Maths Curriculum Progression 2023 - 2024

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 2023 2024

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.

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Whole school days/events linked to Maths		**Barvember**	**Multiplication Bee**			**Money Sense Day** **Multiplication Bee**
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	White Rose SOL 'Just Like Me' Match and Sort, Compare amounts, size, mass and capacity Exploring pattern Mastering Number	White Rose SOL 'It's Me 1,2,3!' Representing, comparing and composition of 1,2,3. Circles and triangles, positional language. 'Light and Dark' Numbers to 5, i more/less Shapes with 4 sides Time Mastering Number	White Rose SOL 'Alive in 5' Introducing zero, comparing numbers to 5, composition of 4 and 5, comparing mass and capacity. 'Growing 6,7,8' Numbers 6,7,8 Making pairs, combining 2 groups Length and height Mastering Number	White Rose SOL 'Building 9 and 10' Numbers 9 and 10, comparing numbers to 10, bonds to 10 3D Shape Pattern Mastering NumbeR	White Rose SOL 'To 20 and Beyond' Building numbers beyond 10, counting patterns beyond 10 Spatial reasoning 'First, Then, Now' Adding more/taking away Spatial reasoning Mastering Number	White Rose SOL 'Find My Pattern' Doubling, sharing, grouping Even and odd Spatial reasoning 'On the Move' Deepening understanding of patterns and relationships Mastering NumbeR

Year 1	Addition and Subtraction (composition of numbers 0-5)	Addition and subtraction (composition of numbers 6-10)	Place Value Addition & Subtraction	Multiplication Division	Place Value	Fractions Time Addition and Subtraction Measure Geometry
Year 2	Composition of Numbers (0-10) Place Value Addition and subtraction	Place Value Addition and subtraction	Place Value Addition and subtraction Multiplication and Division	Multiplication and Division Fractions	Efficient Methods	Arithmetic and Reasoning Measure
Year 3	Place Value Addition and Subtraction	Addition and subtraction Multiplication & division	Multiplication and Division	Fractions, Percentages and Decimals	Measure Multiplication and Division	Addition and Subtraction Geometry Statistics
Year 4	Place value Addition/subtraction	Addition and Subtraction	Multiplication and Division	Multiplication and Division Fractions and Decimals	Fractions and Decimals Measure	Measure Geometry Statistics
Year 5	Place value Number Multiplication and Division	Multiplication & Division Addition and Subtraction	Multiplication and Division	Fractions, Decimals and Percentages	Fractions, Decimals and Percentages Measure	Geometry
Year 6	Place Value 4 operations	Co-ordinates Fractions	Fractions, decimals & percentages Algebra	Ratio & proportion Perimeter, area volume Converting units of measure	Statistics 2d/3d shape SATS revision and Prep BODMAS	Money Sense Multiplication Bee Problem solving

In Reception we follow the White Rose Scheme of Learning as well as the Mastering Number programme from NCETM.

Reception

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Autumn	Getting to know you (Take this time to play and get to know the children!)			Just like me!			It's me 1, 2, 3!			Light and Dark		
Spring	Alive in 5!			Growing 6, 7, 8			Building 9 and 10			Consolidation		
Summer	To 20 and Beyond			First, then, now			Find My Pattern			On the Move		

White Rose Early Years resources

Have a look at the Scheme of Learning to see the sorts of activities that your child will be doing.

