session plan

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| **Unit Code and Title:** | CPCPCM2040 - Read Plans and Calculate Plumbing Quantities |
| **Session number:** | 1 |
| **Trainer’s name:** | Bianca Morris |
| **Date:** | October 10, 2024 |
| **Duration:** | 4 hours |
| **Location:** | Plumbing Workshop |

# Learning Objective/s:

By the end of this session, learners will be able to:

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| Interpret plumbing plans and specifications.  Accurately calculate materials required for plumbing projects.  Apply effective methods for measuring quantities from construction drawings. |

# Facilitation Method:

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| PowerPoint presentation explaining how to read plans and specifications.  Hands-on practice with plumbing drawings and materials lists.  Group exercises to calculate material quantities based on provided plans.  One-on-one guidance during individual exercises. |

# Resources needed:

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| Plumbing drawings and specifications for practice.  Calculation worksheets and measuring tools.  Materials catalog for reference.  PowerPoint presentation on reading plans and calculations. |

# Learning Support

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| Provide extra assistance during practical exercises for learners needing help with calculations or interpreting plans.  Visual aids and diagrams to assist learners in understanding plumbing drawings. |

# Learning Environment

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| Simulated plumbing worksite setup with drawings, measurements, and sample materials.  Tables and drawing boards for hands-on calculations and measurements. |

# Session Structure and Timings

Provide a breakdown of each topic you will cover in the session. Please add or delete rows as necessary

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| Time | Topic / Activity | Content / trainer instructions | Learning Activities / Formative Assessments | Resources |
| 0:00-0:15 | Introduction to Reading Plans | Trainer introduces learners to plumbing plans and specifications, explaining symbols, scales, and basic layouts. | Group discussion to identify common symbols and key components of plumbing plans. | Plumbing drawings, PowerPoint presentation. |
| 0:15-1:00 | Reading Plumbing Plans | Trainer demonstrates how to interpret various plumbing plans, including water supply, drainage, and gas systems. | Learners observe and participate in identifying parts of the plans. | Sample plumbing plans and specifications. |
| 1:00-1:30 | Learner Practice - Reading Plans | Learners practice interpreting plumbing plans with guidance from the trainer. | Formative assessment: Trainer provides feedback during plan reading exercises. | Plumbing drawings, worksheets. |
| 1:30-1:45 | Break |  |  |  |
| 1:45-2:15 | Introduction to Calculating Quantities | Trainer explains how to measure and calculate quantities of materials from plans (e.g., pipes, fittings). | Group discussion on how to approach calculations and what factors to consider. | PowerPoint presentation, materials catalogue. |
| 2:15-3:15 | Learner Practice - Calculating Quantities | Learners practice calculating quantities based on plumbing plans, with support from the trainer. | Formative assessment: Trainer evaluates accuracy of calculations. | Calculation worksheets, plumbing plans, measuring tools. |
| 3:15-4:00 | Review and Discussion | Trainer leads a review of the key concepts covered in the session, addressing any challenges learners faced. | Group discussion on strategies for improving accuracy in reading plans and calculating quantities. | Feedback forms, discussion notes. |