



DELTA STATE JOB AND WEALTH CREATION BUREAU

Governor's Office, Asaba.

PLUMBING TRAINING MANUAL

DURATION OF THE TRAINING: 6 MONTHS

WEEK	DAY	TASK	ACTIVITIES (SPECIFIC ACTIONS)	METHOD
1	1	Introduction to plumbing	The instructor will introduce the trainees to plumbing.	Instruction
	2-3	Identification of plumbing materials	The instructor will teach the trainees to identify plumbing materials.	Instruction & practice
	4	Use of plumbing tools	The instructor will teach the trainees how to use plumbing tools.	Practice
	5	Identification of specific equipment (cutting machine, drilling and chiseling machine)	The instructor will teach the trainees how to identify specific equipment (cutting machine, drilling machine and chisel).	Instruction & practice
2	1	How to use material	The instructor will teach the trainees how to use materials in plumbing.	Practice
	2	How to handle tools like chisel and hammer	The instructor will teach the trainees how to handle the working equipment.	Practice
	3	How to use hand tools like chisel and hammer	The instructor will teach the trainees how to handle/use hand held tools.	Practice
	4-5	How to use electric powered equipment	The instructor will teach the trainees how to use electric powered equipment.	Practice

3	1	Handling and positioning equipment	The instructor will teach the trainees how to position when using equipment.	Practice
	2	Marking of wall for chiseling	The instructor will teach the trainees how to mark walls for chiseling.	Instruction & practice
	3	Cracking of walls	The instructor will teach the trainees how to crack walls for piping.	Instruction & practice
	4	Measurement	The instructor will teach the trainees how to take measurements in inches, feet and meters.	Instruction & practice
	5		The instructor will teach the trainees how to measure areas of wall for cracking.	Instruction & practice
4	1-2	Importance and use of plum and trowel in plumbing	The instructor will teach the trainees the importance and use of plum as well as trowel in plumbing.	Instruction/ Practice
	3	Cutting of pipes	The instructor will teach the trainees how to use hand-saw for cutting pipes.	Instruction & practice
	4	Piping	The instructor will teach the trainees how to use particular types of materials for piping.	Instruction
	5	Piping	The instructor will teach the trainees how to join pipes.	Instruction & practice
5	1	Heating of pipes	The instructor will teach the trainees how to melt pipes in order to form socket.	Instruction & practice
	2	Filing of pipes	The instructor will teach the trainees on filing of pipes.	Instruction & practice
	3-5	Piping	The instructor will teach the trainees how to cut & join pipes.	Practice
6	1-2	Plastering of cracked areas	The instructor will teach the trainee how to fill cracked areas with stone and plaster.	Instruction & practice
			The instructor will teach the trainees how to handle trowel and how to plaster the cracked portion.	Instruction & practice
	3	Piping	The instructor will teach the trainees how to position cold and hot pipe during piping	Instruction & practice
	4	Piping	The instructor will teach the trainees how to identify the right pipe to use in running the cold and hot line	Instruction & practice

