Sandridge School Maths Curriculum Overview

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Reception	**Counting and cardinality** **2D shape and pattern** **Measures** Size/weight **Composition** (1 more/1 less) **Number rhymes** **Addition** **Problem solving** **Subtraction** **Mastering number:** Subitising within 3; counting skills; explore how all numbers are made of 1s; composition of 3 & 4; subitise objects and sounds; comparison of sets 'just by looking'; use of comparative language (more / fewer)	**Spatial Awareness/position** **Counting back** **Measures** **Order and sequence events** **Number counting** **Subtraction** **3D Shape** **Measures/size** Weight; Comparison more or less **Mastering number:** Counting skills; the five-ness of 5 using die pattern for 5 and 1 hand; comparison of sets by matching; using language of comparison; explore the concept of 'whole and 'part'; composition of 3,4 and 5; practise counting objects; match numerals and quantities within 10; verbal counting beyond 20	**Number** Numerical patterns; Comparison; Counting; Subitising; Cardinality; Composition; Adding; Number bonds to 5; Subtraction facts **Patterns** **Doubling** **Measure** Comparison; Length; Comparisons; Weight; Sequencing events **Spatial awareness** (links to maps in Literacy) **Problem solving** **Mastering number:** Subitise 5 focusing on die patterns; match numerals to quantities (within 5); counting focus on ordinality and 'staircase' pattern; see that each number is one more than the previous number; focus on 5; focus on 6 & 7 as 'five and a bit'; compare sets and use language of comparison (more than, fewer than, equal number to); make unequal sets equal	**Measures** **Number** I less than; Number bonds; Addition; Subtraction; How quantities can be distributed equally (sharing/ halving); Counting; Subitising; Composition; Number bonds to 5/10 **Patterns** Numerical patterns **Measure** Using money **Problem solving** **Mastering number:** Focus on the 'staircase' pattern and ordering numbers; focus on ordering of numbers to 8; use language of 'less than'; focus on 7; doubles – explore how some numbers can be made with 2 equal parts; sorting numbers according to attributes – odd & even	**Shape** Reasoning; Problem solving **Number** Subitising/counting; Number; Adding/Doubling; Greater than/less than; Bonds to 5/10 **Measures** Length **Mastering number:** Counting larger sets and things that cannot be seen; subitising to 6 including in structured arrangements composition of 5 and a bit; composition of 10; comparison linked to ordinality; track games	**Number** Number bonds to 5/10; Numerical patterns; Reasoning with number; Analysing and recording counting; Adding and subtraction facts; Subitising; Doubling using dice activities; Distributing quantities equally; Counting; 11-19 number composition; Pattern /counting system; Missing numbers; Number line activities; Odds/evens; Composition **Statistics** Block graph **Measures** Capacity **Shape** **Mastering number:** Subitise to 5 and introduce Rekenrek; review and assess ELG: automatic recall of bonds to 5, comparison of numbers to 10, comparison, number patterns, counting
Year 1	**Number & Place Value** Counting Identifying, representing and estimating numbers Comparing numbers Reading and writing numbers Problem solving **Addition and Subtraction** Number bonds Mental calculation Read, write & construct mathematical statements Problem solving	**Multiplication and Division** Multiplication and division facts Mental calculations Problem solving **Shape** Identifying shapes and their properties Comparing and classifying **Pattern** Order and arrange **Fractions** Recognising fractions of shapes and quantities	**Measures** Measuring and calculating Comparing & estimating Money **Position, direction and movement** Turns **Measures** Telling the time Converting Comparing and estimating **Handling Data** Interpreting and constructing data	**Number & Place Value** Counting Identifying, representing and estimating numbers Comparing numbers Reading and writing numbers Problem solving **Addition and Subtraction** Number bonds Mental calculation Read, write & construct mathematical statements Problem solving	**Multiplication and Division** Multiplication and division facts Mental calculations Problem solving **Shape** Identifying shapes and their properties Comparing and classifying **Pattern** Order and arrange **Fractions** Recognising fractions of shapes and quantities	**Measures** Measuring and calculating Comparing & estimating Money **Position, direction and movement** Turns **Measures** Telling the time Converting Comparing and estimating **Handling Data** Interpreting and constructing data
