Long Term Plan: E1-L2 Maths Functional Skills - NCFE

Unit	Entry Level 1 QN: 603/5057/X	Entry Level 2 QN: 603/5053/2	Entry Level 3 QN: 603/5061/1
Guided Learning Hours (GLH)	55 hours	55 hours	55 hours
Total Qualification Time (TQT)	61 hours	61 hours	61 hours
Skills, Knowledge and Learning	- using numbers and the number system – whole numbers - using common measures, shape and space - handling information and data Entry Level 1 learners are expected to be able to: • use given mathematical information and recognise and use simple mathematical terms appropriate to Entry Level 1 • use the methods given to produce, check and present results that make sense • provide a simple explanation for those results	-using numbers and the number system – whole numbers, fractions and decimals -using common measures, shape and space -handling information and data Entry Level 2 learners are expected to be able to: • use given mathematical information including numbers, symbols, simple diagrams and charts • recognise, understand and use simple mathematical terms appropriate to Entry Level 2 • use the methods given to produce, check and present results that make sense • present appropriate explanations using numbers, measures, simple diagrams, simple charts and symbols appropriate to Entry Level 2	-using numbers and the number system – whole numbers, fractions and decimals - using common measures, shape and space - handling information and data Entry Level 3 learners are expected to be able to: • use given mathematical information including numbers, symbols, simple diagrams and charts • recognise, understand and use simple mathematical terms appropriate to Entry Level 3 • use the methods given to produce, check and present results that make sense to an appropriate level of accuracy • present results with appropriate and reasoned explanation using numbers, measures, simple diagrams, charts and symbols appropriate to Entry Level 3
NC/Qualification Objectives	EL1.N1, EL1.N2, EL1.N3, EL1.N4 EL1.M5, EL1.M6, EL1.M7, EL1.M8, EL1.M9, EL1.M10 EL1.H11, EL1.H12, EL1.H13,	EL2.N1, EL2.N2, EL2.N3, EL2.N4, EL2.N5, EL2.N6, EL2.N7, EL2.N8, EL2.N9, EL2.N10, EL2.N11 EL2.M12, EL2.M13, EL2.M14, EL2.M15, EL2.M16, EL2.M17, EL2.M18, EL2.M19, EL2.M20, EL2.M21	EL3.N1, EL3.N2, EL3.N3, EL3.N4, EL3.N5, EL3.N6, EL3.N7, EL3.N8, EL3.N9 EL3.M10, EL3.M11, EL3.M12, EL3.M13, EL3.M14, EL3.M15, EL3.M16, EL3.M17, EL3.M18, EL3.M19, EL3.M20 EL3.H21, EL3.H22, EL3.H23

		EL2.H22, EL2.H23, EL2.H24, EL2.H25	
Assessment	These qualifications are assessed via one externally set controlled assessment which is task-based and taken in a controlled environment. It is then internally assessed, internally quality assured and externally quality assured. The assessment is divided into two sections. • Section A: the non-calculator section, which is first in the assessment, and contains 25% of the total marks. • Section B: the calculator section, which follows Section A, and contains 75% of the total marks. The pass mark is a combination of marks from both sections.		

Unit	**Level 1** **QN: 603/5055/6**	**Level 2** **QN: 603/5060/X**
Guided Learning Hours (GLH)	55 hours	55 hours
Total Qualification Time (TQT)	66 hours	66 hours
Skills, Knowledge and Learning	– using numbers and the number system – whole numbers, fractions, decimals and percentages – using common measures, shape and space – handling information and data Learners at Level 1 are expected to be able to: • read, understand and use mathematical information and mathematical terms required at this level • address individual problems as described above • use knowledge and understanding to a required level of accuracy • analyse and interpret answers in the context of the original problem • check the sense, and reasonableness, of answers • present results with appropriate explanation and interpretation, demonstrating simple reasoning to support the process, and show consistency with the evidence presented	– using numbers and the number system – whole numbers, fractions, decimals and percentages – measures, shape and space – handling information and data Learners at Level 2 are expected to be able to: • read, understand, and use mathematical information and mathematical terms • address individual problems as described above • use knowledge and understanding to a required level of accuracy • identify suitable operations and calculations to generate results • analyse and interpret answers in the context of the original problem • check the sense and reasonableness of answers • present and explain results clearly and accurately demonstrating reasoning to support the process and show consistency with the evidence presented
Qualification Objectives	L1.N1, L1.N2, L1.N3, L1.N4, L1.N5, L1.N6, L1.N7, L1.N8, L1.N9, L1.N10, L1.N11, L1.N12, L1.N1, L1.N13, L1.N14, L1.N15, L1.N16, L1.N17 L1.M18, L1.M19, L1.M20, L1.M21, L1.M22, L1.M23, L1.M24, L1.M25, L1.M126	L2.N1, L2.N2, L2.N3, L2.N4, L2.N5, L2.N6, L2.N7, L2.N8, L2.N9, L2.N10, L2.N11, L2.N12 L2.M13, L2.M14, L2.M15, L2.M16, L2.M17, L2.M18, L2.M19, L2.M20, L2.M21, L2.M22