	5	Piping	The instructor will teach the trainee how to do copper piping and identify the accessory to use	Instruction & practice
7	1	Digging	The instructor will teach the trainee how to dig for laying pipe network	Instruction & practice
	2	Plumbing and laying	The instructor will teach the trainee how to dig for laying soil pipe	Practice
	3	Plumbing and laying	The instructor will teach the trainee how to use plum inlaying soil pipe in diagonal or slanting form	Practice
	4	Covering of the open areas	The instructor will teach the trainee how to cover the pipes	Practice
	5	Piping	The instructor will teach the trainee how to pipe, using copper for pipe connection of central heater	Instruction & practice
8	1	Installation of fittings	The instructor will teach the trainee how to position hand water heater on hollow blocks	Instruction & practice
	2	Studying the plan	The instructor will teach the trainee how to study and interpret a building plan	Instruction
	3			Practice
	4			Practice
5	Measurement	The instructor will teach the trainee how to measure the building	Instruction & practice	
9	1	Piping	The instructor will teach the trainee how to start piping from foundation	Instruction & practice
	2	Studying of drawings	The instructor will teach the trainee how to study and interpret mechanical drawings	Instruction
	3			Practice
	4			Instruction & practice
5	Installation of fittings	The instructor will teach the trainee how to connect water closet, shower, cubicle and Jacuzzi after tiling	Instruction & practice	
10	1	Installation of fittings	The instructor will teach the trainee how connect water closet/basin using fresher (W/C bolt and basin bolt) by drilling.	Instruction & practice
	2	Installation of fittings	The instructor will teach the trainee how to connect shower cubicle using drilling machine and silicon gum	Instruction & practice
	3	Installation of fittings	The instructor will teach the trainee how to connect shower tray by filling with mixed cement	Instruction & practice
	4	Drilling of walls with drilling machine	The instructor will teach the trainee how to use drilling machine in fixing fittings	Instruction & practice

	5	Installation fittings	The instructor will teach the trainee how to connect conduit mixer; two, three and four ways mixer	Instruction & practice
11	1	Stop cock	The instructor will teach the trainee how to use stop cork for hot & cold pipe installation	Instruction & practice
	2	Installation of fittings	The instructor will teach the trainee how to connect washing machine (manual and automatic)	Instruction & practice
	3			Instruction & practice
	4	Connections	The instructor will teach the trainee how to connect washing machine to water heater	Instruction & practice
	5	Unblocking water closet	The instructor will teach the trainee how to expunge water closet by using plunger	Instruction & practice
12	1	Using chemicals for treatment of sewage	The instructor will teach the trainee how to treat sewage using (chemical)	Instruction & practice
	2-3	Unblocking sewage pipes	The instructor will teach the trainee how to expunge block sewage and soil pipe by using cane rod plunger	Instruction & practice
	4-5	Lifting and connection of tank	The instructor will teach the trainee how to pipe a building (up stair) during casting of decking for conduit piping	Instruction & practice
13	1-2	Lifting and connection of tank	The instructor will teach the trainee the method of hanging an overhead tank on bungalow	Instruction & practice
	3-5	Lifting and connection of tank	The instructor will teach the trainee the method of lifting of overhead tank in a story, two story buildings	Instruction & practice
14	1	Piping of overhead tank	The instructor will teach the trainee how to connect overhead tank that carries more than one tank	Instruction & practice
	2	Washing of overhead tank	The instructor will teach the trainee how to wash overhead tank black	Practice
	3		The instructor will teach the trainee the time frame to washing blue & red tank	Instruction & practice
	4	Treatment of water	The instructor will teach the trainee how to treat water to avoid blocking of supply pipe	Class instruction
	5	Installation	The instructor will teach the trainee how to connect pump to ponds & pools	Instruction & practice
15	1	Installation	The instructor will teach the trainee how to connect surface pump/evaluation	Instruction & practice

	2			Instruction & practice
	3	Installation and evaluation	The instructor will teach the trainee how to connect pressure pump/evaluation	Instruction & practice
	4	Threading of pipes and evaluation	The instructor will teach the trainee how to use dicing machine/standing vice/evaluation	Instruction & practice
	5	Caution / preventive measure	The instructor will teach the trainee how to avoid melting or burning a pipe when the gum is not covered	Instruction
16	1	electrical gum	The instructor will teach the trainees to know the right gum to use during piping hot line	Instruction
	2	Height of stanchion	The instructor will teach the trainee the concept of syphon in determining the height of tank	Instruction
	3	Direction on the stop cork	The instructor will teach the trainees on the direction to fit the stop cork to avert low pressure	Instruction
	4	Using sub-standard materials	The instructor will teach the trainees how to identify substandard material and avoid their use	Practice
	5	Reduce the rate of rubbing on the pipe	The instructor will teach the trainees how to apply the right quantity of gum to reduce the rate of rubbing on the pipe.	Practice
17	1-2	Treatment of water to reduce blockage on pipe line & taps	The instructor will teach the trainees how to treat water in order to reduce blockage of pipelines and taps by using water filter and candle.	Practice
	3	Preventing sand from entering the overhead water tank	The instructor will teach the trainees how to connect water filter to prevent sand from entering the overhead water tank.	Practice
	4	Prevention of water borne diseases	The instructor will teach the trainee how to treat water from the candle 0.5 micro 1"micro and charcoal.	Practice
	5	Treatment of water containing ion oxide	The instructor will teach the trainees how to treat water containing ion oxide using a filtration unit.	Instruction & practice

