SMALLS STEPS PROGRESSIONS OF CURRICULAR SUBSTANTIVE KNOWLEDGE
Maths

MATHS NUMBER TOPICS- PLACE VALUE, DECIMALS AND FRACTIONS

PHASE	Cycle Year	PLACE VALUE & DECIMALS	FRACTIONS
Rec / Y1/ Y2	Rec	TBC	
	Y1	• Recap/ reteach previous year's content forgotten • Sort objects • Count objects • Count objects from a larger group • Represent objects • Recognise numbers as words • Count on from any number • 1 more • Count backwards within 10 • 1 less • Compare groups by matching • Fewer, more, same • Less than, greater than, equal to • Compare numbers • Order objects and numbers • The number line • Count forwards and backwards and write numbers to 20 • One more one less • Compare groups of objects • Compare numbers • Order groups of objects • Order numbers • CONSOLIDATION • Count in 2s • Count in 5s • Counting to 100 • Counting forwards and backwards within 100 • One more, one less	• Find a half • Find a quarter
	Y2	• Recap/ reteach previous year's content forgotten • Numbers to 20 • Count objects to 100 by making 10s • Recognise tens and ones • Use a place value chart • Partition numbers to 100 • Write numbers to 100 in words • Flexibly partition numbers to 100 • Write numbers to 100 in expanded form • 10s on the number line to 100 • 10s and 1s on the number line to 100 • Estimate numbers on a number line • Compare objects • Compare numbers • Order objects and numbers • Count in 2s, 5s and 10s • Count in 3s	• Make equal parts • recognise a half • find a half • recognise a quarter • find a quarter • recognise a third • find a third • unit fractions • non unit fractions • equivalence of ½ and 2/4. • find ¾ • count in fractions.
Year 3/4	Y3	• Recap/ reteach previous year's content forgotten • Represent numbers to 100 • Partition numbers to 100 • Number line to 100 • Hundreds • Represent numbers to 1,000 • Partition numbers to 1,000 • Flexible partitioning of numbers to 1000 • Hundreds, tens and ones • Find 1, 10 or 100 more or less • Number line to 1,000 • Estimating on a number line to 1,000 • Compare numbers to 1,000 • Order numbers to 1,000 • Count in 50s	• Making the whole • Concept of fractions as a number in their own right • Tenths • Count in tenths • Fractions on a number line • Compare fractions • Order fractions • Add fractions • Subtract fractions • Fractions of a set of objects (1) • Fractions of a set of objects (2) • Fractions of a set of objects (3)
	Y4	• Recap/ reteach previous year's content forgotten • Represent numbers to 1,000 • Partition numbers to 1,000 • Number line to 1,000 • Thousands • Represent numbers to 10,000 • Partition numbers to 10,000 • Flexible partitioning of numbers to 10,000 • Find 1, 10, 100, 1,000 more or less • Number line to 10,000 • Estimate on a number line to 10,000 • Compare numbers to 10,000 • Order numbers to 10,000 • Roman numerals • Round to the nearest 10 • Round to the nearest 100 • Round to the nearest 1,000 • Round to the nearest 10, 100 or 1,000	• Recap/ reteach previous year's content forgotten • Count in fractions • Fractions greater than 1 • Add 2 or more fractions • Subtract 2 fractions • Subtract from whole amounts

