Maths Curriculum Progression 2025 - 2026

Our goal for Maths education is that children are able to solve increasingly complex routine and non-routine problems, developing:

- a deep, secure and adaptable conceptual understanding;
- fluency with mathematical fundamentals and procedures; and
- proficiency with reasoning, application and use of mathematical vocabulary.

William Tyndale Primary School

Maths Whole School Overview 2025 2026

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- a deep, secure and adaptable conceptual understanding;
- fluency with mathematical fundamentals and procedures; and
- proficiency with reasoning, application and use of mathematical vocabulary.

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Whole school days/events linked to Maths		**Primary Maths Challenge (Y5&6)** **Number Facts Bee**	**Multiplication Bee**		**National Numeracy Day**	**Number Facts Bee** **First Maths Challenge**
Right of the month	*September: Article 28 – the right to learn and go to school* *October: Article 12 – the right to be listened to*	*November: Article 19 – the right not to be harmed and to be looked after and kept safe* *December: Article 13 – the right to follow your own religion*	*January: Article 29 – the right to become the best you can be* *February: Article 42 – the right to learn about your rights*	*March: Article 7 – the right to a name and a nationality* *April: Article 24 – the right to food, water and medical care*	*April: Article 24 – the right to food, water and medical care* *May: Article 20 – the right to practice your own culture, language and religion*	*June: Article 22 – the right to special protection and help if you are a refugee* *July: Article 31 – the right to play and rest*
Skills Builder	*September: Listening* *October: Speaking*	*November: Teamwork* *December: GLOBAL GOALS*	*January: Problem Solving* *February: Staying Positive*	*March: Creativity* *April: GLOBAL GOALS*	*April: GLOBAL GOALS* *May: Aiming High*	*June: Leadership* *July: GLOBAL GOALS*
Nursery	Early number and shape through play, song and story	Early number and shape through play, song and story	In depth number 0-5 2D shape Sorting	Finding 1 more Addition Pattern	Finding 1 less Subtraction Measure	In depth number 6-10 2D shape
Reception	**Mastering Number** Counting Cardinality 1:1 correspondence Measures	**Mastering Number** Composition of number Shapes Time	**Mastering Number** number facts within 5 and 10 equal and unequal Measures	**Mastering Number** Odd and evens 3D shape Patterns Writing/reading number sentences	**Mastering Number** Doubles Number facts within 10 Spatial reasoning	**Mastering Number** Review Grouping Patterns
Year 1	Time Addition and Subtraction (composition of numbers 0-5)	Addition and subtraction (composition of numbers 6-10) Measure Geometry	Place Value Addition & Subtraction Measures	Addition and Subtraction Multiplication and Division	Division Fractions Time Statistics	Addition and Subtraction Place Value

Year 2	Place Value Addition and subtraction Time	Addition and subtraction Shape	Money Multiplication and Division Statistics	Multiplication and Division Geometry Measures	Fractions Time	Statistics Addition and Subtraction Measures Money
Year 3	Place Value Measures Addition and Subtraction	Addition and subtraction Multiplication & division	Geometry Fractions and Decimals Addition and Subtraction	Measure Multiplication and Division	Fractions and Decimals Measure Multiplication and Division	Money Addition and Subtraction Measures Statistics
Year 4	Place value Addition/subtraction Measures	Addition and Subtraction Area Multiplication and Division	Multiplication and Division Geometry	Fractions and Decimals	Fractions and Decimals Measure Statistics	Multiplication and Division Measure
Year 5	Place value Addition and Subtraction Multiplication and Division	Multiplication & Division Measures Fractions	Multiplication and Division Geometry Measures	Fractions and Decimals Measures Statistics Perimeter and Area	Decimals and Percentages Multiplication and Division	Decimals Place Value Measures
Year 6	Place Value 4 operations Measures	Fractions 4 operations	Ratio Algebra Geometry	Fractions, Decimals and Percentages Perimeter, Area, Volume Statistics	Geometry SATS revision and Prep	Money Sense Geometry Consolidation of 4 operations

In **Reception** we follow the Mastering Number programme from NCETM.

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Maths	**Mastering Number** • subitising • develop counting skills: cardinality; 1:1 correspondence In addition • size, mass and capacity, • exploring pattern	**Mastering Number** • spot smaller numbers 'hiding' within larger • develop concept of whole and parts In addition • Circles and triangles, positional language. • Shapes with 4 sides • Time	**Mastering Number** • Identify missing parts for numbers within 5 • explore '5 and a bit' in the structure of 6 and 7. • equal and unequal groups In addition • comparing mass and capacity. • Length and height	**Mastering Number** • 2 equal groups can be called double • recognising odd and even numbers In addition • 3D Shape • Pattern • using the symbols (+, - and =) • know the language 'altogether makes'	**Mastering Number** • continue work on doubles • different representations of numbers In addition • Spatial reasoning	**Mastering Number** • review of learning • subitising • Even and odd • patterns in number • recall of number facts within 3,4,5 and 10. In addition • Doubling, sharing, grouping • Spatial reasoning • Deepening understanding of patterns and relationships

These objectives are covered throughout the Reception year.

Number	**Shape, Space & Measure**
• I can compare measures and quantities using bigger/smaller, taller/shorter, longer/shorter accurately • I know numbers represent quantities in a group • I can count orally forwards past 20 and backwards from 10 • I can recognize the numerals for digits to 10. • I know the difference between whole and not whole • I know that the whole is bigger than part • I know that the numbers to 5 can be partitioned in different ways. • I can compare numbers up to 10 - i.e. 7 is more than 5. • I can use addition and subtraction to compare numbers - 5 is 2 less than 7, 7 is 3 more than 4. • I can read and write symbols (+, - and =) and know what they represent. • I know the language 'altogether makes' • I can find one more and one less than numbers to 10. • I know the odd and even numbers and doubles facts within 10 and how quantities can be distributed equally. • I can add in ones using practical resources. • I can subtract in ones using practical resources.	• I can use everyday vocabulary to describe mass, size, capacity, position or distance using vocab like longer /shorter /taller/ heavier/ lighter /further /less far/smaller. • I can use everyday language to describe shapes. • I can explore and talk about simple repeating patterns and notice errors.

Ready to Progress objectives are highlighted - please look at the DfE Mathematics guidance and the NCETM Exemplifications

Year 1 Maths lessons

Always look at the previous year objectives to see what gaps there may be for children within your class.

