



Curriculum Area Overview Mathematics

The vision for Mathematics.

The skills of mathematics are essential for everyday life and vital for understanding the world around us; counting, handling money, telling the time, measurement, organising space, recording and interpreting numerical and graphical data and using ICT. Being numerate will greatly improve the life chances of our children and young people.

We want to give Mowbray children and young people a real life understanding of Mathematics. We want to develop mathematicians who can calculate and think 'What is the best way to solve this problem?' and know which strategies to draw upon to do so.

We will strive for Mowbray children and young people to be inquisitive, curious mathematicians who can see the connections between different areas of mathematics, the wider curriculum and the world around them.

Our School Ethos and Values

Our school ethos is SURE and underpins all learning and values that parents, children, young people and staff share and wish to promote and develop here. SURE stands for 'Achieving Success through Understanding, Respect and Endeavour'.

Our School Mission Statement

We provide the best education for all our children and young people so that when they leave our school they have the skills, knowledge and aspirations to lead fulfilling lives as adults.

Our Vision

We believe that children and young people thrive when encouraged and supported; they respond to being treated in a positive and nurturing manner. The principles that comprise SURE are valued by both children and staff. They reflect our desire to help children and young people to understand their difficulties, support their wellbeing, develop respect for themselves and others and become successful in what they do and achieve throughout their time in school and into adulthood.

Mowbray Curriculum Intent

The intention of our curriculum is to create personalised learning opportunities based around individual EHCP outcomes and academic progress to successfully prepare our pupils for each stage of transition and life after school. At Mowbray School, we believe in providing our children and young people with the best possible start to their education and that we establish the building blocks for their future learning from the moment they start with us. We have high expectations of all children and young people we understand the vital role that early intervention has in providing aspirational outcomes into adulthood.





Curriculum Intent for Mathematics

EYFS

Our curriculum will:

- Start the learning journey for each child at the stage they arrive at Mowbray
- Prepare the children for their next step in life
- Develop an interest and curiosity in maths in the wider world
- Begin to lay the foundations of mathematical knowledge
- Deliver learning activities to ensure that the processes of learning progresses from sensory beginnings, moving towards counting, symbolic representation, abstract thinking and beginning the processes of addition and subtraction and calculations.

Our curriculum will be broadened by:

NSPCC – number day

• Maths themed day (previously broomsticks and bonfires)

• Mathseeds

• [Nrich activities](#)

• Maths focused reading books with mathematical activities

Attention Autism

Primary Semi-Formal

Primary Formal Pastoral

Primary Formal

Our curriculum will:

- Build on the previous learning the child brings into the semi-formal pathway
- Engage and challenge the children to make progress
- Widen the children's knowledge and understanding of the mathematical world.
- Deliver learning activities to ensure that the processes of learning progresses from sensory beginnings, moving

Our curriculum will:

- Develop and nature mathematical thinking to ensure real understanding and support essential life skills
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Our curriculum will:

- Develop and nature mathematical thinking to ensure real understanding and support essential life skills
- Ensure all learners are secure with the foundations of mathematical thinking, including knowledge of the key vocabulary and life skills associated with maths.





<p>towards counting, symbolic representation, abstract thinking and beginning the processes of addition and subtraction and calculations.</p>	<p>processes of addition and subtraction and calculations.</p> <ul style="list-style-type: none"> Widen the mathematical knowledge of the children to ensure they are ready for the next step in their learning once they join secondary Ensure young people can make efficient calculations (mental, written and with a calculator). Support young people become resilient problem solvers. 	<ul style="list-style-type: none"> Widen the mathematical knowledge of the children to ensure they are ready for the next step in their learning once they join secondary. Ensure young people can make efficient calculations (mental, written and with a calculator). Support young people become resilient problem solvers. 	
<p>Curriculum Entitlement</p>			
<p>Our curriculum will be broadened by NSPCC – number day</p> <ul style="list-style-type: none"> Maths themed day (previously broomsticks and bonfires) Mathseeds Nrich activities Maths focused reading books with mathematical activities. Attention Autism 	<p>Our curriculum will be broadened by NSPCC – number day</p> <ul style="list-style-type: none"> Maths themed day (previously broomsticks and bonfires) Mathseeds and Sumdog Nrich activities Maths focused reading books with mathematical activities. Attention Autism 	<p>Our curriculum will be broadened by NSPCC – number day</p> <ul style="list-style-type: none"> Maths themed day (previously broomsticks and bonfires) Sumdog Nrich activities Maths focused reading books with mathematical activities. 	
<p>Secondary Semi-Formal</p>	<p>Secondary Formal Pastoral</p>	<p>Secondary Formal</p>	<p>Secondary Formal (A.R.E)</p>