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Maths	White Rose Scheme of Learning **'Just Like Me'** • Match and sort • compare amounts, • size, mass and capacity, • exploring pattern **Mastering Number** programme • subitising • develop counting skills: cardinality; 1:1 correspondence	White Rose Scheme of Learning **'It's Me 1,2,3!'** Representing, comparing and composition of 1,2,3. Circles and triangles, positional language. **'Light and Dark'** Numbers to 5, 1 more/less Shapes with 4 sides Time **Mastering Number** • spot smaller numbers 'hiding' within larger • develop concept of whole and parts	White Rose Scheme of Learning **'Alive in 5'** Introducing zero, comparing numbers to 5, composition of 4 and 5, comparing mass and capacity. **'Growing 6,7,8'** Numbers 6,7,8 Making pairs, combining 2 groups Length and height **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	White Rose Scheme of Learning **'Building 9 and 10'** Numbers 9 and 10, comparing numbers to 10, bonds to 10 3D Shape Pattern **Mastering Number** • 2 equal groups can be called double • recognising odd and even numbers	White Rose Scheme of Learning **'To 20 and Beyond'** Building numbers beyond 10, counting patterns beyond 10 Spatial reasoning **'First, Then, Now'** Adding more/taking away Spatial reasoning **Mastering Number** • continue work on doubles • different representations of numbers	White Rose Scheme of Learning **'Find My Pattern'** Doubling, sharing, grouping Even and odd Spatial reasoning **'On the Move'** Deepening understanding of patterns and relationships **Mastering Number** • review of learning • subitising • patterns in number • recall of number facts within 3,4,5 an 10.

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 to 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 - 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 can add in ones using practical resources. ● I can subtract in ones using practical resources.	● I can use everyday vocabulary to describe weight, 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.

Year 1

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

Year 1 Autumn Maths Overview

Y1 Maths Lessons

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8
A1	**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 ● **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 and write 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 problems NUMBER BLOCKS			
A2	**Addition and Subtraction (composition of numbers 6-10)** ● I can read and write symbols (+-=) and know what they represent ● I know my addition and subtraction facts to 10 ● I can compose numbers to 10 from two parts, and partition numbers to 10 into parts ● 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						ASSESSMENT WEEK	

Year 1 Spring and Summer Maths Overview

Y1 Maths Lessons

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6
Spring 1	**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		**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			
Spring 2	**Multiplication** I know that multiplication is a number of equal groups I can count in 2s, 5s and 10s from zero 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 I can solve 1 step word problems involving multiplication and division using concrete resources or pictorial representations		**Multiplication and division** I know the doubles and halves of numbers up to 10 I can identify odd and even numbers up to 20	
Summer 1	ASSESSMENT WEEK	**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 that a quarter is something that has been cut into two equal pieces		**Place Value** I can reason about the location of numbers to 20 within the linear number system, including comparing using < > = 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		
Summer 2	**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	**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		ASSESSMENT WEEK	**Measures & Geometry** All measures objectives in practical contexts (revision from free play and maths meetings all year) I can compose 2D and 3D shapes from smaller shapes to match an example, including manipulating shapes to place them in particular orientations. I know that rectangles, triangles, cuboids and pyramids are not always similar to one another	

Autumn Maths Meetings Y1

Many objectives require repetition to instill the learning, please cover these regularly in your daily maths meetings.

Place Value	Addition and Subtraction	Multiplication and Division	Measures			Shape	Statistics
			Time	Money	LH/WM/CV		
● I can read, write and represent numbers up to 10 ● I can identify 1 more and 1 less than any given number up to 20 ● I can recognise even and odd numbers up to 10 ● I can continue simple number sequences and shape patterns	● I know my addition and subtraction facts for all numbers to 5	● I can count in 2s, 5s and 10s from zero ● I know the doubles and halves of numbers up to 10 ● I can count forwards and backwards through odd numbers	● 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 recognise and know the value of 1p, 2p, 5p, 10p,	● I can compare and describe length and height using vocab longer/shorter etc	● I can recognise and name common 2D shapes in different orientations	● I can begin making and interpret simple pictograms and tables