	Week 1 (3 days)	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8
A1	**Time** I can name and order the days in the week and the months in the year I can sequence events in chronological order using before, after, today, tomorrow etc.	**Baseline assessment** **check objectives:** ● I can write numbers from 1 to 20 in numerals ● I can count forwards to 20 ● I can count backwards from 20 ● I can reason about the location of numbers to 20 within the linear number system, including comparing using < > = **Sorting and part-whole** (checking 1:1 correspondence, ability to sort and articulate, use of part-whole language)			**Addition and Subtraction (composition of numbers 0-5)** ● I can read, write and interpret symbols (+-=) and know what they represent ● I know my addition and subtraction facts to 5 ● I can add and subtract in 1s using practical resources ● I can solve missing number problemsI recognise and know the value of 1p, 2p, 5p NUMBER BLOCKS			
A2	**Addition and Subtraction (composition of numbers 6-10)** ● I can read, write and interpret symbols (+-=) and know what they represent ● I can relate additive expressions and equations to real life ● I can develop fluency in addition and subtraction facts within 10. ● I can compose numbers to 10 from two parts, and partition numbers to 10 into parts ● I can recognise odd and even numbers ● I can add and subtract in 1s using practical resources ● I can add and subtract in ones using a structured number line, games etc ● I can solve missing number problems ● I recognise and know the value of 1p, 2p, 5p, 10p,				**Measures & Geometry** ● All measures objectives in practical contexts (revision from free play and maths meetings all year) ● I can compare and describe length and height using vocab longer/shorter etc ● I can compose 2D and 3D shapes from smaller shapes to match an example, including manipulating shapes to place them in particular orientations. ● I can recognise 2D and 3D shapes in different orientations and know that rectangles, triangles, cuboids and pyramids are not always similar to one another ● I can continue simple shape patterns			

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6
Sp1	**Place Value** ● I can count within 100 forwards and backwards, starting with any number ● I can identify one more/less than a given number ● I can read and write numbers from 1 to 100 in numerals ● Make a number up to 100 using physical resources ● I can count forwards and backwards through odd numbers ● I can continue simple number sequences and shape patterns		**Addition and Subtraction** ● I can use physical resources to add and subtract within 20 ● I can add O+O bridging 10 ● I can solve missing number problems		**Measures** can compare and describe weight and mass using vocab heavier/lighter than I can compare and describe capacity and volume using vocab full/empty/half full etc	ASSESSMENT WEEK I can name and order the days in the week and the months in the year I can sequence events in chronological order using before, after, today, tomorrow etc. I can recognise and name common 3D shapes
Sp 2	**Addition and Subtraction** I can subtract in tens and ones I can solve missing number problems I know my addition and subtraction facts for all numbers to 10 I can solve one step addition and subtraction problems using physical resources I recognise and know the value of coins up to £2.		**Multiplication** I know that multiplication is a number of equal groups I know the doubles of all numbers up to 10. I can count in multiples 2s, 5s and 10s from zero I recognise and know the value of coins up to £2. I can count forwards and backwards through odd numbers I can multiply using concrete objects or pictorial representations I can solve 1 step word problems involving multiplication and division using concrete resources or pictorial representations		**Division** I can divide using concrete objects and pictorial representations	
Sum 1	**Time** I can read and write the time on an analogue clock for o'clock and half past I can begin to record time using times and use language quicker, slower, earlier, later.	**Division** I can solve 1 step word problems involving multiplication and division using concrete resources or pictorial representations. I know the halves of all numbers to 10.	**Fractions** I know that a whole is something that has not been cut up. I know that a half is something that is cut into two equal pieces. I know the halves of all numbers to 10. I know that a quarter is something that has been cut into four equal pieces. I can describe position, direction and movement including whole, half, quarter and three quarter turns		Statistics I can begin making and interpret simple pictograms and tables I can answer a simple question about a pictogram or table	ASSESSMENT WEEK I can count forwards and backwards through odd numbers I can recognise even and odd numbers up to 20

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8 (3 days)
Sum 2	**Place Value** **<u>Recap</u>**: I can identify one more/less than a given number I can read and write numbers from 1 to 100 in numerals Make a number up to 100 using physical resources	• I can reason about the location of numbers to 20 within the linear number system, including comparing using < > = • I can relate additive expressions and equations to real life • I can count within 100 forwards and backwards, starting with any number • I can develop fluency in addition and subtraction facts within 10. • I can compose numbers to 10 from two parts, and partition numbers to 10 into parts			**Addition and Subtraction** I can use physical resources to add and subtract within 20 I can add O+O bridging 10 I can add in tens and 1s using a structured number line or other independent method (practical resources in 10s and 1s grid) I can subtract in tens and ones I can solve missing number problems I can solve one step addition and subtraction problems using physical resources I recognise and know the value of all coins up to £2.			

Year 2 Autumn Maths Overview

Ready to Progress objectives are highlighted - please look at the DfE Mathematics guidance and the NCETM Exemplifications

	Week 1 (3 days)	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8
A1	**Place Value** ● I can count forward and backwards to and from 100. ● I can understand the value of each digit in a 2-digit number and be able to partition numbers into 10s and 1s. ● I can partition 2-digit numbers into different combinations of 10s and 1s - 23 = 2 tens and 3 ones = 1 ten and 13 ones ● I can count in forward and back in tens from any number including crossing boundaries into hundreds ● I can partition 2-digit numbers and add using base 10 or practical resources without crossing boundaries ● I can compare and order numbers from 0 up to 100 using > < and = signs ● I can compare and order measures and record using < > and = ● I can reason about the location of any two-digit number within the linear number system, including identifying the previous and next multiple of 10 ● I can use place value and number facts to solve problems. ● I can count in 3s from zero					**Addition and Subtraction** ● I have secured my addition and subtraction facts to 10, through continued practice. ● know that subtraction and addition are opposites and that addition makes the answer greater and subtraction makes the answer smaller.	ASSESSMENT WEEK ● I am confident with all my addition and subtraction facts to numbers up to 15 ● I can find the relationships in number fact families	**Time** I can confidently recite the days of the week and months of the year.
A2	**Addition and Subtraction** ● I can add O+O bridging 10 ● I can add 3 small numbers confidently. ● I can estimate whether my answer is reasonable. ● I recognise the subtraction structure of 'difference' and answer questions of the form "How many more…?" ● I can use representations (triangle, bar model) to show the inverse to solve missing number problems for addition and subtraction. ● I can add and subtract TO and O within 100 by applying 1 digit addition and subtraction facts - 3+4 = 7, so 63 + 4 = 67, and 35 + 40 = 75 ● I can add 2 two-digit numbers with regrouping and show my method with concrete or pictorial representations. ● I know that addition can be done in any order (commutative) but subtraction cannot. ● I can add and subtract TO and TO within 100 by applying 1 digit addition and subtraction facts - 45 +23 = 40 + 20 + 5 + 3 = 60 + 8 = 68; 63 - 17 = 63 - 10-7 = 53 - 7 = 46				**Geometry** ● I can use precise language to describe properties of 2D and 3D shapes - sides, vertex/vertices; edges, vertex/vertices/ faces ● I can compare shapes by reasoning about similarities and differences in their properties.			