<p>Our curriculum will</p> <ul style="list-style-type: none"> •Support young people in their preparation for adulthood. •Maximise the development of young peoples' numeracy skills. Including supporting them in understanding counting, time and money. •Promote and enjoyment of numbers, shape and measure. •Promote mathematical vocabulary and communication. 	<p>Our curriculum will</p> <ul style="list-style-type: none"> •Maximise the development of young peoples' numeracy skills. Including supporting them in understanding counting, time and money. •Support young people •be fully differentiated to ensure young people are appropriately supported and challenged. •Link to other areas of the Mowbray curriculum including financial capability. •Promote mathematical vocabulary and communication. <p>KS4 ONLY:</p> <ul style="list-style-type: none"> •Enable all young people to leave with Pre-entry and Entry level accreditation to celebrate their attainment. •Support young people in Post 16 learning journey. 	<p>Our curriculum will</p> <ul style="list-style-type: none"> •Motivate young people to engage with maths skills to support them in their adulthood. •Give young people confidence telling the time, using money and practical measuring. •Give young people confidence counting and performing calculations (mental, written and with a calculator). •Support young people become resilient problem solvers. •Link to other areas of the Mowbray curriculum including financial capability. •Promote mathematical vocabulary and communication. <p>KS4 ONLY:</p> <ul style="list-style-type: none"> •Enable all young people to leave with Entry level accreditation to celebrate their attainment. •Support young people in Post 16 learning journey. 	<p>Our curriculum will</p> <ul style="list-style-type: none"> •Motivate young people to engage with the content. •Ensure young people are secure in numeracy skills for adulthood (e.g., telling the time, using money and practical measures) •Ensure young people can make efficient calculations (mental, written and with a calculator). •Support young people become resilient problem solvers. •Cover functional skills and GCSE content matching the needs and ability of young people. •Link to other areas of the Mowbray curriculum including financial capability. •Promote mathematical vocabulary and communication. <p>KS4 ONLY:</p> <ul style="list-style-type: none"> •Enable all young people to leave with Level 1 and/or Level 2 (e.g., GCSE) accreditation to celebrate their attainment, while being mindful of their wellbeing. •Support young people in Post 16 learning journey.
<p>Curriculum Entitlement</p>			





<p>Our curriculum will be broadened by</p> <ul style="list-style-type: none"> • NSPCC – number day • Maths themed day (previously broomsticks and bonfires) • Mathseeds • Nrich activities • Maths focused reading books with mathematical activities. <p>TACPAC Sensory stories Intensive interaction Attention Autism Colourful semantics Augmentative and Alternative Communication (AAC) Clicker Communicator Fine motor interventions; including the rainbow trail Puppets SALT intervention Cross curricular links through use of a thematic approach</p>	<p>Our curriculum will be broadened by</p> <ul style="list-style-type: none"> • NSPCC – number day • Maths themed day (previously broomsticks and bonfires) • Games such as shut the box, maths focused top trumps & maths and financial boards games. • Chess club (Jan 2023) • Sumdog games, competitions and assessments. Mathseeds is an alternative online platform. • Nrich activities & challenges • Maths focused reading books with mathematical activities. 	<p>Our curriculum will be broadened by</p> <ul style="list-style-type: none"> • NSPCC – number day • Maths themed day (previously broomsticks and bonfires) • Games such as shut the box, maths focused top trumps & maths and financial boards games. • Chess club (Jan 2023) • Sumdog games, competitions and assessments. • Nrich activities & challenges • The London Institute of Banking & Finance - Lessons in Financial Education (LiFE Level 1) • Maths focused reading books with mathematical activities. 	<p>Our curriculum will be broadened by</p> <ul style="list-style-type: none"> • NSPCC – number day • Maths themed day (previously broomsticks and bonfires) • Games such as shut the box, maths focused top trumps & maths and financial boards games. • Chess club (Jan 2023) • Sumdog games, competitions and assessments. • Century online learning platform (personalised learning at KS4 level of demand). • Nrich secondary activities & challenges • The London Institute of Banking & Finance - Lessons in Financial Education (LiFE Level 1 & 2) • Maths focused reading books with mathematical activities.
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Whole School Maths SOW





Maths – Mowbray Steps (Jan 2023) - Inc [Learning ladders Links](#) & [MTP / half term overviews](#).