Spring and Summer Maths Meetings Y1

	Place Value	Addition and Subtraction	Multiplication and Division	Measures			Shape	Statistics
				Time	Money	LH/WM/CV		
Spring	● I can read, write and represent numbers from 20 up to 100 ● I can identify 1 more and 1 less than any given number up to 50 ● I can recognise even and odd numbers up to 20 ● I can continue simple number sequences and shape patterns ● I can count within 100 forwards and backwards, starting with any number	● I know my addition and subtraction facts for all numbers to 10	● I can count in 2s, 5s and 10s from zero ● I know the doubles and halves of numbers up to 10 ● I can count forwards and backwards through odd numbers	● I can read and write the time on an analogue clock for o'clock	● I recognise and know the value of 20p, 50p, £1, £2	● I can compare and describe weight and mass using vocab heavier/lighter than	● I can recognise and name common 3D shapes	● I can make and interpret simple pictograms and tables
Summer	● I can read, write and represent teen numbers ● I can identify 1 more and 1 less than any given number up to 100 ● I can recognise even and odd numbers up to 20 ● I can continue simple number sequences and shape patterns ● I can count within 100 forwards and backwards, starting with any number	● I know my addition and subtraction facts for all numbers to 10	● I can count in 2s, 5s and 10s from zero ● I know the doubles and halves of numbers up to 10 ● I can count forwards and backwards through odd numbers	● I can read and write the time on an analogue clock for o'clock and half past	● I recognise and know the value of all coins up to £2	● I can compare and describe capacity and volume using vocab full/empty/half full etc	● I can describe position, direction and movement including whole, half, quarter and three quarter	● I can answer a simple question about a pictogram or table

Year 2 Autumn Maths Overview

Ready-to-progress objectives (priority for progression to future years)

Autumn Maths Lessons

<table>
<tr><th></th><th>Week 1</th><th>Week 2</th><th>Week 3</th><th>Week 4</th><th>Week 5</th><th>Week 6</th><th>Week 7</th><th>Week 8</th></tr>
<tr><td>A1</td><td colspan="5">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</td><td colspan="3">Addition and Subtraction
I know my addition and subtraction facts to 10
know that subtraction and addition are opposites and that addition makes the answer greater and subtraction makes the answer smaller.
I am confident with all my addition and subtraction facts to numbers up to 15.
I can add O+O bridging 10
I can add 3 small numbers confidently.
I can estimate whether my answer is reasonable.</td></tr>
<tr><td>A2</td><td colspan="3">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.
I know that addition can be done in any order (commutative) but subtraction cannot.
I can add and subtract TO and O and TO and TO where no regrouping is required (23+5 and 43+20)
I can use related facts to add and subtract multiples of 10 and 100 e.g. 6 - 4 = 2 60 - 40 = 20; 6 + 4 = 10 60 = 40 = 100</td><td colspan="3">Shape
I know the properties of 2D shapes (sides, vertices and lines of symmetry).
I know the properties of 3D shapes (edges, number and name of faces).</td><td></td></tr>
</table>

Year 2 Spring Maths Overview

Spring Maths Lessons Y2

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8
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 use x, / and = signs ● I know that division is when you share something in equal groups. ● I can divide using concrete objects and pictorial representations, and arrays and repeated subtraction ● I know division is the opposite of multiplication ● I can recall and use the multiplication and division facts for 2 and 10 times tables ● I can recall and use the multiplication and division facts for the 5 times tables				ASSESSMENT WEEK		
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		**Length and Height** ● I can choose appropriate units of measure to estimate length, height, mass, temperature and capacity ● 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.	**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				

Year 2 Summer Maths Overview

Maths Lessons

<table>
<tr><th></th><th>Week 1</th><th>Week 2</th><th>Week 3</th><th>Week 4</th><th>Week 5</th><th>Week 6</th></tr>
<tr><td>S1</td><td colspan="3">Efficient methods for the four operations (Revision in streamed groups)
Revise Time, Statistics & shape objectives (covered in Maths Meetings)
I can confidently recite the days of the week and months of the year.
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.
I can read bar charts, tally charts, tables and pictograms.
can answer simple questions 'how many more?', 'how many fewer?' from bar charts, tally charts, tables and pictograms.I can distinguish between rotation as a turn and in terms of right angles for quarter, half and three-quarter turns.</td><td colspan="3">Revision and SATs</td></tr>
<tr><td>S2</td><td colspan="6">Daily arithmetic and reasoning revision (mixed up problems) & intervention for children who have not met standards.
Consolidation of Fractions, Time and Statistics objectives:
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 ½
I can confidently recite the days of the week and months of the year.
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.
I can read bar charts, tally charts, tables and pictograms.
can answer simple questions 'how many more?', 'how many fewer?' from bar charts, tally charts, tables and pictograms.I can distinguish between rotation as a turn and in terms of right angles for quarter, half and three-quarter turns.</td></tr>
</table>