Year 2 Spring Maths Overview

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6
Sp1	**Money** ● I can solve problems involving adding and subtracting money (£p) ● I can recognise and use symbols for £ and p ● I can combine amounts to make a particular value e.g. make 3p using a 2p and a 1p ● I can find different combinations of coins that equal the same amounts ● I know the different denominations for coins and notes.	**Multiplication & Division** ● I can multiply using concrete objects, pictorial representations arrays and repeated addition ● I can identify doubles and halves up to 20. ● I can recall and use the multiplication and division facts for 2 and 10 times tables ● I can use x, / and = signs ● I can divide using concrete objects and pictorial representations, and arrays and repeated subtraction ● I know division is the opposite of multiplication ● I can recognise repeated addition contexts, representing them with multiplication equations ● relate grouping problems where we know how many in the group, but not how many groups (quotitive division) to multiplication with missing factor and division equations - i.e. There are 30 children in the class, 6 children sit at each table, how many tables are needed = 6 x ? = 30 or 30 ÷ 6 = ?			**Statistics**. ● I can read bar charts, tally charts, tables and pictograms. ● I can answer simple questions 'how many more?', 'how many fewer?' from bar charts, tally charts, tables and pictograms.	ASSESSMENT WEEK ● I can identify odd and even
Sp2	**Multiplication & Division** ● I can solve 1 step word problems involving multiplication and division using concrete resources or pictorial representations ● I can count in 3s from zero ● I can recall and use the multiplication and division facts for the 5 times tables ● I can recognise repeated addition contexts, representing them with multiplication equations ● relate grouping problems where we know how many in the group, but not how many groups (quotitive division) to multiplication with missing factor and division equations - i.e. There are 30 children in the class, 6 children sit at each table, how many tables are needed = 6 x ? = 30 or 30 ÷ 6 = ?			**Geometry** ● I know the properties of 2D shapes (sides, vertices, lines of symmetry) ● I know the properties of 3D shapes (edges, vertices, faces) ● I can distinguish between rotation as a turn and in terms of right angles for quarter, half and three-quarter turns.	**Length and Height** ● I can choose appropriate units of measure to estimate length, height. ● I can compare and order measures and record using < > and = ● I can read scales in divisions of 1s, 2s, 5s and 10s where all numbers on the scale are given. ● I can estimate whether my answer is reasonable.	

Year 2 Summer Maths Overview

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8 (3 days)
S1	**Fractions** ● I can recognise, find, name and write fractions 1/3 1/4 2/4 and 2/4 of a length, shape, set of objects or quantity ● I can recognise the equivalence of 2/4 to 1/2			**Time** ● I can compare and sequence intervals of time - longer, shorter, earlier, later. ● I can read and write the time on an analogue clock for quarter past and quarter to. ● I know there are 60 minutes in an hour and 24 hours in a day.		ASSESSMENT WEEK		
S2	**Statistics.** ● I can read bar charts, tally charts, tables and pictograms ● I can answer simple questions 'how many more?', 'how many fewer?' from bar charts, tally charts, tables and pictograms.	**Time** ● Il can read the time on an analogue clock to 5 past ● I know there are 60 minutes in an hour and 24 hours in a day ● I can compare and sequence intervals of time - longer, shorter, earlier, later.	**Addition and Subtraction** ● I can use representations (triangle, bar model) to show the inverse to solve missing number problems for addition and subtraction. ● I can add 2 two-digit numbers with regrouping and show my method with concrete or pictorial representations.	**Mass, Capacity and Temperature** ● I can choose appropriate units of measure to estimate length, height, mass, temperature and capacity ● I can read scales in divisions of 1s, 2s, 5s and 10s where all numbers on the scale are given ● I can read scales in divisions of 1s, 2s, 5s and 10s where not all numbers on the scale are given	Efficient methods for the four operations Daily arithmetic practice	**Money** ● I can solve problems involving adding and subtracting money (£p) ● I can estimate whether my answer is reasonable ● I can combine amounts to make a particular value	

Year 3 Autumn Maths Overview

Ready to Progress objectives are highlighted - please look at the DfE Mathematics guidance and the NCETM Exemplifications

	Week 1 (3 days)	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8
A1	**Place Value** ● I know that 10 tens is equal to 100 and can use this to work out how many 10s there are in other 3-digit multiples of 10. ● I can understand the value of each digit in a 3 digit number, using a place value grid and can partition them into different combinations of number i.e. 143 =120+23. ● I can reason about the location of any three-digit number in the linear number system, including identifying the previous and next multiple of 100 and 10. ● I can count in tens and hundreds and can find 10 or 100 more or less from any given number up to 1000 ● I can compare and order numbers up to 1000 using > < and = ● I can divide 100 into 2,4,5 and 10 equal parts and read scales numbers lines marked in multiples of 100 with 2, 4, 5, and 10 equal parts. ● I can read and write numbers up to 1000 in numerals and words ● I can begin to recognise some of the symbols for Roman numerals.			**Measures** ● I can divide 100 into 2,4,5 and 10 equal parts and read scales numbers lines marked in multiples of 100 with 2, 4, 5, and 10 equal parts. ● I can compare, add and subtract measures length, mass and volume	**Addition and Subtraction** ● I have secure fluency in addition and subtraction facts that bridge 10 through continued practice. ● I can estimate the answer to an addition or subtraction calculation ● I can use partitioning to add numbers using the most efficient method - 253 + 78 = 200 + 120 + 11 = 200 + 50 + 50 + 28 + 3 ● I can use the expanded method for addition. ● I can begin to use the column method for addition. ● I understand the inverse relationship between addition and subtraction and how both relate to the part-part-whole structure ● Understand and use the commutative property of addition ● I can solve missing number problems using number facts ● I can calculate my number facts to 100 with fluency		ASSESSMENT WEEK ● I can count in 2s, 3s, 4s 5s and 10s (both multiples and sequences)	**Addition and Subtraction** ● I can use representations (triangle or bar model) to show the inverse to an addition or subtraction calculation and check it is correct. ● I can solve word problems with increasingly complex addition and subtraction (using representations to help - bar model).
A2	**Addition and Subtraction** ● I can use partitioning to make numbers large enough to subtract - 72 - 9 = 60 +12 - 9 = 60 + 3 = 63 ● I can add and subtract up to 3 digit numbers using columnar method. ● I can compare, add and subtract measures. including money			**Multiplication and Division** ● I know that multiplication is commutative. ● I know what multiples are ● recall and use the multiplication and division facts for the 10, 5, 2, 4 and 8 times tables ● recall & use the multiplication and division facts for the 3,6 and 9 and 7x tables ● I can use related facts to multiply multiples of 10 e.g. 2 x 3 = 6 and 2 x 30 = 60 (scaling facts by 10) ● I can solve missing number problems involving multiplication and division using known facts. ● I understand the effect of multiplying and dividing by 1 and 0			

