

Functional Skills Level 2 Maths Overview

 Intent	 Implementation	 Impact
This Scheme of Work has been designed to ensure that learners are not only able to achieve their Functional Skills Maths Level 2 qualification, but also understand and apply mathematics in practical, every day, and vocational settings. It responds to the needs of learners who may not have flourished in traditional academic environments and instead benefit from applied learning and contextualisation. By embedding Welding and Fabrication scenarios into weekly teaching, the curriculum provides meaningful, purposeful learning opportunities that bridge the gap between the classroom and the workshop. The aim is to develop numeracy, logic, and problem-solving skills while boosting learners' confidence and preparing them for the demands of work, apprenticeships, or further education. The intent is to: • Support learners in achieving a nationally recognised Functional Skills Maths Level 2 qualification. • Develop mathematical fluency in key areas such as number, measures, data, shape, and algebra. • Prepare learners for the workplace by embedding contextualised learning through Welding and Fabrication scenarios.	The curriculum is implemented through a structured and sequenced 28-week programme, with three lessons per week designed to gradually build competence and confidence. Lessons are mapped out, allowing clear progression through all required Functional Skills Maths Level 2 topics. Core mathematical concepts are taught in the first two sessions each week, while the third session focuses on applying these skills to real-life welding and fabrication scenarios, helping learners to contextualise what they've learned. Each session includes differentiated learning outcomes, scaffolded activities, and varied teaching methods including modelling, group tasks, and independent challenges. Formative and summative assessment opportunities are embedded throughout the course, with revision and intervention time built in during the final term to ensure every learner has the opportunity to succeed. Implementation features: • A 28-week structure providing consistent, manageable progression. • Weekly integration of real-life welding & fabrication applications, ensuring	The impact of this Scheme of Work goes beyond exam success. Learners will be able to use maths in meaningful ways, in workshops, interviews, job sites, and everyday life. They will gain confidence in handling numbers, solving problems, and making informed decisions. By embedding maths into Welding and Fabrication contexts, students will better understand how their skills apply to the real world, making them more employable and prepared for apprenticeships, further training, or employment. Most importantly, the programme aims to develop independent, resilient learners who value maths and feel equipped to use it with confidence beyond the classroom. Key indicators of impact include: • Learners will achieve Functional Skills Maths Level 2, increase their employability and open pathways to further education, apprenticeships, or skilled employment. • Learners will demonstrate confidence in applying maths in practical welding settings, improving accuracy,

- Promote confidence, problem solving, and independence, especially for learners with SEND. - Bridge the gap between mathematical theory and vocational application, enabling learners to make clear connections between what they learn and how it applies in practical trade environments.						
- maths learning feels relevant and hands-on. - Differentiated learning outcomes for every lesson to ensure accessibility and challenge for all learners. - A rich variety of teaching strategies: direct instruction, visual modelling, collaborative tasks, peer teaching, independent practice, and exam preparation. - Regular opportunities for assessment, review, and feedback, including a final mock exam, peer/self-review, and a real Functional Skills assessment. - Targeted revision and intervention to address learner-specific gaps and stretch high-attaining students.						
- efficiency, and safety in vocational tasks. - Learners will be able to reason, problem-solve, and apply maths independently, both in and out of the classroom. - The curriculum promotes resilience and personal development, giving learners tools to tackle challenges logically and reflect on progress. - Final review activities, practical project-based work, and learner-led tasks will support retention and deeper understanding of mathematical skills.						
Term 1						
Subject	Week 1-2	Week 3-4	Week 5-6	Week 7-8	Week 9-10	Week 11-12
Functional Skills Level 1 Maths	Week 1: Diagnostic assessment and Place Value Diagnostic and Introduction to Workshop Maths	Week 3: Division and Negative Numbers Division Methods Working with Negative Numbers	Week 5: Averages and Data Interpretation Mean, Median, Mode and Range	Week 7: Perimeter, Area and Volume Perimeter and Area of Rectangles Volume of Cubes and Cuboids	Week 9: Angles and Symmetry Measuring and Drawing Angles Symmetry and Transformations	Week 11: Ratio and Proportion Understanding Ratios Proportion and Scaling

	Place Value and Ordering Addition & Subtraction Methods Interpreting Measurements and Job Sheets Week 2: Multiplication, Fractions, Percentages Multiplying Whole Numbers Fractions, Decimals & Percentages Calculating Percentages and Wastage	Dividing Materials & Below-Zero Calculations Week 4: Decimals and Money Calculations Decimal Calculations Calculations with Money Decimal & Money Use in Fabrication Quotes	Interpreting Data (Tables, Charts) Data in Workshop Environments Week 6: Time and Timetables Reading and Using Time Timetables and Schedules Workshop Schedules & Durations	Calculating Steel Plate and Box Section Use Week 8: Properties of 2D and 3D Shapes Properties of 2D Shapes Properties of 3D Shapes Shapes in Welding Projects	Angles in Brackets and Joints Week 10: Graphs and Charts Bar Charts and Line Graphs Pie Charts and Data Sets Graphing Production and Usage Data	Scaling Steel Orders and Proportional Welding Tasks Week 12: Fractions and Decimals Review Fractions Recap and Mixed Numbers Fractions and Decimals Combined Fraction and Decimal Precision in Measurement
Skills Developed						
	Place value Ordering numbers	Short and long division Negative number calculations	Interpreting graphs and tables	Calculating perimeter, area and volume.	Measuring/drawing angles, symmetry and transformations	Scaling ratios and solving proportion problems

