

Fluency Development (Key Instant Recall Facts and Skills)

Key Skills






Autumn	Spring	Summer
Place value, number bonds, double and halving, multiplication and division facts, factors, conversions, rounding, squared numbers, fractions and decimals, x10, 100, 1000, fraction/percentage of an amount, number lines, BODMAS, prime numbers, angles, area and perimeter. Ensure fractions, decimal and percentage equivalence is taught and learnt throughout all sessions.		

Retrieval timetable

Autumn 1	Spring 1	Summer 1
Times Tables	Problem of the day/word problem	Consolidation
Autumn 2	Spring 2	Summer 2
Problem of the day/word problem	Problem of the day/word problem	Time (with problem)

****Also, ensure revision of previous KIRFs. See KIRF progression map ****

Topic Progression

-  Pictorial and abstract representations can be used alongside each other.
-  Refer to the calculation policy for representations.
-  Children expected to draw representations in books.
-  Teach one representation at a time.
-  Use real life experiences/data collection to support understanding.

Autumn 1	Spring 1	Summer 1
<p>Number Place value and Counting (3 weeks) (Application of measure (incl. time and money) where applicable)</p> <p>Four Operations (4 weeks) (Application of measure (incl. time and money) and statistics where applicable)</p> <p>Geometry Properties of Angles Properties of shape (1 weeks)</p> <p>(8 weeks)</p> <p style="color: red;">One lesson per week retrieval style arithmetic (where applicable)</p>	<p>Fractions (retrieval) Decimals, Percentages (2 weeks) (Application of number (incl. PV, A&S, M&D) where applicable)</p> <p>Geometry (1 week) Properties of Shape</p> <p>Algebra (2 weeks) Algebra</p> <p>Ratio and proportion retrieval (2 Weeks)</p> <p>(7 Weeks)</p> <p style="color: red;">One lesson per week retrieval style arithmetic (where applicable)</p>	<p>Year 6 Consolidation and retrieval (5 Weeks) Teacher assessment (3 weeks) Four Operations Consolidation (2 weeks)</p> <p>(5 Weeks)</p> <p style="color: red;">One lesson per week retrieval style arithmetic (where applicable)</p>
Autumn 2	Spring 2	Summer 2
<p>Number Four operations of Fractions (2 weeks: constantly reviewing in retrieval) (Application of number (incl. PV, A&S, M&D) where applicable)</p> <p>Perimeter, Area and Volume (2 weeks) (Application of number (incl. PV, A&S, M&D) where applicable)</p> <p>Fractions, decimals and percentages (2 weeks) (Application of number (incl. PV, A&S, M&D) where applicable)</p> <p>(6 Weeks to allow for adjustments)</p> <p style="color: red;">One lesson per week retrieval style arithmetic (where applicable)</p>	<p>Teacher assessment (6 Weeks) * Spring 2 may be altered following teacher assessment.</p> <p style="color: red;">One lesson per week retrieval style arithmetic (where applicable)</p>	<p>Geometry Position and Direction (Incl. coordinates) Properties of Shape and Angles (1 weeks)</p> <p>Statistics Graphs, Charts and Tables (2 weeks)</p> <p>Consolidation, Retrieval and Application Efficiency and fluency in mathematical thinking with application to real life mathematically rich projects (4 weeks)</p> <p>(7 Weeks)</p> <p style="color: red;">One lesson per week retrieval style arithmetic (where applicable)</p>