		● I can partition a number into 10s and ones to multiply (distributive law)		

Year 3 Spring Maths Overview

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6
Sp1	**Geometry** ● I can recognise right angles in 2D shapes or as a turn and identify right angles in 2 D shapes in different orientations ● I can say if an angle is greater or less than a right angle ● I can make 3D shapes using modelling materials and name and describe their properties ● I can identify horizontal and vertical lines and pairs of perpendicular and parallel lines ● I can draw polygons by joining marked points ● I can identify, describe and sort 2D and 3D shapes by naming them, talking about the number of sides and showing a vertical line of symmetry		**Fractions, Percentages and Decimals** ● I can write and interpret unit and non-unit fractions 'The whole is divided into 3 equal parts. 1 of these parts is shaded." (RtP 3F-1) ● I know that the denominator shows how many equal pieces a whole has been cut up into. ● I know that the numerator shows how many pieces have been shaded, taken etc. ● I can recognise ½, ¼, 1/3 and 1/5 of 1 object or several objects ● I can count in halves and quarters up to 10 recognising that fractions are numbers between whole numbers ● I can compare and order unit fractions, and fractions with the same denominator using number lines and fraction boards ● I can find unit fractions of quantities using known division facts e.g. 1/2, 1/4, 3/4 and 1/5 of a set of objects ● I can add and subtract fractions with the same denominator within 1 e.g. 2/5 + 1/5 = 3/5			ASSESSMENT WEEK ● I know my addition and subtraction facts for all numbers up to 20 ● I can solve number puzzles (magic squares, magic triangles etc.)
Sp2	**Length and Perimeter** ● I can compare, add and subtract measures ● I can solve problems involving measures including simple problems of scale (by 2 and 10 (3NF-3) ● I can measure the perimeter of a 2D shape ● I can read measuring instruments with increasing accuracy ● I can read scales in divisions of 1s, 2s, 5s and 10s when not all the numbers are given. ● I can estimate the answer to an addition or subtraction calculation		**Multiplication and Division** ● I can solve missing number problems involving multiplication and division using known facts. ● I can solve 1 step word problems involving multiplication and division e.g. 'share 4 cakes equally between 8 children (partitive division) and party bags come in packs of 4. How many do you need for 8 children? (quotitive division), using pictorial representation. ● I can divide 100 into 2,4,5 and 10 equal parts and use this to read scales			

Year 3 Summer Maths Overview

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8 (3 days)
S1	**Fractions, Percentages and Decimals** ● I can count up and down in tenths and understand a tenth as a whole/object being divided into 10 equal parts and write it on a number line.I can recognise and write the decimal equivalent of a tenth using a place value board e.g. 1/10 = 0.1 ● I can recognise and show using diagrams, simple equivalent fractions ● I can write and interpret unit and non-unit fractions ● I can reason about the location of any fraction within 1 in the linear number system ● I can describe the relationship between unit and non-unit fractions with the same denominator			**Measurement** ● I can record time in seconds, minutes and hours and can compare lengths of time (e.g. which is longer), using vocab am, pm, noon, midnight. ● I can tell and write the time to 5 minutes and draw the hands on a clock face to show these times. ● I can read and write the time to the nearest minute on an analogue clock and compare it to a digital clock. ● I know that there are 60 seconds in a minute, the number of days in each month, the number of days in a year and leap year.	**Multiplication and Division** ● I can find remainders in division, using known facts - 16/5 will have a remainder of 1. ● I know what multiples are ● I can count from 0 in multiples of 4, 8, 50, 100	ASSESSMENT WEEK		
S2	**Money** ● I can count up and down in tenths and understand a tenth as a whole/object being divided into 10 equal parts and write it on a number line. ● I can recognise and write the decimal equivalent of a tenth using a place value board e.g. 1/10 = 0.1	**Mass and Capacity** ● I can compare, add and subtract measures ● I can solve problems involving measures including simple problems of scale (by 2 and 10 - 3NF-3) ● I can read measuring instruments with increasing accuracy ● I can read scales in divisions of 1s, 2s, 5s and 10s when not all the numbers are given.		**Statistics** ● I can interpret and construct pictograms, tally charts, block diagrams and tables. ● I can begin to use a range of sorting diagrams - Venn, Carroll etc. ● I can interpret and present data in charts and graphs including using a scale of 2, 5 and 10 ● I can solve 2 step problems using the information presented in charts and graphs e.g. how many more/fewer? ● I can interpret data presented in a range of graphical representations with a greater range of scales		**Measurement** ● I can compare lengths of time using appropriate vocabulary ● tell and write the time from an analogue clock, including using Roman numerals from I to XII, and	**Addition and Subtraction** ● I can use the counting on method to subtract (2 and 3 digit numbers) ● Efficient methods (think about splitting children) ● I can add and subtract using column method up to 3-digit numbers	

			● I can read scales in 100s, 50s and 25s when not all the numbers are given.	12-hour and 24-hour clocks	

Year 4 Autumn Maths Overview

Ready to Progress objectives are highlighted - please look at the DfE Mathematics guidance and the NCETM Exemplifications