KS1/2/3	Autumn 1	Autumn 2	Spring 1 MTP Step 6 – 17	Spring 2	Summer 1 (Secondary 5 lessons per week)	Summer 2
< Step 10	Number (4 Wks) Space & shape (2 Wks)	Number (2 Wks) Money (2 Wks) Time (2 Wks)	Counting (2 Wks) Learning ladders Space & shape (2 Wks) Measures (2 Wks)	Number & world book day (2 Wks) Space & shape (4 Wks)	Time (4 Wks) Measures (2 Wks)	Measures (2 Wks) Number (2 Wks)
Step 10 – 14 (Pre KS1)	Number (4 Wks) Space & shape (2 Wks)	Number (2 Wks) Money (2 Wks) Time (2 Wks)	Counting (1 Wk) Learning ladders SA & K Vocab (S13 & 14) Number (±) Learning ladders Learning ladders SA & K Vocab (2 Wks) Space & shape (3 Wks)	Number & world book day (2 Wks) Space & shape (2 Wks) Time (2 Wks)	Number (1 Wk) Statistics (3 Wks) Measures (2 Wks)	Measures (2 Wks) Number (2 Wks)
Step 15 & 16 (KS1)	Number (6 Wks)	Number (2 Wks) Money (2 Wks) Time (2 Wks)	Statistics (1-2 Wk) Learning Ladders SA & K Vocab (S15) SA & K Vocab (S16) Number (±) (2-3 Wks)	Number & world book day (2 Wks) Geometry (2 Wks) Time (2 Wks)	Number (2 Wks) Statistics (2 Wks) Measures (2 Wks)	Measures (2 Wks) Number (2 Wks)





			Learning ladders SA & K Vocab (S15) SA & K Vocab (S16) Fractions (2-3 Wks) Learning Ladders			
Step 17 & 18 (LKS2)	Number (6 Wks)	Number (2 Wks) Money (2 Wks) Time (2 Wks)	Statistics (1-2 Wk) Learning Ladders SA & K Vocab (S17) SA & K Vocab (S18) Number (4 Operations) (2-3 Wks) Learning ladders SA & K Vocab (S17) SA & K Vocab (S18) Fractions (2-3 Wks) Learning Ladders	Number & world book day (2 Wks) Geometry (2 Wks) Time (2 Wks)	Number (2 Wks) Statistics (2 Wks) Measures (2 Wks)	Measures (2 Wks) Number (2 Wks)
Step 19 & 20 (UKS2)	Number (6 Wks)	Number (2 Wks) Money (2 Wks) Time (2 Wks)	Statistics (1-2 Wk) Learning Ladders SA & K Vocab (S19-20) Number (4 Operations) & Fractions (5 Wks) Learning ladders SA & K Vocab (S19)	Number & world book day (2 Wks) Geometry (2 Wks) Time (2 Wks)	Number (2 Wks) Statistics (2 Wks) Measures (2 Wks)	Measures (2 Wks) Number (2 Wks)





<p>Step 21 – 23 (KS3)</p> <p>Click here for topic by year group breakdown.</p>	<p><u>Developing Number</u> Number (6 Wks)</p>	<p><u>Developing Number</u> Number (2 Wk)</p> <p><u>Algebraic techniques</u> Algebra (4 Wks)</p>	<p><u>Developing Geometry</u> Area & Perimeter (3 Wks)</p> <p><u>Learning Ladders</u> <u>SA & K Vocab (KS3)</u></p> <p><u>Developing Number</u> 4 Operations & Fractions (3 Wks)</p>	<p><u>Algebraic techniques</u> Solving equations (2 Wks)</p> <p><u>Proportional reasoning</u> Ratio (4 Wks)</p>	<p><u>Algebraic techniques & Developing Geometry</u> Algebra Coordinates, transformations & graphs (4 Wks)</p> <p><u>Reasoning with data</u> (2 Wks)</p>	<p><u>Representations</u> Probability (2 Wks)</p> <p><u>Constructions</u> (3 Wks)</p>
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Maths – Mowbray Steps (Jan 2022)						
KS4 (2 year cycle)	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Semi-formal Pre-Entry level < Step 10	Number (4 Wks) Geometry (2 Wks)	Number (2 Wks) Money (2 Wks) Time (2 Wks)	Counting Geometry	Geometry (4 Wks) Number & world book day (2 Wks)	Time (4 Wks) Measures (2 Wks)	Measures (2 Wks) Number (2 Wks)