Year 5/6	Y5	• Recap/ reteach previous year's content forgotten • Roman numerals to 1,000 • Numbers to 10,000 • Numbers to 100,000 • Numbers to 1,000,000 • Read and write numbers to 1,000,000 • Powers of 10 • 10/100/1,000/10,000/100,000 more or less • Partition numbers to 1,000,000 • Number line to 1,000,000 • Compare and order numbers to 100,000 • Compare and order numbers to 1,000,000 • Round to the nearest 10, 100 or 1,000 • Round within 100,000 • Round within 1,000,000	• Recap/ reteach previous year's content forgotten • Find fractions equivalent to a unit fraction • Find fractions equivalent to a non-unit fraction Recognise equivalent fractions • Convert improper fractions to mixed numbers Convert mixed numbers to improper fractions Compare fractions less than 1 • Order fractions less than 1 • Compare and order fractions greater than 1 • Add and subtract fractions with the same denominator • Add fractions within 1 • Add fractions with total greater than 1 • Add to a mixed number • Add two mixed numbers • Subtract fractions • Subtract from a mixed number • Subtract from a mixed number - breaking the whole Subtract two mixed numbers
	Y6	• Recap/ reteach previous year's content forgotten • Numbers to 1,000,000 • Numbers to 10,000,000 • Read and write numbers to 10,000,000 • Powers of 10 • Number line to 10,000,000 • Compare and order any integers • Round any integers • Negative numbers	• Equivalent fractions and simplifying • Equivalent fractions on a number line • Compare and order (denominator) • Compare and order (numerator) • Add and subtract simple fractions • Add and subtract any two fractions • Add mixed numbers • Subtract mixed numbers • Multi-step problems
Secondary School	KS3	To be added by GT	To be added by GT

MATHS NUMBER TOPICS- CALCULATION

PHASE	Cycle Year	ADDITION & SUBTRACTION	MULTIPLICATION & DIVISION
Rec/ Y1/Y2	Rec	TBC- Mastering Number ELG Mathematics: Number • Automatically recall (without reference to rhymes, counting or other aids) number bonds up to 5 (including subtraction facts) and some number bonds to 10, including double facts. Mathematics: Numerical Patterns • Compare quantities up to 10 in different contexts, recognising when one quantity is greater than, less than or the same as the other quantity. • Explore and represent patterns within numbers up to 10, including evens and odds, double facts and how quantities can be distributed equally.s	TBC Mastering number
	Y1	• Recap/ reteach previous year's content forgotten • Introduce parts and wholes • Part-whole model • Write number sentences • Fact families - addition facts • Number bonds within 10 • Systematic number bonds within 10 • Number bonds to 10 • Addition - add together • Addition - add more • Addition problems • Find a part • Subtraction - find a part • Fact families - the eight facts • Subtraction - take away/crossing out (How many left?) • Subtraction - take away (How many left?) • Subtraction on a number line • Add or subtract 1 or 2 • CONSOLIDATION • Compare number sentence • Add by counting on within 20 • Add by making 10 • Subtraction - not crossing 10 • Subtraction - not crossing 10 (counting back) • Subtraction - crossing 10 (1) • Subtraction - crossing 10 (2) • Related facts	• Recap/ reteach previous year's content forgotten • Count in 2s • Count in 5s • Count in 10s • Make equal groups • Add equal groups • Make arrays • Make doubles • Make equal groups – grouping • Make equal groups - sharing
	Y2	• Recap/ reteach previous year's content forgotten • Bonds to 10	• Recap/ reteach previous year's content forgotten