	Week 1 (3 days)	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8
A1	**Place Value** ● I know that 10 hundreds are equal to 1 thousand and that 1000 is 100 times the size of 10, and can apply this to work out how many 100s there are in other 4-digit multiples of 100 ● I can understand the value of each digit in a 4 digit number and partition into standard and non standard ways- i.e. 7830 = 7000, 800 + 30 or is 7000 + 400 + 430 ● I can represent numbers in different ways e.g. words, numerals, base 10, etc. ● I can read Roman numerals to 100 ● I can reason about the location of any four-digit number in the linear number system, including identifying the previous and next multiple of 10 and 100 ● I can compare and order numbers beyond 1000, using < > = ● I can say 1000 more or less than any given number ● I can round any whole number to the nearest 10, 100 or 1000 ● I can count backwards through zero to include negative numbers ● I can count in 25s to read on scales. ● I can divide 1 000 into 2,4,5 and 10 equal parts and read scales/number lines marked in multiples of 1 000 with 2, 4, 5 and 10 equal parts.				**Addition and Subtraction** ● I am confident with all my number bonds to 20 and 100. ● I can add 2 digit numbers and 3 digit numbers using column addition with regrouping ● I can use representations confidently to show the inverse operations to check calculations (triangle, part-part- whole, bar model), including problem solving. ● I can add 3 and 4 digit numbers using expanded or formal column addition ● Apply place-value knowledge to known additive and multiplicative number facts (scaling facts by 100), for example: 8+6=14 and 14- 6= 8 so 800+ 600 = 1,400 and 1,400- 600=800 ● I can solve number puzzles (magic squares, magic triangles etc.)		ASSESSMENT WEEK ● I can reflect shapes in line symmetry and complete symmetric figures or patterns with respect to a specified line of symmetry. ● I can read Roman numerals to 100	**Length and Perimeter** ● I know centi means '100th of', so centimetre is 100th of a metre and centilitre is 100th of a litre. ● I can calculate the perimeter of rectangles, including squares in cm and m (4G-2)
A2	**Addition and Subtraction** ● I can use column subtraction for 3 digit numbers. ● I can begin to solve 2 step word problems and use representations to help decide which operations to use (bar model). ● I can use < > = to complete equality and inequality statements for the four operations (33+17 • 96-45, 11x12 • 10x15)		**Area** ● I can find the area of rectangles by counting squares. ● I can estimate, compare and calculate measures in a variety of contexts	**Multiplication and Division** ● I can solve 2 step word problems, including correspondence problems - 3 cakes shared equally between 10 children, drawing pictures as required. ● I can use the = sign to write equality statements for addition, subtraction and multiplication. ● I can solve multiplication pyramids and understand the relationship between multiplication and division. (4MD-2) ● I can recall and use the multiplication and division facts for the 7 times tables ● I can use related facts to multiply multiples of 10 and 100 e.g. 2 x 3 = 6, 2 x 30 = 60, 2 x 300 = 600 ● I recognise patterns across all the multiplication tables.			

Spring Maths Lessons Y4

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6
Sp1	**Multiplication and Division** ● I understand and can apply the distributive law ● I can recognise factor pairs of a number and multiples of single digit numbers ● I can recall and use the multiplication and division facts for the 6 and 9 times tables recognising their relationship to the 3 times tables ● I can recall and use the multiplication and division facts for all tables up to 12 x 12 ● I can use formal vertical method to multiply TO and HTO by O ● I can divide 2 digit numbers by increasingly efficient written methods, including remainders, interpreted appropriately according to context (4NF-2) ● I can use an expanded vertical or grid method to multiply money with 2 decimal places by O (a one digit number) ● I can solve 2 step word problems involving all 4 operations and use drawings to choose which operation to use. ● I can solve more complex scaling problems (e.g. 8 times as high). ● I can divide 1000 into 2, 4, 5 and 10 equal parts and use this to read scales			**Geometry** ● I can identify, name and compare acute, right, obtuse and reflex angles ● I can name, describe and sort a variety of quadrilaterals and triangles based on their properties, incl parallel and perpendicular lines. ● I can use co-ordinates to plot a shape on a grid (1st quadrant) (4G-1) ● I can translate shapes on a grid (1st quadrant) and describe the movement using left/right, up/down.(4G-1) ● I can identify regular polygons, including equilateral triangles and squares, as those in which the side lengths are equal and the angles are equal. ● I can identify line symmetry in 2D shapes presented in different orientations. Reflect shapes in line symmetry and complete symmetric figure or pattern with respect to a specified line of symmetry.		ASSESSMENT WEEK ● I can use co-ordinates to plot a shape on a grid (1st quadrant) (4G-1) ● I can translate shapes on a grid (1st quadrant) and describe the movement using left/right, up/down.(4G-1
Sp2	**Fractions** ● I can reason about the location of mixed number fractions in the linear number system ● I can recognise and show equivalent fractions in a family of fractions ● I know that a hundredth is a whole that has been divided into 100 equal parts and as 10 parts of a tenth - linked to money. ● I can add and subtract improper and mixed fractions where the denominator is the same, including bridging whole numbers ● I can convert mixed numbers to improper fractions and vice versa. ● I can recognise and work out unit fractions of shapes, lengths and sets of objects e.g. 1/8 of a bar of chocolate made of 40 pieces			**Decimals** ● I can write the decimal equivalent of tenths and hundredths and recognise them in the context of money ● I know the decimal equivalent to 1/4, 1/2 and 3/4. ● .I can round a decimal with one decimal place to a whole number.		

Year 4 Summer Maths Overview

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8 (3 days)
S1	**Decimals** • I can compare and order decimals with the same number of decimal places up to 2 decimal places. • I can use both £ and p in context and recognise equivalence e.g. 306p = £3.06 • I can find the effect of dividing one and two digit numbers by 10 and 100 and identify the value of the digits in the answer as ones (units), tenths and hundredths.		**Money** • I can write the decimal equivalent of tenths and hundredths and recognise them in the context of money • I can add money with decimal places using an efficient method • I can subtract money including decimals using a number line e.g. finding the change from £5.00 • I can begin to solve 2 step word problems and use representations to help decide which operations to use (bar model).	**Statistics** • I am increasingly confident with using sorting diagrams (Venn, Carroll etc) for shapes and numbers. • I can present discrete and continuous data using bar charts and time charts etc.	ASSESSMENT WEEK **Time** • I can read, write and convert time between analogue and digital 12 and 24 hour clocks. • I can order periods of time - 48 hours, 1 day, 35 days, 1 month, 1 fortnight.	**Statistics** • I can solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs		
S2	**Multiplication and Division** • I can explore the effect of partitioning a number to multiply (distributive law) e.g. exploring 7x8 by splitting 7 into 2 and 5 then calculating 2x8 and 5x8 • I can recognise factor pairs of a number and multiples of single digit numbers • I can recall and use the multiplication and division facts for the 6 and 9 times tables recognising their relationship to the 3 times tables • I can recall and use the multiplication and division facts for all tables up to 12 x 12		**Time** • I can read, write and convert time between analogue and digital 12 and 24 hour clocks. • I can order periods of time - 48 hours, 1 day, 35 days, 1 month, 1 fortnight. • I can solve problems involving calculating lengths of time - crossing hour boundaries	**Measures - mass and length** • I can measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml) • I know centi means '100th of', so centimetre is 100th of a metre and centilitre is 100th of a litre. • I can calculate the perimeter of rectangles, including squares in cm and m (4G-2) • I can convert between different units of measure using my understanding of times and divide by 10, 100 and 1000		Money • I can add money with decimal places using an efficient method. • I can subtract money including decimals using a number line e.g. finding the change from £5.00		**Four Operations** • I can use < > = to complete equality and inequality statements for the four operations (33+17 • 96-45, 11x12 • 10x15)