	Year 6 objectives
<p>Number and Place Value 3 weeks - some of these lessons may take longer than one lesson or may be practical</p> <p>Teacher notes</p> <ul style="list-style-type: none"> Ensure you are always using place value hats on all work presented in books. Decimal places have a box of their own <p>Place value hats...</p> <p>M 100 10 th h t o . 1/10 1/100 Th th</p>	To recognise the value of all of the digits in numbers up to 1,000,000 - pictorial/concrete
	To recognise the value of all of the digits in numbers upto 10,000,000
	To identify which digit has a certain value in numbers up to 10,000,000.
	To use pictorial representations to represent the same number in digits and words numbers up to 10,000,000.
	To use the less than, greater than and equals symbols to compare numbers and pictorial representations of numbers - 2 numbers up to 10,000,000
	To use the less than, greater than and equals symbols to compare numbers and pictorial representations of numbers - 2 numbers up to 3 decimal places
	To order numbers and pictorial representations of numbers- 4 numbers including decimals up to 10,000,000
	To order numbers - 4 numbers including decimals up to 10,000,000
	To round any number up to 1,000,000 to the nearest 10, 100 or 1000.
	To round any number up to 10,000,000 to the nearest 10,000, 100,000 or 1,000,000
	To round to the nearest whole number and tenth (including in context e.g. nearest pound).
	To place numbers with a range of intervals including negative numbers on a number line
	To use negative numbers in context

	Year 6 objectives
<p>Four operations 3 weeks - some of these lessons may take longer than one lesson or may be practical</p> <p>Teacher notes</p>	To add numbers using column addition up to 10,000,000 (including problems)
	To add numbers including decimals in context (money and decimals)
	To subtract numbers using column subtraction up to 10,000,000 (including problems)
	To subtract numbers including decimals in context (money and decimals)

<ul style="list-style-type: none"> • Ensure you are always using place value hats on all work presented in books. • Decimal places have a box of their own. • Calculations completed down the page, not across. • On addition, subtraction, multiplication and division use estimation within teacher modelled answers • Encourage children to check answers in green pen using inverse next to the calculation. • When solving problems children/teacher should use 5 steps flow map. (teacher to support/model step one and two for Year 5). • When dividing by 10, 100 and 1000 starting with decimals allows them to further their understanding of decimal places. • When teaching multiplication refer to Year 4 method for pictorial • When completing any multiplication/division encourage children to write multiplication down the side. <p>Place value hats...</p> <p>M 100 10 th h t o . 1/10 1/100 Th th</p>	To solve multi step problems within context choosing the appropriate method.
	To multiply whole numbers and decimals by 10
	To multiply whole numbers including decimals by 10, 100 and 1000
	To divide decimal numbers by 10, 100, 1000.
	To divide whole numbers and decimals by 10, 100 and 1000
	To multiply 4 by 1 digit number including an exchange.
	To multiply 4 by 2-digit numbers including exchanges
	To divide a 4 by 1-digit number including pictorial representations without remainder. May not be completed in books.
	To divide a 4 by 1-digit number without remainder.
	To divide a 4 by 1-digit number with remainder. Remainders need to be completed as decimals.
To divide a 4 by 2-digit number with remainder. Remainders need to be completed as decimals.	
To solve multi step problems including all four operations within context choosing the appropriate method.	

	Year 6 objectives
<p>Properties of angles</p> <p>1 weeks - some of these lessons may take longer than one lesson or may be practical</p> <p>Over learner key facts e.g. angles around a point is 360.</p>	To identify and recall different types of angles Within this lesson how to read and use a protractor
	To estimate and measure angles (allow within 2 degrees).
	To estimate and measure angles (allow within 2 degrees) including reflex angles
	To draw angles to a given point including reflex
	To draw a range of shapes (e.g. quadrilaterals and triangles with measurements provided (to nearest mm)

Year Six Maths Planning Guidance
2025 to 2026

Year 6	
These are suggestions and do not all need to be individual lessons and multiple can be taught	
Strand	Suggested Small Steps
Number and Place Value	<p>Numbers to 10,000</p> <p>Numbers to 100,000</p> <p>Numbers to a million</p> <p>Read and write numbers to 10 million</p> <p>Compare and order any number</p> <p>Round numbers to 10, 100 and 1,000</p> <p>Round any number</p> <p>Negative numbers (in context)</p> <p>Negative numbers (more abstract)</p> <p>Solve number and practical problems for all of above</p>



Year 6

These are suggestions and do not all need to be individual lessons and multiple can be taught

Strand	Suggested Small Steps

Add whole numbers with more than 4 digits
Subtract whole numbers with more than 4 digits
Inverse operations (addition and subtraction)
Multi-step addition and subtraction problems
Add and subtract integers