<p>Pre-Entry level (Mowbray Step 10–14) - Year 1</p>	<p>Properties of number Possible AQA unit awards Pre-Entry: 113955 COMPARING NUMBERS TO 10 Entry Level 1: 15000 MATHS: PROPERTIES OF NUMBER</p>	<p>Properties of number. Possible AQA unit awards Pre-Entry: 117936 NUMBERS TO 30</p>	<p>Properties of number: Number formation & number bonds Possible AQA unit awards Pre-Entry: 115964 MATHS: THE FOUR OPERATIONS Entry Level 1: 15003 MATHS: THE FOUR OPERATIONS (WITHOUT A CALCULATOR)</p>	<p>Fraction Possible AQA unit awards Pre-Entry: Entry Level 1: 15006 MATHS: RATIO</p>	<p>Money Possible AQA unit awards Pre-Entry: Entry Level 1: 15009 MATHS: MONEY</p>	<p>The calendar and time Possible AQA unit awards Pre-Entry: Entry Level 1: 15012 MATHS: THE CALENDAR AND TIME</p>
<p>Pre-Entry level (Mowbray Step 10–14) - Year 2</p>	<p>Measures Possible AQA unit awards Pre-Entry: 115967 INTRO TO MEASURING Entry Level 1: 15015 MATHS: MEASURES</p>	<p>Geometry Possible AQA unit awards Pre-Entry: 115968 INTRO TO GEOMETRY Entry Level 1: 15018 MATHS: GEOMETRY</p>	<p>Statistics Possible AQA unit awards Pre-Entry: Entry Level 1: 15021 MATHS: STATISTICS</p>	<p>Properties of number</p>	<p>AQA unit award PFA – Finance.</p>	
<p>AQA Entry Level</p>	<p>Component 1: properties of number Learning ladders</p>	<p>Component 2: the four operations Learning ladders</p>	<p>Component 2: the four operations Learning ladders</p>	<p>Component 3: ratio Learning ladders</p>	<p>Component 4: money Learning ladders</p>	<p>Component 5: the calendar and time Learning ladders</p>





AQA Entry Level	Component 6: measures Learning ladders	Component 7: geometry Learning ladders	Component 8: statistics Learning ladders	Catch up & complete	AQA unit award PfA – Finance.	
AQA Entry Level & AQA Functional skills level 1 (Y1)	Use of number and the number system Inc. ELC Component 1 Learning ladders	Use of number and the number system Functional skills learning ladders.	Use of number and the number system Functional skills learning ladders.	Use of number and the number system Inc. ELC Component 2 Learning ladders	Use of number and the number system Inc. ELC Component 3 Learning ladders	Use of measures, shape and space Inc. ELC Component 4 & 5 Learning ladders
AQA Entry Level & AQA Functional skills level 1 (Y2)	Use of measures, shape and space Inc. ELC Component 6 & 7 Learning ladders	Handling information and data Inc. ELC Component 8 Learning ladders	Handling information and data Inc. ELC Component 8 Functional skills learning ladders.	Revision & Exam Functional skills learning ladders.	AQA unit award PfA – Finance.	
AQA GCSE - Inc AQA ELC & Functional skills level 1 (Y1)	Number GCSE learning ladders.	Algebra GCSE learning ladders.	Statistics GCSE learning ladders.	Fractions GCSE learning ladders.	Graphs GCSE learning ladders.	Shapes and construction
AQA GCSE - Inc AQA ELC & Functional skills level 1 (Y2)	Number GCSE learning ladders.	Algebra (Inc Pythagoras & Trigonometry) GCSE learning ladders.	Geometry & measures. GCSE learning ladders.	Revision GCSE learning ladders.	Revision & exam	

Full details of AQA route maps can be found on the Mowbray area of the [AQA All about Maths website](#) for Entry Level Certificate (ELC), Functional skills & GCSE, giving full details of teaching, planning and assessment.

The KS3 includes content from the White Rose Schemes of Learning. It is important to note that we do not follow the suggested timings exactly. This is for 2





important reasons

- 1) A majority of KS3 & KS4 young people at Mowbray are accessing learning at a KS1 / 2 demand but need to develop skills such as time and money to prepare them for adulthood, these important life skills topics are allocated about 10% (zero in Y5 & 6) of learning time in the original White Rose Schemes of learning, which is not enough for young people preparing for adulthood, the Mowbray KS3 SOW allocates 20% to time and money (below Step 20), this is taken from Number, however number is implicit in the teaching of time & money.
- 2) As teachers, we assess and respond to the needs of the children we are teaching. This means that, at some times, we will spend longer working on a concept and at other times, we will spend less time than outlined in the White Rose Schemes of Learning. This ensures that our maths curriculum provides the best learning opportunities possible for all of our children.