Autumn Maths Meetings Y2

	Place Value	Addition and Subtraction	Multiplication and Division	Measures			Shape	Statistics
				Time	Money	LH/WM/CV		
Autumn	● I understand the value of each digit in a 2-digit number ● I can partition 2-digit numbers into different combinations of 10s and 1s ● I can count forwards and backwards to and from 100 ● I can count forwards and backwards in tens from any number including crossing boundaries into hundreds	● I know my addition and subtraction facts for numbers to 15 ● I can partition 2-digt numbers into different combinations of 10s and 1s (20+14=34, 10+24=34) ● I can find the relationships in number fact families	● I can recall and use multiplication facts for the 2, 5- and 10-times tables ● I can identify doubles and halves up to 20 ● I can identify odd and even	● I can read time on an analogue clock for quarter past and quarter to ● I can compare and sequence intervals of time – longer, shorter, earlier and later	● I know the different denominations for coins and notes ● I can use and recognise symbols for £ and p	● I can choose appropriate unites of measure to estimate length, height, mass, temperature and capacity	● I know the properties of 2D shapes (sides, vertices, lines of symmetry)	● I can answer simple ‘how many more?’ ‘how many fewer’ questions from bar charts, tables, tally charts and pictograms ● I can read bar charts, tables, tally charts and pictograms

Spring and Summer Maths Meetings Y2

	Place Value	Addition and Subtraction	Multiplication and Division	Measures			Shape	Statistics
				Time	Money	LH/WM/CV		
Spring	• I understand the value of each digit in a 2-digit number • I can partition 2-digit numbers into different combinations of 10s and 1s • I can count forwards and backwards to and from 100 • I can count forwards and backwards in tens from any number including crossing boundaries into hundreds	• I can partition 2-digit numbers into different combinations of 10s and 1s (20+14=34, 10+24=34) • I can find the relationships in number fact families	• I can recall and use multiplication and division facts for the 2, 5 and 10 times tables • I can identify doubles and halves up to 20 • I can identify odd and even	• I 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 know the different denominations for coins and notes • I can use and recognise symbols for £ and p	• I can read scales in divisions of 1s, 2s, 5s and 10s where all numbers on the scale are given	• I know the properties of 3D shapes (edges, vertices, faces)	• I can answer simple 'how many more?' 'how many fewer' questions from bar charts, tables, tally charts and pictograms • I can read bar charts, tables, tally charts and pictograms
Summer		• I can estimate whether my answer is reasonable • I can use related facts to add and subtract multiples of 10 and 100	• I can count in 3s from zero • I can recall and use multiplication and division facts for the 3 times table	• I can compare and sequence intervals of time – longer, shorter, earlier and later	• I can combine amounts to make a particular value	• I can read scales in divisions of 1s, 2s, 5s and 10s where not all numbers on the scale are given	• I can distinguish between rotation as a turn in terms of angles for quarter, half and 2-quarter turns	

Year 3 Autumn Maths Overview

Ready-to-progress objectives

Autumn Maths Lessons Y3

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7
A1	**Place Value** ● I know my number facts to 100 ● 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 count in tens and hundreds and can find 10 or 100 more or less from any given number up to 1000 ● I know that ten 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 compare and order numbers up to 1000 using > < and = ● 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 read and write numbers up to 1000 in numerals and words ● I can begin to recognise some of the symbols for Roman numerals.			**Addition and Subtraction** ● I know my addition and subtraction facts for all numbers to 20 ● 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 solve missing number problems using number facts and an understanding that addition is commutative and subtraction is not ● I can begin to use the expanded method for addition. ● I can use the counting on method to subtract (2 and 3 digit numbers) ● I can use partitioning to make numbers large enough to subtract - 72 - 9 = 60 +12 - 9 = 60 + 3 = 63 ● I know my number facts to 100			Assessment Week
A2	**Addition and Subtraction** ● I can compare, add and subtract measures. including money ● I can use partitioning to make numbers large enough to subtract - 72 - 9 = 60 +12 - 9 = 60 + 3 = 63 ● 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). ● I can use efficient methods (think about splitting children) ● I can begin to use column method for addition.			**Multiplication and Division** ● I know that multiplication is commutative. ● I know what multiples are ● I can recall and use the multiplication and division facts for the 3,4,6 and 8 times tables ● I can use related facts to multiply multiples of 10 e.g. 2 x 3 = 6 and 2 x 30 = 60 ● 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', using pictorial representation. ● I understand the effect of multiplying and dividing by 1 and 0.I can solve problems involving measures including simple problems of scale e.g. twice and ten times more ● I can partition a number into 10s and ones to multiply (distributive law)			