		• Fact families – addition and subtraction bonds within 20 • Related facts • Bonds to 100 (tens) • Add and subtract 1s • Add by making 10 • Add three 1-digit numbers • Add to the next 10 • Add across a 10 • Subtract across 10 • Subtract from a 10 • Subtract a 1-digit number from a 2-digit number • (across a 10) • 10 more, 10 less • Add and subtract 10s • Add two 2-digit numbers (not across a 10) • Add two 2-digit numbers (across a 10) • Subtract two 2-digit numbers (not across a 10) • Subtract two 2-digit numbers (across a 10) • Mixed addition and subtraction • Compare number sentences • Missing number problems	• Multiplication sentences using the x symbol • Multiplication sentences from pictures • Use arrays • 2 times-table • 5 times-table • 10 times-table • Make equal groups – sharing • Make equal groups - grouping • Divide by 2 • Divide by 5 • Divide by 10
Year 3/4	Y3	• Recap/ reteach previous year's content forgotten • Apply number bonds within 10 • Add and subtract 1s • Add and subtract 10s • Add and subtract 100s • Spot the pattern • Add 1s across a 10 • Add 10s across a 100 • Subtract 1s across a 10 • Subtract 10s across a 100 • Make connections • Add two numbers (no exchange) • Subtract two numbers (no exchange) • Add two numbers (across a 10) • Add two numbers (across a 100) • Subtract two numbers (across a 10) • Subtract two numbers (across a 100) • Add 2-digit and 3-digit numbers • Subtract a 2-digit number from a 3-digit number • Complements to 100 • Estimate answers • Inverse operations • Make decisions	• Recap/ reteach previous year's content forgotten • Multiplication - equal groups • Use arrays • Multiples of 2 • Multiples of 5 and 10 • Sharing and grouping • Multiply by 3 • Divide by 3 • The 3 times-table • Multiply by 4 • Divide by 4 • The 4 times-table • Multiply by 8 • Divide by 8 • The 8 times-table • The 2, 4 and 8 times-tables
	Y4	• Add and subtract 1s, 10s, 100s and 1,000s • Add up to two 4-digit numbers - no exchange • Add two 4-digit numbers - one exchange • Add two 4-digit numbers– more than one exchange • Subtract two 4-digit numbers - no exchange • Subtract two 4-digit numbers - one exchange • Subtract two 4-digit numbers – more than one exchange • Efficient subtraction • Estimate answers • Checking strategies	• Recap/ reteach previous year's content forgotten. RESTART BOOKLETS WITH 8s AS RECAP • Multiples of 3 • Multiply and divide by 6 • 6 times-table and division facts • Multiply and divide by 9 • 9 times-table and division facts • The 3, 6 and 9 times-tables • Multiply and divide by 7 • 7 times-table and division facts • 11 times-table and division facts • 12 times-table and division facts • Multiply by 1 and 0 • Divide by 1 and itself • Multiply three numbers
Year 5/6	Y5	• Mental strategies • Add whole numbers with more than four digits • Subtract whole numbers with more than four digits • Round to check answers • Inverse operations (addition and subtraction) • Multi-step addition and subtraction problems • Compare calculations • Find missing numbers	• Recap/ reteach previous year's content forgotten. • Multiples • Common multiples • Factors • Common factors • Prime numbers • Square numbers • Cube numbers • Multiply by 10, 100 and 1,000 • Divide by 10, 100 and 1,000 • Multiples of 10, 100 and 1,000
	Y6	• Add and subtract integers • Common factors • Common multiples • Rules of divisibility • Primes to 100 • Square and cube numbers • Multiply up to a 4-digit number by a 2-digit number • Solve problems with multiplication • Short division • Division using factors	• Recap/ reteach previous year's content forgotten. • Cube numbers • Reason from known facts • Multiply fractions by integers • Multiply fractions by fractions • Divide a fraction by an integer • Divide any fraction by an integer • Mixed questions with fractions • Fraction of an amount

		• Introduction to long division • Long division with remainders • Solve problems with division • Solve multi-step problems • Order of operations • Mental calculations and estimation • Reason from known facts	• Fraction of an amount - find the whole
Secondary School	KS3	To be added by GT	To be added by GT

