Grangefield School
Flying high. Spreading our wings.

Maths Long Term Plan

Autumn 1

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7
EYFS	Staggered start and baseline assessments			Number and place value, numbers to 5 – 1,2,3 Time – my day	Number and place value, numbers to 5 – 4 Time – my day	Number and place value, numbers to 5 – 5 Spatial awareness Positional language	Number and place value, numbers to 5 – 1,2,3,4,5 Spatial awareness Positional language
Year 1	Basic number skills Introduction to different resources to support learning. How to use resources PUMA Rec Summer assessment	• Sort objects • Count objects • Represent objects • Count, read and write forwards from any number 0 to 10	• Count, read and writing backwards from any number 0 to 10 • Count one more • Count one less • One to one correspondence to start to compare groups	• Compare groups using language such as equal, more/greater, less/fewer • Introduce = , > and < symbols • Introduce = , > and < symbols • Compare numbers	• Order groups of objects • Order numbers • Ordinal numbers (1st, 2nd, 3rd ….) • The number line	• Part whole model • Addition symbol • Fact families – Addition facts • Find number bonds for numbers within 10 • Systematic methods for number bonds within 10	• Number bonds to 10 • Compare number bonds • Addition: Adding together • Addition: Adding more
Year 2	Recap place value knowledge from Year 1 PUMA Year 1 Summer assessment	•Count objects to 100 and read and write numbers in numerals and words •Represent numbers to 100 •Tens and ones with a part whole model	•Tens and ones using addition •Use a place value chart •Compare objects •Compare numbers	•Order objects and numbers •Count in 2s, 5s and 10s •Count in 3s	•Fact families – Addition and subtraction bonds to 20 •Check calculations •Compare number sentences •Related facts	•Bonds to 100 (tens) •Add and subtract 1s •10 more and 10 less •Add and subtract 10s	•Add a 2-digit and 1-digit number – crossing ten •Add three 1-digit numbers •Subtract a 1-digit number from a 2-digit number – crossing ten

Year 3	Recap place value knowledge from Year 2 PUMA Year 2 Summer assessment	•Hundreds •Represent numbers to 1,000 •100s, 10s and 1s (1) •100s, 10s and 1s (2)	•Number line to 1,000 •Find 1, 10, 100 more or less than a given number •Find 1, 10, 100 more or less than a given number	•Compare objects to 1,000 •Compare numbers to 1,000 •Order numbers •Count in 50s	•Add and subtract multiples of 100 •Add and subtract 3-digit numbers and ones – not crossing 10 •Add 3-digit and 1-digit numbers – crossing 10 •Subtract a 1-digit number from a 3-digit number – crossing 10	•Add and subtract 3-digit numbers and tens – not crossing 100 •Add a 3-digit number and tens – crossing 100 •Subtract tens from a 3-digit number – crossing 100 •Add and subtract 100s	•Spot the pattern – making it explicit •Add and subtract a 2-digit and 3-digit number – not crossing 10 or 100 •Add a 2-digit and 3-digit number – crossing 10 or 100 •Subtract a 2-digit number from a 3-digit number – cross the 10 or 100
Year 4	Recap place value knowledge from Year 3 PUMA Year 3 Summer assessment	•Roman numerals to 100 •Round to the nearest 10 •Round to the nearest 100	•Count in 1,000s •1,000s, 100s, 10s and 1s •Partitioning	•Number line to 10,000 •1,000 more or less •Compare numbers •Order numbers	•Round to the nearest 1,000 •Count in 25s •Negative numbers	•Add and subtract 1s, 10s, 100s and 1000s •Add two 4-digit numbers – no exchange •Add two 4-digit numbers – one exchange •Add two 4-digit numbers – more than one exchange	•Subtract two 4-digit numbers – no exchange •Subtract two 4-digit numbers – one exchange •Subtract two 4-digit numbers – more than one exchange
Year 5	Recap place value knowledge from Year 4 PUMA Year 4 Summer assessment	•Number to 10,000 •Roman numerals to 1,000 •Round to the nearest 10, 100 and 1,000 •Number to 100,000	•Compare and order numbers to 100,000 •Round numbers within 100,000 •Numbers to a million •Counting in 10s, 100s, 1,000s, 10,000s and 100,000s	•Counting in 10s, 100s, 1,000s, 10,000s and 100,000s •Compare and order numbers to a million •Round numbers to a million •Negative numbers	•Add whole numbers with more than 4-digits (column method) •Subtract whole numbers with more than 4-digits (column method)	•Round to estimate and approximate •Inverse operations (addition and subtraction) •Multi-step addition and subtraction problems	•Read and interpret line graphs •Draw line graphs