Year 3 Spring Maths Overview

Spring Maths Lessons Y3

<table>
<tr><th></th><th>Week 1</th><th>Week 2</th><th>Week 3</th><th>Week 4</th><th>Week 5</th><th>Week 6</th></tr>
<tr><td>Sp1</td><td colspan="3">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', using pictorial representation.
I can divide 100 into 2,4,5 and 10 equal parts and use this to read scales</td><td colspan="3">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
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.</td></tr>
<tr><td>Sp2</td><td>ASSESSMENT WEEK</td><td colspan="2">Fractions, Percentages and Decimals
I can recognise fractions of shapes (unit and non-unit)
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 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 recognise and show using diagrams, simple equivalent fractions
I can work out fractions of amounts for common fractions 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 and recognise a whole as a fraction e.g. 2/5 + 1/5 = 3/5</td><td colspan="2">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
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.</td></tr>
</table>

Year 3 Summer Maths Overview

Summer Maths Lessons Y3

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6
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 write and interpret unit and non-unit fractions ● I can reason about the location of any fraction within 1 in the linear number system		**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 = $0._1$	**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 can read scales in 100s, 50s and 25s when not all the numbers are given	**Multiplication and Division** ● I can find remainders in division, using known facts - 16/5 will have a remainder of 1.	
S2	ASSESSMENT WEEK	**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		**Geometry** ● I can recognise right angles in 2D shapes and 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		**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

Year 3 Maths Meeting Overview

	Place Value	Addition and Subtraction	Multiplication and Division	Fractions, Decimals and Percentages	Measures			Shape	Statistics	Problem Solving
					Time	Money	LH/WM/CV			
Autumn	• I understand and know the value of each digit in a 3-digit number • I can begin to recognise some of the Roman numerals • 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 read and write numbers up to 1000 in numerals and words	• I know my addition and subtraction facts for all numbers up to 20 • (Y2 revision) I can partition 3-digt numbers into different combinations of 100s, 10s and 1s • (Y2 revision) I can find the relationships in number fact families	• I can count in 2s, 3s, 4s 5s and 10s (both multiples and sequences)	• I can recognise ½, ¼, 1/3 and 1/5 of 1 object or several objects	• I can tell and write the time to 5 minutes on a digital and an analogue 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.	• (Y2 revision) I can combine amounts to make a particular value	• I can read scales in divisions of 1s, 2s, 5s and 10s when not all the numbers are given.	• I can identify, describe and sort 2D shapes by naming them, talking about the number of sides and showing a vertical line of symmetry • I can identify, describe and sort 3D shapes by talking about the number of faces, edges and vertices	• 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 solve number puzzles (magic squares, magic triangles etc.)
Spring			• I can count from 0 in multiples of 4, 8, 50, 100	• 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 read the time to the nearest minute on an analogue clock and compare 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.		• I can read scales in 100s, 50s and 25s when all the numbers are given.	• I can compare 2D and 3D shapes • I can recognise 3D shapes in different orientations	• I can interpret and present data in charts and graphs including using a scale of 2, 5 and 10	
Summer		• I can estimate the answer to an addition or subtraction calculation	• I can count on in facts related to the times tables I know	• I can describe the relationship between unit and non-unit fractions with the same denominator	• 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 12-hour and 24-hour clocks		• I can read scales in 100s, 50s and 25s when not all the numbers are given.	• I can identify horizontal and vertical lines and pairs of perpendicular and parallel lines	• I can interpret data presented in a range of graphical representations with a greater range of scales	

