# Maths Curriculum

West London Primary Cluster

# Maths Curriculum

- Our structured coherent curriculum develops pupils into mathematical thinkers.
- Aligned to our principles of Effective Learning.
- Aligned to White Rose Maths Curriculum and contextualised for each class.
- White Rose Maths aligns with the National Curriculum and EYFS and covers all statutory requirements. It is an ambitious, connected curriculum accessible to all.
- Our curriculum clearly sequences declarative knowledge that pupils should know by the end of each of year.
- Pupils will be fluent in the fundamentals of mathematics, to be able to reason and to solve problems.

# Rationale

- WRM curriculum and Maths Principles are used to support teachers to become strong teachers of mathematics.
- Curriculum has clear sequences of learning in 'blocks' which break down into smaller 'steps'.

# Nursery

| | Week 1 | Week 2 | Week 3 | Week 4 | Week 5 | Week 6 | Week 7 | Week 8 | Week 9 | Week 10 | Week 11 | Week 12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Autumn | Baseline | | | • To match and sort<br>• To compare amounts<br>• To compare size<br>• Pattern – everyday patterns and repeating pattern. | | | • To explore, recognise and compare amounts 1, 2 and 3, 4 and 5 | | | | • To understand positional language | • To explore 2D and 3D shapes |
| Spring | • Develop cardinality/experimenting with symbols and marks.<br>• Subitising<br>• Rote counting to 10. | | • Compare capacity.<br>• Compare length. | | • To name and describe 2D shapes with mathematical.<br>• Talk and explore 3D shapes. | | • Representing numbers and amounts 1 – 5.<br>• Rote counting to 10.<br>• Subitising | | • Solving real life problems up to 5. | • Comparing weight. | • Positional language<br>• Routes | |
| Summer | • Link numeral and amounts to 5<br>• Reciting past 5<br>• Solve real life problems up to 5. | | | • 2D and 3D shapes<br>• To create repeating patterns (and correct errors).<br>• Combine shapes to make a new one. | | | • Forming numbers 1-5 (spend two days on each numeral) | | • Sequencing events/day and night ordering<br>• Discuss routes and locations<br>• 2D and 3D shapes<br>• Positional language | | | |

# Reception

| | Week 1 | Week 2 | Week 3 | Week 4 | Week 5 | Week 6 | Week 7 | Week 8 | Week 9 | Week 10 | Week 11 | Week 12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Autumn | Getting to know you (Baseline) | | | Just like me!<br>• Match<br>• Sort<br>• Compare amounts<br>• Compare size, mass and capacity<br>• Make simple patterns | | | It's me 1 2 3<br>• Representing 1 2 3<br>• Comparing 1 2 3<br>• Composition 1 2 3<br>• Circles and triangles<br>• Spatial awareness | | | Light and Dark<br>• Four<br>• Five<br>• One more one less<br>• Shapes with four sides<br>• Night and Day | | |
| Spring | Alive in five!<br>• Introducing zero<br>• Comparing numbers to 5<br>• Comparing mass<br>• Comparing capacity | | | Growing 6 7 and 8<br>• 6, 7 and 8<br>• Making pairs<br>• Combining two groups<br>• Length and height<br>• Time | | | Building 9 and 10<br>• 9 and 10<br>• Comparing numbers to 10<br>• Bonds to 10<br>• 3D shape<br>• Pattern (2) | | | Consolidation | | |
| Summer | To 20 and Beyond<br>• Building numbers beyond 10<br>• Counting patterns beyond 10<br>• Spatial reasoning | | | First, then, now<br>• Adding more<br>• Taking away<br>• Spatial reasoning | | | Find my pattern<br>• Doubling<br>• Sharing and grouping<br>• Evens and Odds | | | On the move<br>• Deepening understanding<br>• Patterns and relationships<br>• Spatial reasoning | | |

# Year 1

| | Week 1 | Week 2 | Week 3 | Week 4 | Week 5 | Week 6 | Week 7 | Week 8 | Week 9 | Week 10 | Week 11 | Week 12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Autumn | Number<br>Place value (Within 10) | | | | | Number<br>Addition and subtraction (Within 10) | | | | | Geometry<br>Shape | Consolidation |
| Spring | Number<br>Place value (Within 20) | | | Number<br>Addition and subtraction (Within 20) | | | Number<br>Place value (within 50) | | Measurement<br>Length and height | | Measurement<br>Mass and volume | |
| Summer | Number<br>Multiplication and division | | | Number<br>Fractions | | Geometry<br>Position and direction | Number<br>Place value (within 100) | | Measurement<br>Money | Measurement<br>Time | | Consolidation |