Year 6	Recap place value knowledge from Year 5 PUMA Year 5 Summer assessment	Continue to ensure chd have a secure knowledge of place value – recap previous years if necessary •Numbers to ten million •Compare and order any number	•Round any numbers •Negative numbers	•Add and subtract whole numbers •Multiply up to a 4-digit by 1-digit number •Short division •Division using factors	•Long division (1) •Long division (2) •Long division (3) •Long division (4)	•Common factors •Common multiples •Primes •Squares and cubes	•Order of operations •Mental calculations and estimation •Reasoning from known facts

Autumn 2

	Week 8	**Week 9**	**Week 10**	**Week 11**	**Week 12**	**Week 13**	**Week 14**		
EYFS	Addition and subtraction – sorting Sorting into groups	Addition and subtraction – change within 5 – one more 2D shapes	Addition and subtraction – change within 5 – one less 2D shapes	Number and place value – comparing groups – identical objects 3D shapes	Number and place value – comparing groups – non identical/identical objects 3D shapes	Addition and subtraction – sorting – sorting into groups 2D and 3D shapes	Recap Consolidation Assessment		
Year 1 Maths	• Finding a part • Subtraction: Taking away, how many left? Crossing out • Subtraction: Taking away, how many left? Introducing the subtraction symbol •Subtraction: Finding a part, breaking apart	•Fact families – The 8 facts •Fact families – The 8 facts •Subtraction: •Counting back Subtraction -	•Comparing addition and subtraction statements a + b > c •Comparing addition and subtraction statements a + b > c + d	•Recognise and name 3D shapes •Sort 3D shapes •Recognise and name 2D shapes •Sort 2D shapes •Patterns with 2D and 3D shapes	•Count forwards and backwards and write numbers to 20 in numerals and words •Numbers from 11 to 20 •Tens and ones •Count one more and one less	•Compare groups of objects • Compare numbers • Order groups of objects • Order numbers	Move objectives to this week depending where assessment week falls		

Year 2	•Add two 2-digit numbers – not crossing ten – add ones and add tens •Add two 2-digit numbers – crossing ten – add ones and add tens	•Subtract a 2-digit number from a 2-digit number – not crossing ten •Subtract a 2-digit number from a 2-digit number – crossing ten – subtract ones and tens •Bonds to 100 (tens and ones)	•Count money – pence •Count money – pounds (notes and coins) •Count money – notes and coins •Select money	•Make the same amount •Compare money •Find the total	•Recognise equal groups •Make equal groups •Add equal groups	•Multiplication sentences using the × symbol •Multiplication sentences from pictures •Use arrays	End of money unit – link to Christmas •Find the difference •Find change •Two-step problems		
Year 3	•Add two 3-digit numbers – not crossing 10 or 100 •Add two 3-digit numbers – crossing 10 or 100 •Subtract a 3-digit number from a 3-digit number – no exchange - practical	•Subtract a 3-digit number from a 3-digit number – no exchange •Subtract a 3-digit number from a 3-digit number – exchange •Estimate answers to calculations •Check	Week available if place value or addition and subtraction run over and dependent on assessment week	•Multiplication – equal groups •Multiplying by 3 •Dividing by 3 •The 3 times-table	•Multiplying by 4 •Dividing by 4 •The 4 times-table	•Multiplying by 8 •Dividing by 8 •The 8 times-table	Christmas maths or contingency depending on assessment week		
Year 4	•Efficient subtraction •Estimate answers •Checking strategies	•Kilometres •Perimeter on a grid •Perimeter of a rectangle •Perimeter of rectilinear shapes	•Multiply by 10 •Multiply by 100 •Divide by 10 •Divide by 100	•Multiply by 1 and 0 •Divide by 1	•Multiply and divide by 6 •6 times-table and division facts •Multiply and divide by 9 •9 times-table and division facts	•Multiply and divide by 7 •7 times-table and division facts	Christmas maths or contingency depending on assessment week		