Year 4 Autumn Maths Overview

Ready-to-progress objectives

Autumn Maths Lessons Y4

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7
A1	**Place Value** ● I can understand the value of each digit in a 4 digit number - e.g. I know that 100 is 10 times bigger that 10 and partition numbers into different combinations ● I can represent numbers in different ways e.g. words, numerals, base 10, etc. ● 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 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 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				**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 (beginning to cross the boundaries) ● I can use representations confidently to show the inverse operations to check calculations (triangle bar model), including problem solving. ● I can add 3 and 4 digit numbers using expanded or formal column addition		ASSESSMENT WEEK
A2	**Addition and Subtraction** ● 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 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).			**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. ● 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.		

Year 4 Spring Maths Overview

Spring Maths Lessons Y4

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6
Sp1	**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 ● 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 ● 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				**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. ● I can convert between different units of measure using my understanding of times and divide by 10, 100 and 1000	ASSESS MENT WEEK
Sp2	**Fractions** ● 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 fractions where the denominator is the same beyond a whole ● 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 ● I can reason about the location of mixed number fractions in the linear number system				**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

Summer Maths Lessons Y4

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6
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 use both £ and p in context and recognise equivalence e.g. 306p = £3.06 ● 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).		**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.	ASSESSMENT WEEK
S2	**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) ● I can translate shapes on a grid and describe the movement using left/right, up/down.		**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		**Statistics** ● I can present discrete and continuous data using bar charts and time charts etc. ● I am increasingly confident with using sorting diagrams (Venn, Carroll etc) for shapes and numbers. ● I can solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs	

Y4 Learning outside of the main maths lessons

Year 4										
	Place Value	Addition and Subtraction	Multiplication and Division	Fractions, Decimals and Percentages	Measures			Shape	Statistics	Problem Solving
					Time	Money	LH/WM/CV			
Autumn	• I can understand the value of each digit in a 4-digit number • I can say 1000 more or less than any given number • I can read Roman numerals to 100 • I can round any number to the nearest 10, 100, 1000 • I can count backwards through zero to include negative numbers	• I am confident with all of my number bonds to 20 and 100 • I can find related facts using my bonds to 20 and 100	• I can recall and use all multiplication and division facts for tables up to 12x12 • I can recognise patterns across all multiplication tables • I can recognise factor pairs of a number and multiples of single digit numbers	• I can describe the relationship between unit and non-unit fractions with the same • 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 order periods of time - 48 hours, 1 day, 35 days, 1 month, 1 fortnight.	• I can use both £ and p in context and recognise equivalence e.g. 306p = £3.06	• I can count in 25s to read on scales.	• I can identify lines of symmetry in 2D shapes presented in different orientations • I can describe the translation of shapes on a grid using left/right, up/down.	• 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. • I can solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs	• I can solve number puzzles (magic squares, magic triangles etc.)
Spring				• I can write the decimal equivalent of tenths and hundredths and recognise them in the context of money.	• I can solve problems involving calculating lengths of time - crossing hour boundaries.		• I can convert between different units of measure using my understanding of times and divide by 10, 100 and 1000	• I can identify, name and compare acute, right, obtuse and reflex angles		
Summer	• I can use < > = to complete equality and inequality statements for the four operations (33+17 • 96-45, 11x12 • 10x15)			• I know decimal the equivalent to 1/4, 1/2 and 3/4.				• I can name, describe and sort a variety of quadrilaterals and triangles based on their properties, including parallel and perpendicular lines.		