	L1.H27, L1.H28, L1.H29, L1.H30, L1.H31	L2.H23, L2.H23, L2.H25, L2.H26, L2.H27, L2.H28
Assessment	These qualifications are each assessed via one external assessment which is task-based and invigilated. Once the completed assessments are returned to NCFE, they are marked by NCFE examiners. The Level 1 and Level 2 external assessments each have a duration of 120 minutes. The assessment is divided into two sections, non-calculator and calculator: • Section A: the non-calculator section contains 25% of the total marks, is completed first, and has a duration of 30 minutes. • Section B: the calculator section contains 75% of the total marks, is completed second and has a duration of 90 minutes	

Term	1	2	3	4	5	6
E1	Using numbers and the number system – whole numbers • Read, write, order and compare numbers up to 20 • Use whole numbers to count up to 20 items including zero	Using numbers and the number system – whole numbers • Add numbers which total up to 20, and subtract numbers from numbers up to 20 • Recognise and interpret the symbols +, – and = appropriately	Using common measures, shape and space • Recognise coins and notes and write them in numbers with the correct symbols (£ & p), where these involve numbers up to 20 • Read 12-hour digital and analogue clocks in hours • Know the number of days in a week, and months and seasons in a year. Be able to name and sequence	Using common measures, shape and space • Describe and make comparisons in words between measures of items including size, length, width, height, weight and capacity • Identify and recognise common 2-D and 3-D shapes including circle, cube, rectangle (incl. square) and triangle • Use everyday positional vocabulary to describe position and direction including left, right, in front, behind, under and above	handling information and data • Read numerical information from lists • Sort and classify objects using a single criterion	handling information and data • Read and draw simple charts and diagrams including a tally chart, block diagram/graph

E2	**Using numbers and the number system – whole numbers, fractions and decimals** • Count reliably up to 100 items • Read, write, order and compare numbers up to 200 • Recognise and sequence odd and even numbers up to 100 • Recognise and interpret the symbols +, – , x, ÷ and = appropriately • Add and subtract 2-digit numbers	**Using numbers and the number system – whole numbers, fractions and decimals** • Multiply whole numbers in the range 0 x 0 to 12 x 12 (times tables) • Know the number of hours in a day and weeks in a year. Be able to name and sequence • Divide 2-digit whole numbers by single-digit whole numbers and express remainders • Approximate by rounding to the nearest 10, and use this rounded answer to check results • Recognise simple fractions (halves, quarters and tenths) of whole numbers and shapes • Read, write and use decimals to one decimal place	**Using common measures, shape and space** • Calculate money in pence up to one pound and in whole pounds of multiple items and write with the correct symbols (£ or p) • Read and record time in common date formats, and read time displayed on analogue clocks in hours, half hours and quarter hours, and understand hours from a 24-hour digital clock •	**Using common measures, shape and space** • Use metric measures of length including millimetres, centimetres, metres and kilometres • Use measures of weight including grams and kilograms • Use measures of capacity including millilitres and litres • Read and compare positive temperatures • Read and use simple scales to the nearest labelled division	**Using common measures, shape and space** • Recognise and name 2-D and 3-D shapes including pentagons, hexagons, cylinders, cuboids, pyramids and spheres • Describe the properties of common 2-D and 3-D shapes including numbers of sides, corners, edges, faces, angles and base • Use appropriate positional vocabulary to describe position and direction including between, inside, outside, middle, below, on top, forwards and backwards	**Handling information and data** • Extract information from lists, tables, diagrams and bar charts • Make numerical comparisons from bar charts • Sort and classify objects using 2 criteria • Take information from one format and represent the information in another format including use of bar charts

E3	**Using numbers and the number system – whole numbers, fractions and decimals** • Count, read, write, order and compare numbers up to 1000 • Add and subtract using 3-digit whole numbers • Divide 3-digit whole numbers by single- and double-digit whole numbers and express remainders • Multiply 2-digit whole numbers by single- and double-digit whole numbers	**Using numbers and the number system – whole numbers, fractions and decimals** • Approximate by rounding numbers less than 1000 to the nearest 10 or 100 and use this rounded answer to check results • Recognise and continue linear sequences of numbers up to 100 • Read, write and understand thirds, quarters, fifths and tenths including equivalent forms • Read, write and use decimals up to 2 decimal places • Recognise and continue sequences that involve decimals	**Using common measures, shape and space** • Calculate with money using decimal notation and express money correctly in writing in pounds and pence • Round amounts of money to the nearest £1 or 10p • Read, measure and record time using am and pm • Read time from analogue and 24-hour digital clocks in hours and minutes	**Using common measures, shape and space** • Use and compare measures of length, capacity, weight and temperature using metric or imperial units to the nearest labelled or unlabelled division • Compare metric measures of length including millimetres, centimetres, metres and kilometres • Compare measures of weight including grams and kilograms • Compare measures of capacity including millilitres and litres • Use a suitable instrument to measure mass and length	**Using common measures, shape and space** • Sort 2-D and 3-D shapes using properties including lines of symmetry, length, right angles, angles including in rectangles and triangles • Use appropriate positional vocabulary to describe position and direction including eight compass points and including full/half/quarter turns	**Handling information and data** • Extract information from lists, tables, diagrams and charts and create frequency tables • Interpret information, to make comparisons and record changes, from different formats including bar charts and simple line graphs • Organise and represent information in appropriate ways including tables, diagrams, simple line graphs and bar charts

