The Royal School

Wolverhampton

Curriculum 2025

Functional Skills Maths

Curriculum Concepts
Functional Skills Maths

Intent

At The Royal School, our curriculum is designed to foster a lifelong love of learning and to nurture pupils who are confident, knowledgeable, and empathetic. Grounded in our school values —**Respect, Trust, Community, Initiative and Risk** — our intent is to provide a high-quality education where every child knows more, remembers more, and applies their knowledge confidently. Our curriculum is carefully sequenced to ensure concepts are introduced logically, with foundational knowledge underpinning more complex ideas. We prioritise knowledge and memory building through planned opportunities for retrieval, consolidation and progression. Pupils revisit key concepts frequently, supporting long-term retention and understanding.

We are committed to ensuring that all children immerse themselves in their learning. Through diverse representation and a focus on cultural capital, we encourage empathy, inclusion, and global citizenship. Every child, regardless of background or ability, is supported to meet ambitious expectations through adaptive teaching and inclusive strategies that promote challenge and achievement for all. Our curriculum is purposefully designed to engage, inspire and challenge, cultivating learners who are resilient, reflective, and equipped to thrive in modern society.

Implementation

To support staff in developing long-term, medium-term, and short-term curriculum and lesson planning, we have identified key curriculum concepts that underpin effective teaching and learning. Below is a summary of these concepts with brief explanations:

Sequencing & Progression: Curriculum content is thoughtfully ordered across and within year groups. Long- and medium-term plans ensure coherence, while individual lessons and 'The Royal Way' framework scaffold learning effectively. Subject leaders oversee sequencing to ensure continuity and progression. Proper sequencing ensures that foundational concepts are mastered before introducing more complex ideas, thereby building upon prior knowledge. This structured approach supports cumulative learning and prevents cognitive overload.

Adaptive teaching & Assessment: Effective assessment strategies include both **formative assessments** (ongoing checks for understanding during instruction) and **summative assessments** (evaluations at the end of instructional units). Aligning assessments with learning objectives ensures that they accurately measure intended outcomes. Pupil progress is regularly reviewed, with targeted interventions delivered as needed. Adaptive teaching ensures that instruction is responsive to the varying needs, abilities, and learning styles of students. This approach involves ongoing assessment, flexible grouping, live feedback, questioning, informal checks, and formal reviews. These are used to identify gaps and adapt teaching responsively to support and challenge. Effective adaptive teaching fosters inclusivity, helping all students to progress at their own pace while achieving high expectations.

Retrieval Practice & Interleaving: We embed retrieval throughout lessons using 'Think Backs', 'Do Now' activities at the start of lessons, low-stakes quizzes and working walls. These strategies reinforce prior learning and strengthen memory pathways, promoting deep understanding and knowledge fluency. Interleaving is an instructional strategy that alternates between different topics or skills within a single learning session. Unlike traditional blocked practice, where one topic is practiced extensively before moving to the next, interleaving mixes multiple topics, enhancing discrimination between concepts and improving retention. This approach challenges learners to continually retrieve and apply different information, strengthening memory and understanding.

Engagement: Engagement encompasses the strategies employed to capture and maintain students' attention, interest, and active participation in the learning process. High levels of engagement are associated with improved comprehension and retention. Techniques to enhance engagement include interactive activities, real-world applications, collaborative learning, and incorporating student interests into lessons. We hook learners through exciting experience days, curriculum-linked enrichment, and content pitched to meet and build upon pupils' current understanding. Strong relationships and positive learning behaviours ensure high levels of participation and enthusiasm.

Challenge & Aspiration: Challenge involves designing tasks and questions that stretch students' thinking and push them beyond their comfort zones. It is important to balance support and challenge to ensure all students are appropriately stimulated and motivated to progress. Tasks are designed to stretch thinking through resilience, modelling, scaffolding, and high expectations. Learners are encouraged to persevere, question deeply, and embrace productive struggle. Aspiration in the curriculum encourages students to develop a growth mindset. It involves exposing students to ambitious goals, inspiring role models, and future pathways that foster motivation and ambition. A curriculum that promotes aspiration helps students understand the value of perseverance and lifelong learning.

Context: Contextual learning connects curriculum content to real-world applications, making learning more meaningful and relevant for students. Providing context helps learners see the purpose behind what they are studying, whether through cross-curricular links, historical or cultural perspectives, or practical, real-world scenarios. This approach enhances engagement and retention.