	Column addition/subtraction Estimating quantities and interpreting job sheets Real-world maths awareness Short and long multiplication FDP conversion and reverse percentages Calculating material use	Remainder interpretation Budget loss and stock value Resilience in problem-solving Decimal operations Money calculations and applying discounts Producing job quotes and working with decimal measures Financial literacy	Analysing productivity and material use Data literacy and analytical thinking Time conversion and calculating durations Planning jobs and sequencing workshop activities Time management and organisation	Measuring materials and estimating quantities Identifying and classifying shapes Symmetry, edges/faces/vertices. Recognising shapes in fabrication and analysing strength Visual reasoning and creativity	Checking angles in jigs/designs Attention to detail and accuracy Interpreting and creating bar, line, and pie charts Presenting workshop data Communication with data and trend spotting	Scaling jobs and interpreting plans Efficiency and estimation strategies Converting and calculating with FDP Measuring accurately and applying proportions.
Term 2						
Subject	Week 1-2	Week 3-4	Week 5-6	Week 7-8	Week 9-10	Week 11-12
Functional Skills Level 1 Maths	Week 1: Speed, Distance and Time Understanding Speed Calculations	Week 3: Probability and Possibility Basic Probability Experimental Probability	Week 5: Introduction to Algebra Using Symbols and Expressions	Week 7: Recap and Consolidation of Key Topics Number and FDP Consolidation	Week 9: Shape, Space and Position Revision 2D and 3D Shape Review	Week 11: Final Assessment Preparation and Intervention Gap Analysis and Targeted Support

	Metric Conversions and Units Calculating Travel Time and Delivery Distances. Week 2: Problem Solving with Mixed Skills Using All Four Operations Working with Money and Units Solving a Full Fabrication Quote Problem	Risk and Probability in Welding Environments Week 4: Handling Complex Problems and Two-Step Calculations Multi-Step Problem Solving Problem Solving with Mixed Skills Complete Welding Task Using Combined Maths	Solving Equations and Substitution Algebra in Fabrication and Quoting Week 6: Functional Skills Practice & Exam Preparation Revision of Core Number and FDP Measures, Time and Problem Review Functional Skills Mock Task (Welding-Based)	Measure and Shape Review Combined Fabrication Problem Solving Week 8: Revision Week – Exam Style Practice Functional Skills Exam Technique Exam Paper Practice and Review Applied Mock Paper (Welding-Focused Task)	Position, Direction and Bearings Measuring Angles and Bearings on Welded Frames Week 10: Proportions, Scaling and Data Handling Recap Ratio and Proportion in Real Contexts Interpreting and Presenting Data Workshop Proportion and Data Interpretation	Group/Paired Revision Challenges Full Functional Skills Paper Practice Intervention Workshops (Low-Attainers) Week 12: Final Exam and Reflection Functional Skills Final Exam Final Celebration and Reflection
Skills Developed						
	Using formulas (speed = distance ÷ time) Planning deliveries, travel time and measuring materials	Describing probability and calculating likelihoods Assessing risk in workshop environment	Writing expressions and simplifying terms Using formulas for cost and planning in welding Persistence with new concepts	Consolidating FDP, shape, and measure skills Combining previously taught skills to solve realistic problems Revision and exam techniques	Properties of shape, measuring bearings, angles and directions Reading fabrication plans Accuracy in measurement	Targeted skill reinforcement Focused revision of key personal challenges Self-motivation, resilience and adaptability

	Interpreting data in motion Applying all four operations in real-life contexts Costing full welding jobs and job card analysis Resilience, confidence and accountability	Risk awareness and evaluating decisions Interpreting multi-step problems and using mixed methods Solving realistic project-based welding calculations Independence and logical sequencing	Revision of core number, measure, FDP, and time topics Practice paper application and identifying weaker areas Self-assessment and testing readiness	Managing time and applying strategies to paper-style questions Confidence under pressure	Ratio, scaling, interpreting complex data Scaling material quantities and graphing workshop performance Information processing	Reasoning with number, measure, and shape Collaborating on problems and revisiting common errors Full exam application across number, data, shape and FDP Working under timed conditions Reviewing performance Pride in achievement
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