L1	**Using numbers and the number system – whole numbers, fractions and decimals** • Read, write, order and compare large numbers (up to one million) • Recognise and use positive and negative numbers • Multiply and divide whole numbers and decimals by 10, 100, 1000 • Use multiplication facts and make connections with division facts • Use simple formulae expressed in words for one or two-step operations • Calculate the squares of one-digit and two-digit numbers • Follow the order of precedence of operators	**Using numbers and the number system – whole numbers, fractions and decimals** • Read, write, order and compare common fractions and mixed numbers • Find fractions of whole number quantities or measurements • Read, write, order and compare decimals up to three decimal places • Add, subtract, multiply and divide decimals up to two decimal places • Approximate by rounding to a whole number or to one or two decimal places	**Using numbers and the number system – whole numbers, fractions and decimals** • Read, write, order and compare percentages in whole numbers • Calculate percentages of quantities, including simple percentage increases and decreases by 5% and multiples thereof • Estimate answers to calculations using fractions and decimals • Recognise and calculate equivalences between common fractions, percentages and decimals • Work with simple ratio and direct proportions	**Using common measures, shape and space** • Calculate simple interest in multiples of 5% on amounts of money • Calculate discounts in multiples of 5% on amounts of money • Convert between units of length, weight, capacity, money and time, in the same system • Recognise and make use of simple scales on maps and drawings	**Using common measures, shape and space** • Calculate the area and perimeter of simple shapes including those that are made up of a combination of rectangles • Calculate the volumes of cubes and cuboids • Draw 2-D shapes and demonstrate an understanding of line symmetry and knowledge of the relative size of angles • Interpret plans, elevations and nets of simple 3-D shapes • Use angles when describing position and direction, and measure angles in degrees	**Handling information and data** • Represent discrete data in tables, diagrams and charts including pie charts, bar charts and line graphs • Group discrete data and represent grouped data graphically • Find the mean and range of a set of quantities • Understand probability on a scale from 0 (impossible) to 1 (certain) and use probabilities to compare the likelihood of events • Use equally likely outcomes to find the probabilities of simple events and express them as fractions
L2	**Using numbers and the number system – whole numbers, fractions and decimals** • Read, write, order and compare positive and	**Using numbers and the number system – whole numbers, fractions and decimals** • Order, add, subtract and compare amounts or quantities using proper and improper fractions and mixed numbers	**Using common measures, shape and space** • Calculate amounts of money, compound interest, percentage increases, decreases and discounts, including tax and simple budgeting	**Using common measures, shape and space** • Calculate actual dimensions from scale drawings and create a scale diagram given actual measurements • Use coordinates in 2-D, positive and negative, to	**Handling information and data** • Calculate the median and mode of a set of quantities • Estimate the mean of a grouped frequency distribution from discrete data	**Revisiting areas needed for development for exam**

	negative numbers of any size • Carry out calculations with numbers up to one million, including strategies, to check answers including estimation and approximation • Evaluate expressions and make substitutions in given formulae in words and symbols • Identify and know the equivalence between fractions, decimals and percentages • Work out percentages of amounts and express one amount as a percentage of another • Calculate percentage change (any size increase and decrease), and original value after percentage change	• Express one number as a fraction of another • Order, approximate and compare decimals • Add, subtract, multiply and divide decimals up to three decimal places • Understand and calculate using ratios, direct proportion and inverse proportion • Follow the order of precedence of operators, including indices	• Convert between metric and imperial units of length, weight and capacity using a) a conversion factor and b) a conversion graph • Calculate using compound measures including speed, density and rates of pay • Calculate perimeters and areas of 2-D shapes including triangles and circles and composite shapes including non-rectangular shapes (formulae given except for triangles and circles) • Use formulae to find volumes and surface areas of 3-D shapes including cylinders (formulae to be given for 3-D shapes other than cylinders)	specify the positions of points • Understand and use common 2-D representations of 3-D objects • Draw 3-D shapes to include plans and elevations • Calculate values of angles and/or coordinates with 2-D and 3-D shapes	• Use the mean, median, mode and range to compare two sets of data • Work out the probability of combined events including the use of diagrams and tables, including two-way tables • Express probabilities as fractions, decimals and percentages • Draw and interpret scatter diagrams and recognise positive and negative correlation	