



BASIC SKILLS IN PLUMBING



*Foundation Programme in Literacy,
Numeracy and Skills (FPLNS)*



Mauritius Institute of Education
under the aegis of
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Panel

Dr Ajay Ramful

Head Curriculum Implementation,
Textbook Development and Evaluation

FPLNS | PLUMBING PANEL

Mr Ismut Belath

Panel Coordinator, Lecturer, MIE

Mr Boodhun Souridev

MITD Instructor

Mr Nundraj Goindo

Secondary School Educator

Mr Elahee Doomun Zarraan

Secondary School Educator

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CONCEPTUALISATION & DESIGN

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UNIT 1 - Introduction to plumbing



Overview

Water is essential for life. Water supply is important for drinking, cooking, washing, personal hygiene, irrigation and cleaning. Plumbing involves the installation and maintenance of piping system to ensure the efficient delivery and control of water for those in need. A plumber is a professional who installs, connects, repairs and fixes pipes and control systems. This elective provides students with basic knowledge and skills for a domestic water supply system. Through this elective student will develop competencies to safely manipulate basic plumbing tools and equipment to realise a project work on a simple residential pipe work.



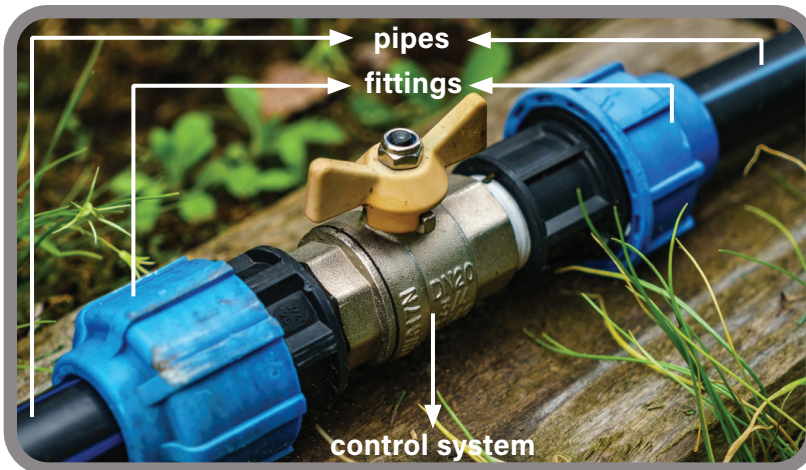
Objective of the elective

- recognise the importance of plumbing in our daily life.
- understand and apply safety and health protocols for plumbing work.
- identify basic plumbing tools and equipment, including their functions and safe practices.
- recognise basic plumbing pipes, fittings, materials and control systems of a domestic water supply.
- distinguish various components of polythene or polypipe fitting.
- manipulate safely basic plumbing tools and equipment.
- develop competencies to measure, cut and connect polythene or polypipes.
- understand potential career opportunities in the plumbing trade.
- design and realise a prototype for part of a domestic piping system.



Introduction

Plumbing is a working system of **pipes, fittings**, and **control system** that help us obtain clean water in our **home**.





1.3 Distribution of water in Mauritius

The water is carried through pipes from the reservoir. The Central Water Authority (CWA) is the authority who is responsible for treatment, distribution and control of water supply in Mauritius. The diagram below provides an overview of how potable water is distributed in Mauritius.

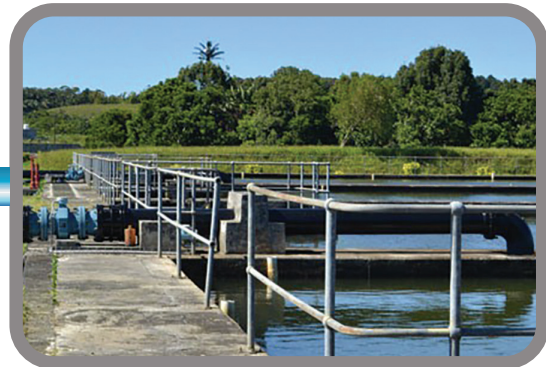
Rain water is collected in various reservoirs. The collected water is pumped and sent to treatment plants through water pipes.



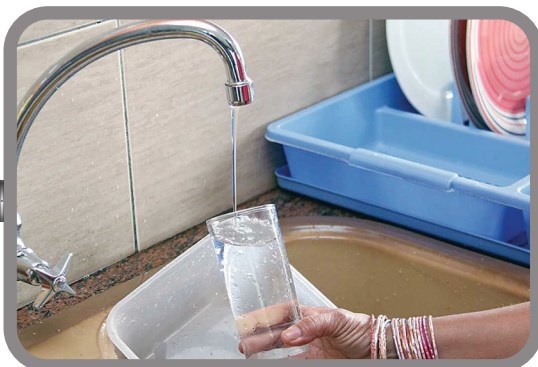
A metre is used to monitor the amount of water consumed



In filter plants, the water is filtered to eliminate all microorganisms



Potable water is obtained in homes for drinking, food preparation and for other purposes





1.4 Plumbing systems in our houses

Different pipes, fitting and control system are used to distribute water in our house. Figure 2 shows some everyday life applications where plumbing systems are used in our home and their respective importance.

in kitchen



in bathroom



in lavatories



**Domestic
Plumbing systems
in our everyday life**



in gardens



in toilets



in washing machine

Activity: Poster on plumbing system in my environment

Collect some pictures or photos showing plumbing systems being used in your living environment. The title of the A2 poster is '**Plumbing in my environment**'

UNIT 2 - PPE and safe practices



2.0 Introduction

Safety plays an important role in any field, including plumbing. Plumbing is essential in our daily lives. It involves working with different tools, fittings, pipes, control systems and equipment. In this part, you will learn about basic Personal Protective Equipment (PPE) and safe practices related to plumbing.



2.1 Personal Protective Equipment (PPE) for plumbing

Plumbers should wear:

Safety cap



To protect the head

Safety gloves with rubber grips



**To protect hands from sharp objects, and
for handling pipes and fittings**

Safety glasses



To protect the eyes from dust and debris

Over coat



To protect clothing and body

Protective shoes



To protect the feet



2.2 Safe practices

It is essential to be aware of safe practices while using any plumbing tools and equipment.



Note to educators

It is important to develop the proper attitude towards safe practices before using any tools and equipment. You must ensure that each safe practice is properly explained, demonstrated and followed.

The grid shows some basic safe practices related to plumbing.



Use the right tool for the right job.



Ensure that each tool or equipment is in good working condition.



Always clean each tool and equipment after use.



Ensure your hands are dry before using any power tool.



Ensure that tools and equipment fit properly before use.



Note to educators

You are required to ask your students to watch a plumber at work and notice the safety measures observed.

UNIT 3 -