Year 5 Autumn Maths Overview

Ready to Progress objectives are highlighted - please look at the DfE Mathematics guidance and the NCETM Exemplifications

	Week 1 (3 days)	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8
A1	**Place Value** ● I can read scales/number lines marked in units of 1, 2, 4, 5 and 10 equal parts ● I can read write order and compare numbers to 1,000,000 (1 million) and determine the value of each digit ● I can round any number up to 1,000,000 to the nearest 10, 100, 1000, 10,000 and 100,000 ● I can count forwards and backwards in steps of powers of 10 for any given number up to 1,000,000 ● I can solve problems using my understanding of place value ● I can read Roman numerals to 1000 (link to the date/year)			**Addition and Subtraction** ● I can use rounding to estimate and check answers to calculations ● I can apply place value knowledge to known additive and multiplicative number facts (scaling facts by 1 tenth or 1 hundredth) ● I can subtract a mix of whole numbers and decimals with different numbers of decimal places using column subtraction ● I can solve multi step problems involving a combination of any of the 4 operations		**Multiplication and Division** ● I have secure fluency of all multiplication and division facts for tables up to 12x12 and can use them confidently in larger calculations ● I can use related facts to solve multiplication problems	ASSESSMENT WEEK ● I have secure fluency of all multiplication and division facts for tables up to 12x12 and can use them confidently in larger calculations	**Multiplication and Division** I can find factors and multiples of positive whole numbers, including common factors and common multiples, and express a given number as a product of 2 or 3 factors. I know and use the vocabulary of prime numbers, prime factor and composite (non-prime) numbers
A2	**Multiplication and Division** ● I can multiply and divide numbers by 10, 100 and 1000 giving answers up to 3 decimal places ● I can recognise squared and cubed numbers and use the correct notation. ● I can work out if any number to 100 is a prime number and know all primes up to 19.		**Measures** ● I can convert units of measure including using common decimals and fractions - i.e ⅛ km = 0.2km, ¼ km = 0.25km, ½ km = 0.5km	**Fractions** ● Find non-unit fractions of quantities. ● Find equivalent fractions and understand that they have the same value and the same position in the linear number system ● I can compare and order fractions, where the denominators are multiples of the same number (simplifying). ● I can add and subtract fractions with the same denominators including recognising and converting improper fractions to mixed numbers ● I can add and subtract fractions with different denominators ● I can multiply proper fractions and mixed numbers by a whole number using diagrams and concrete apparatus ● I can recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents.			

Spring Maths Lessons Y5

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6
Sp1	**Multiplication and Division** ● I can multiply TO x TO ● I can use a formal vertical method to multiply whole number with up to 4 digits by a one digit number. ● I can solve problems involving multiplication ● I can divide 4 digit numbers by one digit using a formal written method and interpret remainders appropriately in context. ● I can begin to represent a remainder as a fraction or decimal ● I can solve problems involving multiplication and division including scaling by simple fractions, drawing representations as required. ● I can divide 1 into 2,4,5 and 10 equal parts and read scales marked in units of 1 with 2,4,5 and 10 equal parts ● I can solve increasingly complex number puzzles			**Geometry** ● I can compare, estimate and measure angles in degrees and draw angles of a given size. ● I can identify regular and irregular shapes using my knowledge of length of sides and angles ● I can find missing lengths and angles in rectangles using my knowledge of related facts ● I can calculate missing angles on a straight line (180 degrees), or at a point (360 degrees), or within a right angle (90 degrees ● I can find missing lengths and angles in rectangles using my knowledge of related facts ● I can identify 3D shapes from 2D representations		ASSESSMENT WEEK ● I can convert units of measure including using common decimals and fractions - i.e ⅛ km = 0.2km, ¼ km = 0.25km, ½ km = 0.5km
Sp2	**Time** ● I can solve problems involving time including time including reading simple timetables ● I can solve problems which involve converting hours to minutes, minutes to seconds, years to months or weeks to days	**Fractions and Decimals** ● I can find equivalent fractions and understand that they have the same value and the same position in the linear number system. ● I know that 100 hundredths are the equal to 1 one and that 1 is 100 times the size of 0.01 ● I can convert units of measure including using common decimals and fractions - i.e ⅛ km = 0.2km, ¼ km = 0.25km, ½ km = 0.5km ● I can reason about the location of any number with up to 2 decimal places within the linear number system, including identifying the previous and next multiple of 1 and 0.1		**Perimeter and Area** ● I can calculate and compare area of rectangles (incl squares) using standard units ● I can find missing lengths when calculating the perimeter of composite shapes. ● I can estimate the area of irregular shapes.	**Statistics** ● I can solve comparison, sum and difference problems using information presented in line graphs. ● I can complete, read and interpret information in tables, including timetables. ● I can begin to interpret pie charts, using my knowledge of fractions and percentages.	

