Discuss the laying of pressure water pipes: underground; above ground; under wall and under

surface beds; in or through floors, concrete slabs or walls.

- Explain how copper and galvanized pipes are replaced.

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### **Supervised Assessment**

- ☐ The techniques, methods, sequencing and procedures are implemented to maintain and repair above and below ground drainage pipes. (This may include, but are not limited to taps, cisterns, water pipes, valves and isolating valves, baths, bidets, washbasins and sinks).
- ☐ The techniques, methods, sequencing and procedures are implemented to maintain and repair terminal fittings.
- The techniques, methods, sequencing and procedures are implemented to maintain and repair water pipes in domestic installations

### **Course Requirements:**

- Study Material / Log Book

### **Work Opportunities/further learning**

The qualifying learner will be able to gain employment by offering plumbing hand services assisting qualified plumbers,

Qualifying learners may also gain access to further learning opportunities in the career path to achieve the full Plumber trade qualification at NQF Level 4.

### **Fees**

- Registration Fees: **R1000**
- Deposit fees: **R3000**
- Total Fees: : **R18,500**

**Duration:** 61 Days

## **Skills Programmes**

There is no **EISA** for skills programmes. Instead, the skills programme document gives the specifications for a **Final Integrated Supervised Assessment (FISA)** instrument that learners will need to complete. The SDP is responsible for setting and moderating the **FISA**.

The SDP needs to submit skills programme results to the QCTO within 21 days.

The assessment and moderation process must still be quality assured by the QCTO before the learners can be certificated. The Assessment team samples learners and looks at the tool and moderation reports.

## **FISA**

A decentralised **Final Supervised Assessment** takes place for historically registered qualifications (in addition to the current PoE practice), as well as for **QCTO** Skills Programmes.

## **CERTIFICATION**

SDPs are not allowed to print their own certificates for occupational qualifications. Certificates are issued by the QCTO's secure CVS certification system.