Year 2 & Year 3	**Place value** Counting; identifying, representing and estimating numbers; understanding place value; comparing numbers; rounding; reading and writing numbers; comparing numbers; problem solving **Addition and subtraction** Mental calculation; written methods; inverse operations, estimating and checking answers; problem solving.	**Multiplication and division** Multiplication and division facts; mental calculations; written calculation; inverse operations, estimating and checking answers; problem solving. **Fractions** Counting in fractional stages; recognising fractions; comparing fractions; equivalence; calculations involving fractions; problem solving. **Shape** Identifying shapes and their properties; compare & sort shapes; drawing and constructing shapes; angles and turns; position, direction & movement (rotation).	**Pattern** Order & arrange mathematical objects in patterns & sequences. **Measure** Measuring and calculating; comparing and estimating; money; telling the time; converting measures and time. **Data** Interpreting and constructing data; solving problems.	**Place value** Counting; identifying, representing and estimating numbers; understanding place value; comparing numbers; rounding; reading and writing numbers; comparing numbers; problem solving **Addition and subtraction** Mental calculation; written methods; inverse operations, estimating and checking answers; problem solving.	**Multiplication and division** Multiplication and division facts; mental calculations; written calculation; inverse operations, estimating and checking answers; problem solving. **Fractions** Counting in fractional stages; recognising fractions; comparing fractions; calculations involving fractions; problem solving . **Shape** Identifying shapes and their properties; compare & sort shapes; drawing and constructing shapes; angles and turns; position, direction & movement (rotation).	**Pattern** Order & arrange mathematical objects in patterns & sequences. **Measure** Measuring and calculating; comparing and estimating; money; telling the time; converting measures and time. **Data** Interpreting and constructing data; solving problems.

Year 4	**Place value** Counting; identifying, representing and estimating numbers; understanding place value; comparing numbers; rounding; reading and writing numbers; comparing decimals; rounding decimals; problem solving **Addition and subtraction** Written methods; inverse operations, estimating and checking numbers; problem solving.	**Multiplication and division** Multiplication and division facts; mental calculations; properties of numbers: multiples, factors, primes, square and cube numbers; written calculation; inverse operations; calculations involving decimals; problem solving. **Fractions** Counting in fractional stages; recognising fractions; equivalence; calculations involving fractions; problem solving. **Shape** Identifying shapes and their properties; comparing and classifying; drawing and construction of shapes. **Angles**	**Position, direction and movement** **Measure** Measuring and calculating; comparing and estimating money; telling the time; converting measures and time. **Data** Interpreting and constructing data; solving problems.	**Place value** Counting; identifying, representing and estimating numbers; understanding place value; comparing numbers; rounding; reading and writing numbers; comparing decimals; rounding decimals; problem solving **Addition and subtraction** Written methods; inverse operations, estimating and checking numbers; problem solving.	**Multiplication and division** Multiplication and division facts; mental calculations; properties of numbers: multiples, factors, primes, square and cube numbers; written calculation; inverse operations; calculations involving decimals; problem solving. **Fractions** Counting in fractional stages; recognising fractions; equivalence; calculations involving fractions; problem solving. **Shape** Identifying shapes and their properties; comparing and classifying; drawing and construction of shapes. **Angles**	**Position, direction and movement** **Measure** Measuring and calculating; comparing and estimating money; telling the time; converting measures and time. **Data** Interpreting and constructing data; solving problems.