Summer Maths Lessons Y5

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8 (3 days)
S1	**Decimals and Percentages** ● I know that ten tenths are equal to 1 and that 1 is ten times the size of 0.1I can round decimals with 2 decimal places to the nearest whole number and to one decimal place. ● I can read, write, order and compare numbers that have a mixture of 1, 2 or 3 decimal places. ● I can recognise and understand % as part of 100 and write a % as a fraction and a decimal. ● Recall decimal fraction equivalents for ½, ¼, ⅕, and 1/10 and for multiples of these proper fractions.			**Position and Direction** ● I can identify, describe and draw the position of a shape on a grid after a reflection on a line parallel to the axis. ● I can identify, describe and draw the position of a shape on a grid after a translation.	ASSESSMENT WEEK ● I can multiply and divide numbers by 10, 100 and 1000 giving answers up to 3 decimal places	**Multiplication and Division** I have secure fluency of all multiplication and division facts for tables up to 12x12 and can use them confidently in larger calculations		
S2	***Revision of square, cube, prime numbers (from fluency sessions)*** ● I can solve problems using my knowledge of factors and multiples, squares and cubes.	**Decimals** ● I can recognise, compose and partition numbers up to 2 decimal places ● I can reason about the location of any number with up to 2 decimal places within the linear number system, including identifying the previous and next multiple of 1 and 0.1 ● I can recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents ● I can begin to interpret pie charts, using my knowledge of fractions and percentages.		**Negative Numbers** ● I can interpret negative numbers in context ● I can find the difference between temperatures using negative and positive numbers.	**Measurement** ● I can estimate volume and capacity and explore these concepts using practical materials ● I can understand and use approximate equivalences between metric units and common imperial units (inches, pounds, pints) ● I can convert units of measurement to 2 decimal places - i.e. 1.28m = 128 cm and common fractions. ● I know that milli means '1 000th of' so there are 1 000mm in 1 m and 1 000ml in 1 litre. ● I can solve problems which involve converting hours to minutes, minutes to seconds, years to months or weeks to days. ● I can solve problems involving time including reading simple timetables. ● I can convert units of measure including using common decimals and fractions - i.e ⅕ km = 0.2km, ¼ km = 0.25km, ½ km = 0.5km		**Time** ● I can solve problems involving time including time including reading simple timetables ● I can solve problems which involve converting hours to minutes, minutes to seconds, years to months or weeks to days

Year 6 Autumn Maths Overview

Ready to Progress objectives are highlighted - please look at the DfE Mathematics guidance and the NCETM Exemplifications

	Week 1 (3 days)	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8
A1	**Place Value** ● I can read, write, order and compare numbers up to 10,000,000 and determine the value of each digit, including partitioning into standard and non-standard combinations ● I can round any whole number to a required degree of accuracy ● I can solve number and practical problems related to all of the above ● I can solve number and practical problems related to all of the above ● I know half of all the odd numbers to 10. ● I understand the relationship between powers of 10 from 1 hundredth to 10 million, and use this to make a given number 10, 100, 1000, 1 tenth, 1 hundredth or 1 thousandth times the size ● I can reason about the location of any number up to 10 million, including decimal fractions, in the linear number system, and round numbers, as appropriate, including in contexts ● I can divide powers of 10, from 1 hundredth to 10 million, into 2,4,5 and 10 equal parts and read scales/number lines with labelled intervals divided into 2, 4, 5 and 10 equal parts			**4 Operations** ● I can subtract large numbers using formal column subtraction ● I can solve addition and subtraction multi-step problems in context, with increasingly large numbers, deciding which operations to use and why ● I can use related facts to multiply multiples of 10 and 100 e.g. 2 x 3 = 6 and 200 x 30 = 6000 ● I can multiply and divide numbers by 10, 100 and 1000 giving answers up to 3 decimal places ● I can multiply multi-digit numbers up to 4 digits by a 2-digit whole number using the formal written method of long multiplication ● I consistently check the reasonableness of my answer in all calculations ● I can solve multi-step word problems and investigations involving all 4 operations from a large range of contexts ● I can use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy ● I can perform mental calculations, including with mixed operations and large numbers ● I understand that two numbers can be related additively or multiplicatively and quantify the relationship between the two			ASSESSMENT WEEK	**Converting Units** ● I can use, read, write and convert between standard units of measure using decimal notation up to 3 decimal places ● I can solve problems involving the calculation and conversion of units of measure using decimal notation up to three decimal places

	Fraction ● I can use common multiples to express fractions in the same denomination ● Recognise when fractions can be simplified, and use common factors to simplify fractions ● Express fractions in a common denomination and use this to compare fractions that are similar in value. ● I can compare and order any set of fractions including those greater than 1 (unit, proper or improper, or mixed numbers including those with different denominators) ● I can add and subtract fractions and mixed numbers with different denominators using the concept of equivalent fractions ● I can multiply simple pairs of proper fractions and write the answer in its simplest form e.g. 1/4 x 1/2 = 1/8 ● I can divide proper fractions by a whole number e.g. 1/3 divided by 2 = 1/6 ● I can associate fractions with division and prove decimal equivalence with 1/2, 1/4, 1/5, 1/3. ● I can calculate more complex decimal equivalents (such as 3/8 = 0.375) using my understanding of the equivalence between f,d,p ● I know the value of digits up to 3 decimal places and can multiply and divide numbers by 10, 100 and 1000 with answers up to 3 decimal places	4 Operations ● I can divide numbers up to 4 digits by a 2-digit whole number using long division ● I can divide numbers up to 4 digits by a 2-digit whole number using short division ● I can express a remainder as a whole number remainder, fraction, decimal or rounded according to context ● I can identify common factors, common multiples and prime numbers, with increasingly large numbers ● I can use my knowledge of the four operations to carry out calculations involving the four operations ● I can multiply one-digit numbers with up to two decimal places by whole numbers ● I can use written division methods in cases where the number has up to two decimal places		

Spring Maths Lessons Y6

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6
Sp1	**Ratio** ● I can solve problems using the relative size of two quantities where missing values can be found by using integer multiplication and division facts ● I can solve problems involving similar shapes where the scale factor is known or can be found. ● I can solve problems involving unequal sharing and grouping using knowledge of fractions and multiples (ratio)		**Algebra** ● I can use simple formulae ● I can generate and describe linear number sequences. ● I can express missing number problems algebraically ● I can find pairs of numbers that satisfy an equation with two unknowns ● I can enumerate possibilities of combinations of two variables		**Geometry** ● I can accurately draw 2D shapes using given angles and dimensions or area ● I can recognise, describe and build simple 3D shapes including making nets	ASSESSMENT WEEK I can recognise vertically opposite angles and use this to calculate missing angles
Sp2	Fractions, Decimals and Percentages ● I can associate fractions with division and prove decimal equivalence with 1/2, 1/4, 1/5, 1/3. ● I can calculate more complex decimal equivalents (such as 3/8 = 0.375) using my understanding of the equivalence between f,d,p ● I can recall and use equivalence between fractions, decimals and percentages to solve problems e.g. 10% of £5.00 or 50% of the team. ● I can solve problems involving the calculation of percentages [e.g. of measures and such as 15% of 360] and the use of percentages for comparison		**Perimeter, Area and Volume** ● I can calculate, estimate and compare the volume of cubes and cuboids using standard units e.g. cm^3 ● I can recognise when it is possible to use formulae to calculate area or volume ● I can investigate relationships between area and perimeter e.g. shapes with the same area can have different perimeters and vice versa. ● I can substitute values into a simple formula to solve problems (e.g. perimeter of rectangle or area of triangle). ● I can calculate the area of parallelograms and triangles		**Statistics** ● I can interpret and construct pie charts and line graphs ● I can solve problems using the data from line graphs (including conversion graphs) and pie charts, including those I have constructed myself ● I can calculate the mean as an average and understand when it is appropriate to find the mean of a set of data	