Personal Development: Personal development in the curriculum focuses on fostering students' social, emotional, and character growth alongside academic learning. It includes promoting resilience, self-awareness, emotional intelligence, and a sense of responsibility. A well-rounded curriculum should encourage students to develop key life skills, confidence, and independence, preparing them for future challenges in education, work, and personal life.

In Senior School our curriculum is structured in learning cycles. Each cycle lasts for 7 weeks and includes at least one assessment followed by a review where re-teaching or stretch and challenge opportunities, tailored to the needs of the pupils can take place. There are 5 learning cycles per year.

Impact

The impact of our curriculum is measured not only in outcomes but in how pupils grow as learners and individuals. Pupils develop secure knowledge, transferable skills, and the confidence to apply their learning. They are engaged, resilient, and motivated, with the capacity to meet challenges and adapt to new contexts.

Progress is tracked over time through assessment data, lesson drop-ins, pupil voice, and work scrutiny. By integrating these concepts into curriculum planning The Royal intend to create structured, dynamic, and effective learning experiences that cater to the varied needs of our pupils. A well-designed curriculum ensures progression, engagement, and long-term success in learning. Our ambition is that all children leave The Royal School with the knowledge, behaviours, and attitudes to succeed academically, socially, and emotionally — prepared for the next stage of their education and life beyond.

How Functional Skills maths enables all students to thrive and achieve

How inclusive lessons have been planned
- Clear learning intentions as part of a learning journey - Content chunked into achievable steps - Use of modelled examples so that all learners can see what is expected of them - Appropriate scaffolding - Retrieval opportunities - Teaching of new vocabulary alongside visuals - Maths skills taught using a Pictorial-Concrete-Abstract model of learning - Use of manipulatives and other resources - Collaborative problem solving - Alternative ways of recording learning
How an inclusive environment has been created
- Smaller group sizes - A calm and supportive classroom - Students encouraged to take risks without fear or failure - Relationships - High expectations but recognising and accommodating different starting points
How the curriculum has been considered for pupils with additional needs
- Functional Skills maths has a differentiated pathway for learners ranging from Entry Level 1 to Level 2 - Real-life application - Topics chosen to reflect students' experience and interests - Maths skills taught through meaningful, work-related contexts e.g. shopping, travel, budgeting, time

Adaptive teaching strategies

How learners are supported with literacy
• Key vocabulary explicitly taught to support with understanding worded problems • Teachers model how to break down questions and interpret instructions • Sentence stems • Glossaries • Scaffolding of reading-heavy tasks
How learners are supported to retain vocabulary
• Key mathematical terms are revisited through retrieval practice • Vocabulary displayed in the classroom during lessons • Dual coding • Link new vocabulary to prior knowledge
How learners are supported with numeracy
• Basic number skills regularly revisited • Mental maths strategies • Use of manipulatives and visual representations
How learners are supported to develop conceptual understanding
• Students taught to understand *why* methods work • Practical contexts used to explore mathematical concepts • Misconceptions are addressed through guided discussion
How teaching is adapted for learners who struggle with attention

- Lesson structured into short, focused segments
- Clear routines and consistent expectations
- Use of whiteboards and manipulatives to help students to stay on task
- Checklists to help stay on task

How teaching is adapted for learners who struggle with change and transition

- Clear routines and consistent expectations
- Structure transitions between learning cycle content
- Embellished countdowns
- Pre-learning linked to topics

Functional Skills Maths Curriculum Mapping – Year 9, 10 and 11

The Functional Skills maths programme covers 3 components across 5 levels: Entry Level 1, Entry Level 2, Entry Level 3, Level 1 and Level 2.