Year 5 Autumn Maths Overview

Ready-to-progress objectives

Autumn Maths Lessons Y5

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7
A1	**Place Value** ● 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			**Addition and Subtraction** ● I can use rounding to estimate and check answers to calculations ● 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 can recall quickly 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 ● 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 can recognise squared and cubed numbers and use the correct notation. ● I know and use the vocabulary of prime numbers, prime factor and composite (non-prime) numbers ● I can work out if any number to 100 is a prime number and know all primes up to 19.	
A2	**Multiplication and Division** ● I can recall quickly 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 ● I can multiply and divide numbers by 10, 100 and 1000 giving answers up to 3 decimal places			**Fractions** ● I can add and subtract fractions with the same denominators including recognising and converting improper fractions to mixed numbers ● I can compare and order fractions, where the denominators are multiples of the same number (simplifying). ● I can add and subtract fractions with denominators in the same fraction family (simplifying)			

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 HTO, ThHTO and whole numbers with up to 2 decimal places (e.g. money) by O ● I can solve problems involving multiplication ● I can divide 4 digit and 3 digit numbers by one digit. ● I can begin to represent a remainder as a fraction or decimal ● I can solve division problems interpreting remainders in a context and adjusting the answer appropriately. ● 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			**Fractions and Decimals** ● I can recognise and work out non-unit fractions of shapes, lengths and sets of objects e.g. 3/4 of a metre, or 2/5 of a bar of chocolate made of 20 pieces ● I can find equivalent fractions and understand that they have the same value and the same position in the linear number system. ● 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. ● I know that ten tenths are equal to 1 and that 1 is ten times the size of 0.1 ● I know that 100 hundredths are the equal to 1 one and that 1 is 100 times the size of 0.01		
Sp2	ASSESSMENT WEEK ***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 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. ● I am confident with decimal and percentage equivalents of 1/5 1/4, 1/2 and 3/4.		**Perimeter and Area** ● I can calculate and compare area of rectangles (incl squares) using cm2 and m2. ● 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
S1	**Geometry** ● I can draw and measure given angles in degrees ● 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			**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
S2	**Negative Numbers** ● I can interpret negative numbers in context ● I can find the difference between temperatures using negative and positive numbers.	**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		**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		

Y5 Learning outside the main maths lesson

Year 5

	Place Value	Addition and Subtraction	Multiplication and Division	Fractions, Decimals and Percentages	Measures		Shape	Statistics	Problem Solving
					Time	LH/WM/CV			
Autumn	• I can understand the value of each digit in a 5-digit number (read, write, order, compare) • I can understand the value of each digit in a 6-digit number (read, write, order, compare) • I can read Roman numerals to 1000 (link to the date/year) • I can count forwards and backwards in steps of powers of 10 for any given number up to 1,000,000 • I can round any number to the nearest 10, 100, 1000, 10,000 and 100,000 • I can divide 1 into 2, 4, 5 and 10 equal parts, and read scales/number lines marked in units of 1 with 2, 4, 5 and 10 equal parts.	• I can use rounding to estimate and check answers to calculations	• I can recall and use all multiplication and division facts for tables up to 12x12 and can use them confidently in larger calculations • 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 can read, write order and compare numbers that have a mixture of 1,2 or 3 decimal places • Reason about the location of any number with up to 2 decimals places in the linear number system, including identifying the previous and next multiple of 1 and 0.1 and rounding to the nearest of each.	• 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	• I can understand and use approximate equivalences between metric units and common imperial units • I can convert units of measurement to 2 decimal places – i.e. 1.28m=128cm	• I can identify and describe the position of a shape on a grid after a translation • I can identify and describe the position of a shape on a grid after a reflection on a line parallel to the axis	• I can read and interpret information in tables, including timetables	• I can solve increasingly complex number puzzles
Spring			• I know and use the vocabulary of prime numbers, prime factor and composite (non-prime numbers) • I can recognise squared and cubed numbers and use the correct notation	• I recognise and understand % as part of 100 and write % as a fraction and a decimal • I am confident with decimal and percentage equivalents 1/5 ¼ ½ ¾ • I can recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents			• I can identify 3D shapes from 2D representations	• I can solve comparison, sum and difference problems using information completed in line graphs	
Summer			• I can work out if any number to 100 is a prime number and know all primes up to 19			• I can find the difference between temperatures using negative and positive numbers	• I can calculate missing angles on a straight line (180°), at a point (360°) or in a right angle (90°) • I can find missing lengths and angles in rectangles using my knowledge of related facts	• I can begin to interpret pie charts, using my knowledge of fractions and percentages	

