Practical Maths for Electrical Installation Students & Apprentices

Scheme of Work (Level 2 & 3)

Total Guided Learning Hours: 30 (10 Units × 3 Hours)

Curriculum Intent

This course is designed to develop learners' mathematical confidence and competence within real electrical contexts. It aims to remove barriers to progress by embedding maths into practical applications relevant to industry.

Curriculum Implementation

Delivery is structured into 10 units, each delivered over a 3-hour session. Teaching follows a consistent model: recap, concept delivery, guided practice, independent application, and review. Resources include slides, worksheets, and applied examples linked to electrical installation tasks.

Curriculum Impact

Learners demonstrate improved accuracy, confidence, and ability to apply maths in practical scenarios. Progress is measured through unit assessments, a final assessment, and observation of learner performance.

© 2026 Trade Skills Hub. All rights reserved. For individual classroom use only.

Unit 1 – Basic Operations

- Perform accurate addition, subtraction, multiplication, and division
- Apply order of operations (BODMAS)
- Use written and mental calculation strategies
- Identify and correct common calculation errors

Unit 2 – Fractions

- Understand equivalent fractions
- Add and subtract fractions with different denominators
- Multiply and divide fractions
- Apply fractions in practical contexts

Unit 3 – Decimals

- Understand place value
- Perform decimal calculations
- Convert between fractions and decimals
- Apply rounding appropriately

Unit 4 – Percentages

- Calculate percentages of values
- Apply percentage increase and decrease
- Convert between fractions, decimals, and percentages
- Use percentages in practical problems

© 2026 Trade Skills Hub. All rights reserved. For individual classroom use only.

Unit 5 – Ratios

- Simplify ratios

- Divide quantities in a given ratio

- Apply proportional reasoning

- Use ratios in real-world contexts

Unit 6 – Powers (Indices)

- Understand index notation

- Apply index laws

- Calculate powers and roots

- Use indices in calculations

Unit 7 – SI Units

- Identify base SI units

- Use prefixes such as kilo and milli

- Convert between units

- Apply units in electrical contexts

Unit 8 – Algebra

- Understand algebraic notation

- Solve simple equations

- Rearrange expressions

- Apply algebra to practical problems

© 2026 Trade Skills Hub. All rights reserved. For individual classroom use only.

Unit 9 – Transposition

- Understand balancing equations

- Rearrange formulas

- Apply inverse operations

- Use formulas in electrical calculations

Unit 10 – Trigonometry & Pythagoras

- Understand right-angled triangles

- Apply Pythagoras’ theorem

- Use trigonometric ratios

- Solve practical problems involving angles and distances

© 2026 Trade Skills Hub. All rights reserved. For individual classroom use only.