The 3 components are:

- Using number and the number system
- Using common measures, shape and space
- Handling information and data

Entry Level 1

Entry Level 1 learners are expected to be use the knowledge and skills listed below to recongise and simple mathematical problem and obtain a solution. A simple mathematical problem is one which requires working through one step of process.
Learners at Entry Level 1 are required to demonstrate their understanding of underpinning skills, and their ability to apply mathematical thinking to solve problems in familiar contexts, as set out below

Using numbers and the number system – whole numbers	Using common measures, shape and space	Handling information and data
Read, write, order and compare numbers up to 20 Use whole numbers to count up to 20 items, including zero Add numbers which total up to 20, and subtract numbers from numbers up to 20	Recognise coins and notes and write them in numbers with the correct sumbols (£ and 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, months and seasons in a year; be able to name and sequence Describe and make comparisons in words between measures of items including size, length, width, height, weight and capacity Identify and recognise 2-D and 3-D shapes, including circle, cube, rectangle (including square) and triangle Use everyday positional vocabulary to describe	Read numerical information from lists Sort and classify objects using a single criterion Read and draw simple charts and diagrams, including a tally chart, block diagram/graph

	position and direction, including left, right, in front, behind, under and above	

Entry Level 2

Learners at Entry Level 2 are expected to become confident in their use of fundamental mathematical knowledge and skills and demonstrate their understanding by applying their knowledge and skills to solve simple mathematical problems or carry out simple tasks. Learners at Entry Level 2 are required to demonstrate their understanding of underpinning skills, and their ability to apply mathematical thinking to solve problems in familiar contexts.

Using numbers and the number system – whole numbers, fractions and decimals	Using common measures, shape and space	Handling information and data
Count reliably up to 100 items Read, write, order and compare numbers up to 200 Recognise and sequence odd and even numbers up to 200 Recognise and interpret the symbols +, -, x, divide and = appropriately Add and subtract two-digit numbers 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 two-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	Calculate money with 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 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 Recognise and name 2-D and 3-D shapes, including pentagons, hexagons,	Extract information from lists, tables, diagrams and bar charts Make numerical comparisons from bar charts Sort and classify objects using two criteria Take information from one format and represent the information in another format, including use of bar charts

Read, write and use decimals to one decimal place	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	

Entry Level 3

Learners at Entry Level 3 are expected to become confident in their use of fundamental mathematical knowledge and skills, as described through the following content areas, and demonstrate their understanding by applying their knowledge and skills to solve simple mathematical problems or carry out simple tasks.
Entry Level 3 learners are expected to be able to use their knowledge and skills to recognise a simple problem and obtain a solution. A simple problem is one which requires working through one step or process. At Entry Level 3, it is expected that learners will be able to address individual problems, each of which draws on knowledge and/or skills from one mathematical content area (i.e. number and the number system; common measures, shape and space; information and data).

Using numbers and the number system – whole numbers, fractions and decimals	Using common measures, shape and space	Handling information and data
Count, read, write, order and compare numbers up to 1000 Add and subtract using three-digit whole numbers Divide three-digit whole numbers by single- and double-digit whole numbers and express remainders Multiply two-digit whole numbers by single- and double-digit whole numbers Approximate by rounding numbers less than 1000 to the nearest 10 or 100 and use this rounded answer to check results	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 Use and compare measures of length, capacity, weight and temperature using metric or imperial units to the nearest labelled or unlabelled division	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

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 two decimal places Recognise and continue sequences that involve decimals	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 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 full/half/quarter turns	

Level 1

Learners at Level 1 are expected to be able to count in steps of various sizes, including negative numbers; and read, write and understand positive whole numbers to one million. They can order and compare whole numbers of any size, and fractions, ratios and decimals, and recognise the effect of multiplying and dividing by powers of 10, 100 and 1000. They can identify, compare and extend a range of numerical and spatial patterns, use, understand and calculate with fractions, decimals and percentages and calculate simple interest.
They are expected to be able to work out simple relationships between common units of measurement to define quantities, also involving mathematical terms for position and direction. They can apply and use calculations with common measures including money, time, length, weight and capacity. They can visualise, draw and describe 2-D and 3-D shapes and use properties of 2-D shapes in calculations.
They are expected to be able to select, construct and interpret a range of statistical diagrams in various contexts; select and use methods and forms to present and describe outcomes. They can extract and interpret information from tables, diagrams, charts and graphs; apply simple statistics and recognise features of charts to summarise and compare sets of data; recognise and use the probability scale and interpret probabilities.
Learners at Level 1 are expected to be able to use their knowledge and skills to recognise and obtain a solution or solutions to a straightforward problem. A straightforward problem is one that requires learners to either work through one step or process or to work through more than one connected step or process. Individual problems are based on the knowledge and/or skills in the mathematical content areas (number and the number system; common measures, shape and space; information and data). At Level 1 it is expected that learners will be able to address

individual problems, some of which draw on a combination of any two of the mathematical content areas and require learners to make connections between those areas

