

Qualification title: Pearson Edexcel Functional Skills Qualification in Mathematics at Level 2

1. Content area: using numbers and the number system – whole numbers, fractions, decimals and percentages

Content area description:

Learners at Level 2 are expected to be able to use numbers of any size; read, write and make use of positive and negative integers of any size; use, order and compare integers, fractions, decimals, percentages and ratios as well as recognise the value of a digit in any whole or decimal number. They can use numerical and spatial patterns for a purpose and calculate with, and convert between, numbers written as fractions, decimals, percentages and ratios. See below for specific content on numbers and the number system.

Content	
1	Read, write, order and compare positive and negative numbers of any size
2	Carry out calculations with numbers up to one million including strategies to check answers including estimation and approximation
3	Evaluate expressions and make substitutions in given formulae in words and symbols
4	Identify and know the equivalence between fractions, decimals and percentages
5	Work out percentages of amounts and express one amount as a percentage of another
6	Calculate percentage change (any size increase and decrease), and original value after percentage change
7	Order, add, subtract and compare amounts or quantities using proper and improper fractions and mixed numbers
8	Express one number as a fraction of another
9	Order, approximate and compare decimals
10	Add, subtract, multiply and divide decimals up to three decimal places
11	Understand and calculate using ratios, direct proportion and inverse proportion
12	Follow the order of precedence of operators, including indices

2. Content area: using common measures, shape and space

Content area description:

Learners at Level 2 are expected to be able to handle relationships between measurements of various kinds, use angles and coordinates when involving position and direction and make use of geometric properties in calculations with 2-D and 3-D shapes and understand the relationships between them. See below for specific content on measures, shape and space.

Content	
13	Calculate amounts of money, compound interest, percentage increases, decreases and discounts including tax and simple budgeting
14	Convert between metric and imperial units of length, weight and capacity using a) a conversion factor and b) a conversion graph
15	Calculate using compound measures including speed, density and rates of pay
16	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)
17	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)
18	Calculate actual dimensions from scale drawings and create a scale diagram given actual measurements
19	Use coordinates in 2-D, positive and negative, to specify the positions of points
20	Understand and use common 2-D representations of 3-D objects
21	Draw 3-D shapes to include plans and elevations
22	Calculate values of angles and/or coordinates with 2-D and 3-D shapes

3. Content area: handling information and data

Content area description:

Learners at Level 2 are expected to be able to construct, interpret and evaluate a range of statistical diagrams. They can calculate and interpret probabilities. They can calculate, analyse, compare and interpret appropriate data sets, tables, diagrams and statistical measures such as common averages (mean, median, mode) and spread (range), and use statistics to compare sets of data. They can identify patterns and trends from data as well as recognise simple correlation. See below for specific content on information and data.

Content	
23	Calculate the median and mode of a set of quantities
24	Estimate the mean of a grouped frequency distribution from discrete data
25	Use the mean, median, mode and range to compare two sets of data
26	Work out the probability of combined events including the use of diagrams and tables, including two-way tables
27	Express probabilities as fractions, decimals and percentages
28	Draw and interpret scatter diagrams and recognise positive and negative correlation

Solving mathematical problems and decision making

Learners at Level 2 are expected to be able to use the knowledge and skills listed above to recognise and obtain a solution or solutions to a complex problem. A complex problem is one which requires a multistep process, typically requiring planning and working through at least two connected steps or processes.

Individual problems are based on a combination of the knowledge and/or skills from the mathematical content areas (number and the number system; measures, shape and space; information and data). At Level 2 it is expected that learners will be able to address individual problems, some of which draw on a combination of all three mathematical areas and require learners to make connections between those areas.

Assessment weighting

Learners at Level 2 are required to demonstrate their understanding of underpinning skills and their ability to apply mathematical thinking to solve problems, as set out below.

		Assessment weighting
Underpinning skills	Learners at Level 2 are expected to be able to do maths when not as part of a problem.	25%
Problem solving	Learners at Level 2 are expected to be able to: <ol style="list-style-type: none">1. read, understand, and use mathematical information and mathematical terms;2a. identify suitable operations and calculations to generate results;2b. recognise and obtain a solution or solutions to a complex problem3. use knowledge and understanding to a required level of accuracy;4. analyse and interpret answers in the context of the original problem;5. check the sense and reasonableness of answers; and6. present and explain results clearly and accurately demonstrating reasoning to support the process and show consistency with the evidence presented.	75%