Year 6 Autumn Maths Overview

Autumn Maths Lessons Y6 Ready-to-progress objectives

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7
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 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 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 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 use my knowledge of the four operations to carry out calculations involving the four operations ● 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		

A2	Fraction ● I can use common multiples to express fractions in the same denomination ● I can use common factors to simplify fractions ● 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	**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

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 ●		**Decimals** ● ● 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. ● 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 ● I can use written division methods in cases where the number has up to two decimal places	
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		**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		**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 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	• 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	• 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
S1	**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 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.	Revision		
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. ● 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		

Year 6 Maths Objectives

Statutory Ready-to-progress objectives

Place Value	Four Operations	Fractions, Decimals & Percentages	Ratio and Proportion	Measures	Shape	Statistics	Algebra
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 subtract large numbers using formal column subtraction	I can use common multiples to express fractions in the same denomination	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 use, read, write and convert between standard units of measure using decimal notation up to 3 decimal places	I can accurately draw 2D shapes using given angles and dimensions or area	I can interpret and construct pie charts and line graphs	I can use simple formulae
I can round any whole number to a required degree of accuracy	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 common factors to simplify fractions	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	I can solve problems involving the calculation and conversion of units of measure using decimal notation up to three decimal places	I can recognise, describe and build simple 3D shapes including making nets	I can solve problems using the data from line graphs (including conversion graphs) and pie charts, including those I have constructed myself	I can generate and describe linear number sequences.
I can use negative numbers in context and calculate intervals across zero	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 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 solve problems involving similar shapes where the scale factor is known or can be found.	I can calculate, estimate and compare the volume of cubes and cuboids using standard units e.g. cm^3	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 calculate the mean as an average and understand when it is appropriate to find the mean of a set of data	I can express missing number problems algebraically
I can solve number and practical problems related to all of the above	I can multiply and divide numbers by 10, 100 and 1000 giving answers up to 3 decimal places	I can add and subtract fractions and mixed numbers with different denominators using the concept	I can solve problems involving unequal sharing and grouping using knowledge of fractions and multiples (ratio).	I can recognise when it is possible to use formulae to calculate area or volume	I can illustrate and name parts of a circle including radius, diameter and circumference and know that		I can find pairs of numbers that satisfy an equation with two

		of equivalent fractions			diameter is twice the radius		unknowns
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 multiply multi-digit numbers up to 4 digits by a 2-digit whole number using the formal written method of long multiplication	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 convert between miles and km	I can recognise vertically opposite angles and use this to calculate missing angles		I can enumerate possibilities of combinations of two variables
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 numbers up to 4 digits by a 2-digit whole number using long division	I can divide proper fractions by a whole number e.g. 1/3 divided by 2 = 1/6		I can investigate relationships between area and perimeter e.g. shapes with the same area can have different perimeters and vice versa.	I can draw and translate simple shapes on a 4-quadrant grid.		
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	I can divide numbers up to 4 digits by a 2-digit whole number using short division	I can associate fractions with division and prove decimal equivalence with 1/2, 1/4, 1/5, 1/3.		I can substitute values into a simple formula to solve problems (e.g. perimeter of rectangle or area of triangle).	I can reflect simple shapes on all 4 axes.		
	I can express a remainder as a whole number remainder, fraction, decimal or	I can calculate more complex decimal equivalents (such as 3/8 = 0.375)		I can calculate area of parallelograms and triangles.	I can label the axes of a grid in all 4 quadrants and describe a		

	rounded according to context	using my understanding of the equivalence between f,d,p			position on the grid.		
	I can identify common factors, common multiples and prime numbers, with increasingly large numbers	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.					
	I consistently check the reasonableness of my answer in all calculations	I can multiply one-digit numbers with up to two decimal places by whole numbers					
	I can solve multi-step word problems and investigations involving all 4 operations from a large range of contexts	I can use written division methods in cases where the number has up to two decimal places					
	I can use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy	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 my knowledge of the four operations to carry out calculations involving the four operations	I can use written division methods in cases where the number has up to two decimal places					
	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						

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.