MATHS NON-NUMBER TOPICS

PHASE	Cycle Year	GEOMETRY	STATISTICS	MEASUREMENT: MONEY	MEASUREMENT	OTHER TOPICS (Non-RTP)
Rec/ Y1/Y2	Rec	Autumn: Phase 1: Just Like Me! - Compare Size, Mass & Capacity - Exploring Capacity Autumn: Phase 2: It's Me 1 2 3! - Circles and Triangles - Positional Language Autumn: Phase 3: Light and Dark - Shapes with 4 sides - Time Spring: Phase 4: Alive in 5! - Compare Mass - Compare Capacity Spring: Phase 5: Growing 6.7, 8 - Length & Height - Time Spring: Phase 6: Building 9 and 10 - 3D Shape - Pattern Summer: Phase 7: To 20 and Beyond - Spatial Reasoning - Match, Rotate, Manipulate Summer: Phase 8: First Then Now - Spatial Reasoning - Compose and Decompose Summer: Phase 9: Find My Patter - Spatial Reasoning - Visualise and Build Summer: Phase 10: On The Move - Spatial Reasoning - Mapping ELG There are no early learning goals that directly relate to shape, space and measure objectives. However, children will have experienced rich opportunities to develop their spatial reasoning skills in shape, space and measure. Reception (Development Matters) Select, rotate and manipulate shapes to develop spatial reasoning skills. Compose and decompose shapes so that children recognise a shape can have other shapes within it, just as numbers can. Continue, copy and create repeating patterns. Compare length, weight and capacity				
Y1		• Recap/ reteach previous year's content forgotten. • Recognise and name 3D shapes • Sort 3D shapes • Recognise and name 2D shapes • Sort 2D shapes		• Counting in Coins		• Length and height unit • Weight and volume unit • Position and direction unit • Time unit
Y2		• Recap/ reteach previous year's content forgotten. • Recognise 2-D and 3-D shapes • Count sides on 2-D shapes • Count vertices on 2-D shapes • Draw 2-D shapes • Sort 2-D shapes • Count faces on 3-D shapes • Count edges on 3-D shapes • Count vertices on 3-D shapes • Sort 3-D shapes • Make patterns with 3-D shapes	• Draw pictograms (2, 5 and 10) • Interpret pictograms (2, 5 and 10) • Block diagrams	• Recap/ reteach previous year's content forgotten. • Compare money • Find the total • Find the difference • Find change • Two-step problems	• Recap/ teach previous years content forgotten. • Four operations with lengths • Problem solving with lengths • Measure mass in grams • Measure mass in kilograms • Millilitres • Temperature	• Fractions unit
Year 3/4	Y3	• Recap/ reteach previous year's content forgotten. • Turns and angles • Right angles in shapes • Recognise and describe 2-D shapes • Parallel and perpendicular • Recognise and describe 2-D shapes		• Recap/ reteach previous year's content forgotten. • Check answers • Add money • Subtract money • Give change • Convert pounds and pence	• Recap/ reteach previous year's content forgotten. • Compare lengths • Equivalent lengths (m and cm) • Equivalent lengths (mm and cm)	• Statistics unit • Time unit

					• Measure mass (1) • Measure mass (2) • Measure capacity (1) • Measure capacity (2) • Compare capacity	
	Y4	• Recap/ reteach previous year's content forgotten. • Describe position • Draw on a grid • Move on a grid • Describe movement on a grid • Triangles • Quadrilaterals • Lines of symmetry • Complete a symmetric figure			• Recap/ reteach previous year's content forgotten. • Measure perimeter • Perimeter on a grid • Perimeter of a rectangle • Perimeter of rectilinear shapes	• Decimals unit • Area unit • Time unit • Statistics unit • Money unit
Year 5/6	Y5	• Measuring angles in degrees • Measuring with a protractor (1) • Measuring with a protractor (2) • Drawing lines and angles accurately			• Recap/ reteach previous year's content forgotten. • Area of rectangles • Area of compound shapes • Area of irregular shapes • Kilograms and kilometres • Millimetres and millilitres • Metric units • Imperial units • Telling the time (units from before) • Converting units of time • Timetables	• Statistics unit • Measurement: volume unit
	Y6	• Draw shapes accurately • Draw nets of 3-D shapes	Spring 6 Ratio • Using ratio language • Ratio and fractions • Introducing the ratio symbol • Calculating ratio • Using scale factors • Calculating scale factors • Ratio and proportion problems	Spring 3 Algebra • Find pairs of values (1) • Find pairs of values (2)	Metric measures Convert metric measures Calculate with metric measures Miles and kilometres Imperial measure	• Percentages unit • Statistics unit • Position and direction unit • Perimeter, area and volume unit
Secondary School	KS3					