Year 5	**Place Value** Interpreting numbers; Counting forwards and backwards; Reading and writing numbers up to 1,000,000; Comparing and ordering numbers; Rounding; Roman numerals; Problem solving; Comparing and rounding decimals **Addition and Subtraction** Add and subtract numbers mentally; Use written methods for whole numbers with more than 4 digits; Use rounding to check answers; attempt multi-step problems **Multiplication and Division** Draw on mental arithmetic; Identify multiples and factors; Prime numbers; Square and cube numbers; Written methods for 4 by one or two digit multiplication; Written method for dividing four digit numbers; Problem solving	**Fractions** Recognise thousandths; compare and order same denominator fractions; Equivalent fractions; Read and write decimal numbers as fractions; Recognise percentages **Shape** Identify 3D shapes; Properties of shapes; Missing lengths; Identify angles around points, straight lines and multiples of 90°; Recognise acute, obtuse and reflex angles; Irregular polygons; Draw and measure angles	**Position and Direction** Identify, describe and represent the position of a shape; Translation; Plot specified points and draw shapes **Measures** Length; Mass; Volume/ Money; Use all four operations involving measures; Measure and calculate the perimeter of shapes; Calculate and compare the area of quadrilaterals; Convert between different units of measure; Understand approximate equivalents between metric and imperial; Estimate volume and capacity; Time **Handling Data** Complete, read and interpret information in tables; Timetables; Draw line graphs; Solve problems involving data	**Place Value** Interpreting numbers; Counting forwards and backwards; Reading and writing numbers up to 1,000,000; Comparing and ordering numbers; Rounding; Roman numerals; Problem solving; Comparing and rounding decimals **Addition and Subtraction** Add and subtract numbers mentally; Use written methods for whole numbers with more than 4 digits; Use rounding to check answers; attempt multi-step problems **Multiplication and Division** Draw on mental arithmetic; Identify multiples and factors; Prime numbers; Square and cube numbers; Written methods for 4 by one or two digit multiplication; Written method for dividing four digit numbers; Problem solving	**Fractions** Recognise thousandths; compare and order same denominator fractions; Equivalent fractions; Read and write decimal numbers as fractions; Recognise percentages **Shape** Identify 3D shapes; Properties of shapes; Missing lengths; Identify angles around points, straight lines and multiples of 90°; Recognise acute, obtuse and reflex angles; Irregular polygons; Draw and measure angles	**Position and Direction** Identify, describe and represent the position of a shape; Translation; Plot specified points and draw shapes **Measures** Length; Mass; Volume/ Money; Use all four operations involving measures; Measure and calculate the perimeter of shapes; Calculate and compare the area of quadrilaterals; Convert between different units of measure; Understand approximate equivalents between metric and imperial; Estimate volume and capacity; Time **Handling Data** Complete, read and interpret information in tables; Timetables; Draw line graphs; Solve problems involving data
Year 6	**Number and Place Value** Negative numbers; Read, write, order and compare numbers; Place value; Identify, represent and estimate; Rounding; Properties of number solve problems (all four operations); Number problems; comparing decimals; rounding decimals **Addition and Subtraction** Number problems; Add / subtract to solve problems; estimate, use inverses and check; order of operations; **Multiplication and Division** Multiply/divide mentally; multiples, factors, square, cube, prime; BODMAS; Inverse; written calculation for multiplication/ division; calculating decimals; problem solving **Algebra** simple formulae; linear sequences; missing number problems; satisfy equations; finding possibilities for equations	**Fractions** Comparing and ordering fractions; Equivalent fractions; simplify; decimal/fraction equivalence; add and subtract fractions; multiply proper fractions; divide by whole numbers **Shape** Classifying shapes & properties; find unknown angles; recognise angles; construct 2D shapes with given dimensions; illustrate and name parts of a circle; recognise, describe and build 3D shapes with nets **Position and Direction** Coordinates; translations	**Measures** Calculation and conversion of units of measures (including decimals); miles and kilometre conversion; perimeter, area and volume **Handling Data** Interpret and construct line graphs and pie charts; calculate mean **Ratio and Proportion** Solve problems with relative sizes; calculate percentages of amounts; use the scale factor; solve problems involving unequal sharing and grouping	**Number and Place Value** Negative numbers; Read, write, order and compare numbers; Place value; Identify, represent and estimate; Rounding; Properties of number solve problems (all four operations); Number problems; comparing decimals; rounding decimals **Addition and Subtraction** Number problems; Add / subtract to solve problems; estimate, use inverses and check; order of operations; **Multiplication and Division** Multiply/divide mentally; multiples, factors, square, cube, prime; BODMAS; Inverse; written calculation for multiplication/ division; calculating decimals; problem solving **Targeted planning for the needs of the class.**	**Targeted planning for the needs of the class.** **Algebra** simple formulae; linear sequences; missing number problems; satisfy equations; finding possibilities for equations **Fractions** Comparing and ordering fractions; Equivalent fractions; simplify; decimal/fraction equivalence; add and subtract fractions; multiply proper fractions; divide by whole **Shape** Classifying shapes & properties; find unknown angles; recognise angles; **Measures** Calculation and conversion of units of measures (including decimals); miles and kilometre conversion; perimeter, area and volume	**Handling Data** Interpret and construct line graphs and pie charts; calculate mean **Ratio and Proportion** Solve problems with relative sizes; calculate percentages of amounts; use the scale factor; solve problems involving unequal sharing and grouping