Multiply 4-digits by 1-digit
Multiply 2-digits (area model)
Multiply 2-digits by 2-digits
Multiply 3-digits by 2-digits
Multiply up to a 4-digit number by a 2-digit number
Divide 4-digits by 1-digit
Divide with remainders
Short division
Division using factors
Long division
Factors
Common factors
Common multiples
Primes to 100
Squares and Cubes
Order of operations
Mental calculations and estimation
Reason from known facts

Year 6	
These are suggestions and do not all need to be individual lessons and multiple can be taught	
Strand	Suggested Small Steps
Ratio and Proportion	<p>Using ratio language</p> <p>Ratio and fractions</p> <p>Introducing the ratio symbol</p> <p>Calculating ratio activity</p> <p>Calculating ratio</p> <p>Using scale factors</p> <p>Calculating scale factors</p> <p>Ratio and proportion problems</p>
Fractions	<p>Equivalent fractions</p> <p>Simplify fractions using common multiples</p> <p>Improper fractions to mixed numbers</p> <p>Mixed numbers to improper fractions</p> <p>Fractions on a number line</p> <p>Compare and order (denominator)</p> <p>Compare and order (numerator)</p> <p>Add and subtract fractions</p> <p>Add mixed numbers</p> <p>Subtract mixed numbers</p> <p>Mixed addition and subtraction</p> <p>Multiply fractions by integers</p> <p>Multiply fractions by fractions</p> <p>Divide fractions by integers</p> <p>Four rules with fractions</p> <p>Fraction of an amount</p> <p>Fraction of an amount - find the whole</p> <p>Decimals as fractions</p> <p>Fractions to decimals</p> <p>Decimal places and multiply and divide by 10, 100 and 1000</p> <p>Understand percentages</p> <p>Fractions to percentages</p> <p>Equivalent FDP</p> <p>Order FDP</p> <p>Percentage of an amount</p>

These are suggestions and do not all need to be individual lessons and multiple can be taught

Strand Suggested Small Steps

Percentages (missing values)
 Percentages as comparisons
 Decimals up to 2 d.p.
 Understand thousandths
 Three decimal places
 Multiply by 10, 100 and 1,000
 Divide by 10, 100 and 1,000
 Multiply decimals by integers
 Divide decimals by integers
 Division to solve problems

Geometry: Shape & Position and Direction

The first quadrant
 Four quadrants
 Translations
 Reflections

 Shapes — area
 Area and perimeter
 Area of a triangle
 Area of a parallelogram
 What is volume?
 Volume - counting Cubes
 Volume of a cuboid

Year 6	
These are suggestions and do not all need to be individual lessons and multiple can be taught	
Strand	Suggested Small Steps
	Measure with a protractor Draw lines and angles accurately Introduce angles Angles on a straight line Angles around a point Calculate angles Vertically opposite angles Angles in a triangle Angles in a triangle - special cases Angles in a triangle - missing angles Angles in special quadrilaterals Angles in regular polygons Draw 2D shapes accurately measuring angles Recognise, describe, draw nets of 3-D shapes Compare and classify shapes Circles including, radius, diameter and circumference
Measurement: Length/Height	Metric measures Convert metric measures Calculate with metric measures Imperial measures Solve problems involving the calculation and conversion of units of measure
Measurement: Weight/Vol	Use, read, write and convert between standard units, converting measurements of length, mass, volume and time Convert between miles and kilometres
Measurement: money	

Year 6	
These are suggestions and do not all need to be individual lessons and multiple can be taught	
Strand	Suggested Small Steps
Measurement: Time	
Statistics: Graphs and Charts	<p>Line graphs</p> <p>Read and interpret pie charts</p> <p>Draw pie charts</p> <p>Mean and average</p>
Algebra	<p>Find a rule - one step</p> <p>Find a rule - two step</p> <p>Forming expressions</p> <p>Substitution</p> <p>Equivalent expressions</p> <p>Formulae</p> <p>Missing number problems</p> <p>Forming equations</p> <p>Solve simple one-step equations</p> <p>Solve two-step equations</p> <p>Find pairs of values</p> <p>Linear sequences</p>