

Course Information

Code: **FSMA5**
 Title: **Functional Skills Maths**
 Tutor: **Leesa Spencer**
 Day: **Monday**
 Time: **09:30 to 12:00**
 Dates: **5 September 2022 – 30 January 2023**
 Exam date: **6 February 2023 (TBC)**
 No of Sessions: **17 (plus 1 week for exam)**
 Venue: **Oakham Enterprise Park (OEP)**
 Cost: **Free for those without grade A-C at GCSE**



Who is it for?

Learners with basic Maths skills looking to gain an accredited qualification at Level 1 or Level 2. You will be assessed before starting your course to check your current skills.

What will I learn?

Level 1:

Number:

- Read, write, order and compare large numbers (up to 1 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 (BODMAS)
- 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
- Read, write, order and compare percentages in whole numbers
- Calculate percentages of quantities, including simple percentage increases and decreases by 5% and multiple 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 proportion

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
- 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

Course Information

- 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

Level 2:

Number:

- Read, write, order and compare positive and 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
- Order, add, subtract and compare amounts or quantities using proper and improper fractions and mixed numbers
- 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 (BIDMAS)

Using common measures, shape and space

- Calculate amounts of money, compound interest, percentage increases, decreases and discounts including tax and simple budgeting
- 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)
- Calculate actual dimensions from scale drawings and create a scale diagram given actual measurements
- Use coordinates in 2-D, positive and negative, to 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

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
- 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

Course Information

These subjects will be delivered step by step, by an experienced tutor, but you will need to practice your new skills at home as well.

If you need more information or advice, please call us on 01572 758122 or email adultlearning@rutland.gov.uk

What should I bring?

Your own folder, file, pencils, pens, highlighters, ruler, calculator, etc.

What could I do after this? Who delivers it?

Progress to Level 2 or onto Maths GCSE through Rutland Adult Learning and Skills Service or other learning providers. You can also use this qualification to support your job applications.

Directions and Map:

From the Oakham Bypass, turn onto the Ashwell Road. After about a mile cross the mini-roundabout and immediately prepare to turn right into Gate 2. The car park is straight on.

Adult Learning Hub,
Unit 16A, Gate 2
Oakham Enterprise Park,
Ashwell Road,
Oakham,
Rutland,
LE15 7TU

Tel: 01572 758122
E: adultlearning@rutland.gov.uk

R1A Route Buses run from Oakham, John Street Bus Station, at intervals throughout the day. The bus stop is just outside the entrance to the complex. For example:



John St	8:45 →	OEP	8:54
OEP	12:51 →	John St	12:59
John St	12:45 →	OEP	12:54
OEP	15:51 →	John St	15:59