18	1-2	Materials used for connection	The instructor will teach the trainees how to connect the filtration unit before supplying water to the main structure.	Instruction & practice
	3	Preventing air trap	The instructor will teach the trainees how to always connect a pipe with tee near the discharge point to avoid air trap (overhead tank).	Instruction & practice
	4	Using galvanized materials to run air pipe	The instructor will teach the trainees how to connect air pipe for car sprayer's technology.	Practice
	5	Tracing leakage	The instructor will teach the trainees how to trace leakages in buildings particularly in a compound that is concreted	Practice
19	1	Tracing leakage in a hollow block / tiles	The instructor will teach trainees how to trace leakages in hollow blocks and tiles.	Practice
	2	Positioning air vent	The instructor will teach trainees how to position air vents to avoid odour in rooms.	Practice
	3		The instructor will teach trainees how to position air vents in order not to deface the house.	Instruction & practice
	4	Use of standing vice	The instructor will teach trainees how to set standing vice.	Practice
	5	Piping of bakery and oven with galvanized pipes	The instructor will teach trainees how to use galvanized pipes to pipe industrial bakeries oven to reduce external heat.	Practice
20	1	Piping bakery and oven with copper pipe	The instructor will teach trainees how to use copper pipes to pipe industrial bakeries oven to reduce external heat.	Instruction & practice
	2	Connecting pipes to fish ponds	The instructor will teach trainees how to connect pipes to fish ponds	Instruction & practice
	3	Connecting water to underground fish ponds	The instructor will teach trainees how to use recycling to connect water to underground fish ponds.	Instruction & practice
	4-5	Connecting fountains	The instructor will teach trainees how to connect fountains using surface, submersible and junior pumps.	Instruction & practice

21	1-2	Connecting fountains (cont'd)	The instructor will teach trainees how to connect fountains using surface, submersible and junior pumps.	Instruction & practice
	3-5	Piping hotel buildings	The instructor will teach trainees how to pipe hotel buildings to ensure easy maintenance.	Instruction & practice
22	1-2	Piping a bungalow without the heaters	The instructor will teach trainees how to cost plumbing materials for a bungalow without running or piping the heater.	Instruction
	3-4	Removal of blockage in the soil pipe	The instructor will teach trainees how to use cane rod plunger to remove blockage in the soil pipe.	Practice
	5	Double piping (piping a bungalow with heaters)	The instructor will teach trainees how to cost plumbing materials for a bungalow with water heater pipe (pressure pipe P. V. C).	Instruction
23	1	Double piping (piping a bungalow with heaters) (cont'd)	The instructor will teach trainees how to cost plumbing materials for a bungalow with water heater pipe (pressure pipe P. V. C).	Instruction
	2-5	Study of building plans	The instructor will teach trainees how to study various forms of building plans for plumbing work	Instruction & practice
24	1-2	How to take quotations	The instructor will teach trainees how to take quotations for plumbing works in office complex, bungalows, duplexes, hotels etc.	Instruction / practice
	3	Setting up a plumbing enterprise	The instructor will teach the trainees how to set up a successful plumbing enterprise.	Instruction
	4-5	Review	The instructor will lead the trainees in a review of all the activities.	Discussion