# Year 2

| | Week 1 | Week 2 | Week 3 | Week 4 | Week 5 | Week 6 | Week 7 | Week 8 | Week 9 | Week 10 | Week 11 | Week 12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Autumn | Number<br>Place value | | | | Number<br>Addition and subtraction | | | | | Geometry<br>Shape | | |
| Spring | Measurement<br>Money | | Number<br>Multiplication and division | | | | | Measurement<br>Length and height | | Measurement<br>Mass, capacity and temperature | | |
| Summer | Fractions | | Measure<br>Time | | | Statistics | | Geometry<br>Position and Direction | | Problem solving | | |

# Year 3

| | Week 1 | Week 2 | Week 3 | Week 4 | Week 5 | Week 6 | Week 7 | Week 8 | Week 9 | Week 10 | Week 11 | Week 12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Autumn | Number<br>Place value | | | Number<br>Addition and subtraction | | | | | Number<br>Multiplication and division | | | |
| Spring | Number<br>Multiplication and division | | | Measure<br>Length and perimeter | | | Number<br>Fractions | | | Measure<br>Mass and capacity | | |
| Summer | Number<br>Fractions | | Measurement<br>Money | | Measurement<br>Time | | | Geometry<br>Shape | | Statistics | | Consolid<br>ation |

# Year 4

| | Week 1 | Week 2 | Week 3 | Week 4 | Week 5 | Week 6 | Week 7 | Week 8 | Week 9 | Week 10 | Week 11 | Week 12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Autumn | Number<br>Place value | | | | Number<br>Addition and subtraction | | | Measurement<br>Area | Number<br>Multiplication and division | | | Consolidation |
| Spring | Number<br>Multiplication and division | | | Measure<br>Length and perimeter | | Number<br>Fractions | | | | Number<br>Decimals | | |
| Summer | Number<br>Decimals | | Measurement<br>Money | | Measurement<br>Time | | Consolidation | Geometry<br>Shape | | Statistics | Geometry<br>Position and direction | |

# Year 5

| | Week 1 | Week 2 | Week 3 | Week 4 | Week 5 | Week 6 | Week 7 | Week 8 | Week 9 | Week 10 | Week 11 | Week 12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Autumn | **Number**<br>Place value | | | **Number**<br>Addition and subtraction | | **Number**<br>Multiplication and division | | | **Number**<br>Fractions A | | | |
| Spring | **Number**<br>Multiplication and division | | | **Number**<br>Fractions B | | **Number**<br>Decimals and percentages | | | **Measurement**<br>Perimeter and area | | **Statistics** | |
| Summer | **Geometry**<br>Shape | | | **Geometry**<br>Positions and direction | | **Number**<br>Decimals | | | **Number**<br>Negative numbers | **Measurement**<br>Converting units | | **Measurement**<br>Volume |

# Year 6

| | Week 1 | Week 2 | Week 3 | Week 4 | Week 5 | Week 6 | Week 7 | Week 8 | Week 9 | Week 10 | Week 11 | Week 12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Autumn | **Number**<br>Place value | | **Number**<br>Place value- decimals<br>Angles<br><br>Subtraction<br>Multiplication<br>Division<br>Inverse | | | | | **Number**<br>Long division | | **Number**<br>Percentages, decimals, fractions | | |
| Spring | **Measurement**<br>converting units | | **Measurement**<br>time | | **Number**<br>Algebra<br>Ratio | | **Number**<br>Ratio | | **Geometry**<br>Shape<br>Area/perimeter | | **Statistics** | |
| Summer | **Revision**<br>Geometry<br>Shape | | | **Geometry**<br>Positions and directions | **Themed projects, consolidation and problem solving** | | | | | | | |

# Beyond KS2

The national curriculum for mathematics in KS3 continues to ensure that all pupils:

- become fluent in the fundamentals of mathematics, including through varied and frequent practice with increasingly complex problems over time, so that pupils develop conceptual understanding and the ability to recall and apply knowledge rapidly and accurately.
- reason mathematically by following a line of enquiry, conjecturing relationships and generalisations, and developing an argument, justification or proof using mathematical language
- can solve problems by applying their mathematics to a variety of routine and nonroutine problems with increasing sophistication, including breaking down problems into a series of simpler steps and persevering in seeking solutions.
- Mathematics is an interconnected subject in which pupils need to be able to move fluently between representations of mathematical ideas. The programme of study for key stage 3 is organised into apparently distinct domains, but pupils should build on key stage 2 and connections across mathematical ideas to develop fluency, mathematical reasoning and competence in solving increasingly sophisticated problems. They should also apply their mathematical knowledge in science, geography, computing and other subjects.

Mathematics programmes of study: key stage 3