Using numbers and the number system – whole numbers, fractions, decimals and percentages	Using common measures, shape and space	Handling information and data
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 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	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 Use angles when describing position and direction, and measure angles in degrees	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

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		

Level 2

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.
They 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.
They 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.
Learners at Level 2 are expected to be able to use their knowledge and skills 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

Using numbers and the number system – whole numbers, fractions, decimals and percentages	Using common measures, shape and space	Handling information and data
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	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	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

Functional Skills maths Assessment Calendar 2025-2026

	Year 9	Year 10	Year 11
Learning Cycle 1	End of learning cycle maths paper	End of learning cycle maths paper	End of learning cycle maths paper
Learning Cycle 2	End of learning cycle maths paper	End of learning cycle maths paper	End of learning cycle maths paper
Learning Cycle 3	End of learning cycle maths paper	End of learning cycle maths paper	End of learning cycle maths paper
Learning Cycle 4	End of learning cycle maths paper	End of learning cycle maths paper	End of learning cycle maths paper
Learning Cycle 5	End of learning cycle maths paper	End of learning cycle maths paper	

At the end of each learning cycle, pupils will complete a sample maths paper for either Entry Level 1, 2, 3 or Level 1 or 2 based on informal assessments taking place throughout each term. Following completion of a maths paper, pupils will be given a learning cycle review highlighting their areas of strength in maths, and areas that require additional learning.

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Assessment criteria 2025-2026

Pupils in years 9, 10 and 11 will be assessed on their knowledge, understanding and skills of the curriculum. Pupils will be entered for their external assessments throughout each year at an appropriate point (Pearson allow for on-demand assessments throughout the school year) and will be entered for either Entry Level 1, Entry Level 2, Entry Level 3, Level 1 or Level 2 based on assessment information.

Entry level 1

Learners at Entry Level 1 are required to demonstrate their understanding of underpinning skills, and their ability to apply mathematical thinking to solve problems in familiar contexts.

Problem solving and underpinning skills		Assessment weighting
Problem solving	Entry Level 1 learners are expected to be able to: 1. use given mathematical information and recognise and use simple mathematical terms appropriate to Entry Level 1 2. use the methods given in the content areas above to produce, check and present results that make sense; and 3. provide a simple explanation for those results.	75%
Underpinning skills	The ability to mathematics when not part of a problem.	25%

Entry level 2

Learners at Entry Level 2 are required to demonstrate their understanding of underpinning skills, and their ability to apply mathematical thinking to solve problems in familiar contexts.

Problem solving and underpinning skills		Assessment weighting
Problem solving	Entry Level 2 learners are expected to be able to: 1. use given mathematical information, including numbers, symbols, simple diagrams and charts 2. recognise, understand and use simple mathematical terms appropriate to Entry Level 2 3. use the methods given in the content areas above to	75%

	produce, check and present results that make sense; and 4. present appropriate explanations using numbers, measures, simple diagrams, simple charts and symbols appropriate to Entry Level 2.	
Underpinning skills	The ability to do mathematics when not part of a problem.	25%

Entry level 3

Problem solving and underpinning skills		Assessment weighting
Problem solving	Entry Level 3 learners are expected to be able to: 1. use given mathematical information, including numbers, symbols, simple diagrams and charts 2. recognise, understand and use simple mathematical terms appropriate to Entry Level 3 3. use the methods given in the content areas above to produce, check and present results that make sense to an appropriate level of accuracy; and 4. present results with appropriate and reasoned explanation using numbers, measures, simple diagrams, charts and symbols appropriate to Entry Level 3.	75%
Underpinning skills	The ability to do mathematics when not part of a problem.	25%

Level 1

Problem solving and underpinning skills		Assessment weighting
Underpinning skills	Learners at Level 1 are expected to be able to do maths when not as part of a problem	25%
Problem solving	Learners at Level 1 are expected to be able to: 1. read, understand and use mathematical information and	75%

	mathematical terms used at this level; 2. recognise and obtain a solution or solutions to a straightforward problem 3. 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; and 6. present results with appropriate explanation and interpretation demonstrating simple reasoning to support the process and show consistency with the evidence presented.	

Level 2

Problem solving and underpinning skills		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: 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 problem 3. 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; and 6. present and explain results clearly and accurately demonstrating reasoning to support the process and show	75%

	consistency with the evidence presented	