Summer Maths Lessons Y6

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8 (3 days)
S1	**Geometry** I can compare and classify geometric shapes based on their size and properties and can find unknown angles in any triangle, quadrilateral or regular polygon I can illustrate and name parts of a circle including radius, diameter and circumference and know that diameter is twice the radius I can recognise vertically opposite angles and use this to calculate missing angles	**Geometry: Position and Direction** ● I can draw and translate simple shapes on a 4-quadrant grid. ● I can reflect simple shapes on all 4 axes. ● I can label the axes of a grid in all 4 quadrants and describe a position on the grid.	**Statistics** ● I can interpret and construct pie charts and line graphs ● I can solve problems using the data from line graphs (including conversion graphs) and pie charts, including those I have constructed myself	Revision	**SATS week**			
S2	Money Sense ● I can recall and use equivalence between fractions, decimals and percentages to solve problems e.g. 10% of £5.00 or 50% of the team. ● I can use related facts to multiply multiples of 10 and 100 e.g. 2 x 3 = 6 and 200 x 30 = 6000 ● I can use negative numbers in context and calculate intervals across zero ● I understand the relationship between powers of 10 from 1 hundredth to 10 million, and use this to make a given number 10, 100, 1000, 1 tenth, 1 hundredth or 1 thousandth times the size ● I consistently check the reasonableness of my answer in all calculations			**Consolidation of 4 Operations for Secondary Readiness** ● I can subtract large numbers using formal column subtraction ● I can solve addition and subtraction multi-step problems in context, with increasingly large numbers, deciding which operations to use and why ● I can use related facts to multiply multiples of 10 and 100 e.g. 2 x 3 = 6 and 200 x 30 = 6000 ● I can multiply and divide numbers by 10, 100 and 1000 giving answers up to 3 decimal places ● I can multiply multi-digit numbers up to 4 digits by a 2-digit whole number using the formal written method of long multiplication ● I can divide numbers up to 4 digits by a 2-digit whole number using long division ● I can divide numbers up to 4 digits by a 2-digit whole number using short division			Geometry Draw, compose and decompose shapes according to given properties, including dimensions, angles and area and solve related problems.

Year 6 Objectives

Number – number and place value

Statutory requirements

Pupils should be taught to:

- read, write, order and compare numbers up to 10 000 000 and determine the value of each digit
- round any whole number to a required degree of accuracy
- use negative numbers in context, and calculate intervals across zero
- solve number and practical problems that involve all of the above.

Number – addition, subtraction, multiplication and division

Statutory requirements

Pupils should be taught to:

- multiply multi-digit numbers up to 4 digits by a two-digit whole number using the formal written method of long multiplication
- divide numbers up to 4 digits by a two-digit whole number using the formal written method of long division, and interpret remainders as whole number remainders, fractions, or by rounding, as appropriate for the context
- divide numbers up to 4 digits by a two-digit number using the formal written method of short division where appropriate, interpreting remainders according to the context
- perform mental calculations, including with mixed operations and large numbers
- identify common factors, common multiples and prime numbers
- use their knowledge of the order of operations to carry out calculations involving the four operations
- solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why

Statutory requirements

- solve problems involving addition, subtraction, multiplication and division
- use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy.

Algebra

Statutory requirements

Pupils should be taught to:

- use simple formulae
- generate and describe linear number sequences
- express missing number problems algebraically
- find pairs of numbers that satisfy an equation with two unknowns
- enumerate possibilities of combinations of two variables.

Number – fractions (including decimals and percentages)

Statutory requirements

Pupils should be taught to:

- use common factors to simplify fractions; use common multiples to express fractions in the same denomination
- compare and order fractions, including fractions > 1
- add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions
- multiply simple pairs of proper fractions, writing the answer in its simplest form [for example, $\frac{1}{4} \times \frac{1}{2} = \frac{1}{8}$]
- divide proper fractions by whole numbers [for example, $\frac{1}{3} \div 2 = \frac{1}{6}$]
- associate a fraction with division and calculate decimal fraction equivalents [for example, 0.375] for a simple fraction [for example, $\frac{3}{8}$]
- identify the value of each digit in numbers given to three decimal places and multiply and divide numbers by 10, 100 and 1000 giving answers up to three decimal places

Statutory requirements

- multiply one-digit numbers with up to two decimal places by whole numbers
- use written division methods in cases where the answer has up to two decimal places
- solve problems which require answers to be rounded to specified degrees of accuracy
- recall and use equivalences between simple fractions, decimals and percentages, including in different contexts.

Ratio and proportion

Statutory requirements

Pupils should be taught to:

- solve problems involving the relative sizes of two quantities where missing values can be found by using integer multiplication and division facts
- solve problems involving the calculation of percentages [for example, of measures, and such as 15% of 360] and the use of percentages for comparison
- solve problems involving similar shapes where the scale factor is known or can be found
- solve problems involving unequal sharing and grouping using knowledge of fractions and multiples.

Measurement

Statutory requirements

Pupils should be taught to:

- solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate
- use, read, write and convert between standard units, converting measurements of length, mass, volume and time from a smaller unit of measure to a larger unit, and vice versa, using decimal notation to up to three decimal places
- convert between miles and kilometres
- recognise that shapes with the same areas can have different perimeters and vice versa
- recognise when it is possible to use formulae for area and volume of shapes
- calculate the area of parallelograms and triangles
- calculate, estimate and compare volume of cubes and cuboids using standard units, including cubic centimetres (cm^3) and cubic metres (m^3), and extending to other units [for example, mm^3 and km^3].

Geometry – properties of shapes

Statutory requirements

Pupils should be taught to:

- draw 2-D shapes using given dimensions and angles
- recognise, describe and build simple 3-D shapes, including making nets
- compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals, and regular polygons
- illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius
- recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles.

Statutory requirements

Pupils should be taught to:

- describe positions on the full coordinate grid (all four quadrants)
- draw and translate simple shapes on the coordinate plane, and reflect them in the axes.

Statistics

Statutory requirements

Pupils should be taught to:

- interpret and construct pie charts and line graphs and use these to solve problems
- calculate and interpret the mean as an average.