Year 5	•Use line graphs to solve problems •Read and interpret tables •Two way tables •Timetables	•Multiples •Factors •Common factors •Prime numbers	•Square numbers •Cube numbers •Inverse operations (Multiplication and Division)	•Multiply by 10, 100 and 1,000 •Divide by 10, 100 and 1,000 •Multiply and divide by multiples of 10, 100 and 1,000	•Measure perimeter •Calculate perimeter •Area of rectangles •Area of compound shapes	•Estimate and approximate area	Christmas maths or contingency depending on assessment week		
Year 6	•Simplify fractions •Fractions on a number line •Compare and order fractions by the denominator •Compare and order fractions by the numerator	•Add and subtract fractions (1) •Add and subtract fractions (2) •Adding fractions •Subtracting fractions	•Mixed addition and subtraction problems •Multiply fractions by whole number •Multiply fractions by fraction	•Divide a fraction by a whole number (1) •Divide a fraction by a whole number (2)	•Four rules with fractions •Fraction of an amount •Fraction of an amount - finding the whole	• The first quadrant •Four quadrants •Translations •Reflections	Christmas maths or contingency depending on assessment week		

Spring 1

	Week 16	Week 17	Week 18	Week 19	Week 20	Week 21	
EYFS	Addition and subtraction – numbers to 5 – number bonds to 5 Weight	Number and place value – number to 10 – counting to 6, 7 and 8 Weight	Number and place value – number to 10 – counting to 9 and 10 Length/height	Number and place value – number to 10 – comparing groups up to 10 Length/height	Multiplication and division – numerical pattern – doubling Odd and even numbers	Multiplication and division – numerical pattern – halving and sharing Odd and even numbers	
Year 1	• Add by counting on • Find & make number bonds • Add by making 10	• Subtraction – Not crossing 10 • Subtraction – Crossing 10 (1) • Subtraction – Crossing 10 (2)	•Related Facts •Compare Number Sentences Time to catch up or consolidate	•Numbers to 50 •Tens and ones •Represent numbers to 50 •One more one less to 50	•Compare objects within 50 •Compare numbers within 50 •Order numbers within 50	•Count in 2s •Count in 5s	
Year 2	•Use arrays •Make equal groups – sharing •Make equal groups - grouping	•Odd & even numbers •Divide by 2 •Divide by 5 •Divide by 10	•Make tally charts •Draw pictograms (1-1) •Interpret pictograms (1-1) DO MOCK SATS AND DO THIS IS IN THE AFTERNOONS – COUNTING CARS ETC	•Draw pictograms (2, 5 and 10) •Interpret pictograms (2, 5 and 10) •Block diagrams	•Recognise 2D and 3D shapes •Count sides on 2D shapes •Count vertices on 2D shapes •Draw 2D shapes	•Lines of symmetry •Lines of symmetry •Sort 2D shapes •Make patterns with 2D	
Year 3	•Comparing statements •Related calculations •Multiply 2-digits by 1-digit (1) •Multiply 2-digits by 1-digit (2)	•Divide 2-digits by 1-digit (1) •Divide 2-digits by 1-digit (2) •Divide 2-digits by 1-digit (3)	•Scaling •How many ways?	•Pounds and pence •Converting pounds and pence •Adding money •Subtracting money •Giving change	•Pictograms •Bar Charts •Tables	•Measure length •Equivalent lengths – m & cm •Equivalent lengths – mm & cm •Compare lengths	

Year 4	•11 and 12 times table •Factor pairs •Efficient multiplication •Written methods	•Multiply 2-digits by 1-digit •Multiply 3-digits by 1-digit •Multiply 3 numbers	•Divide 2-digits by 1-digit (1) •Divide 2-digits by 1-digit (2) Divide 3 digits by 1-digit •Correspondence problems	•What is area? •Counting squares •Making shapes •Comparing area	•What is a fraction? •Equivalent fractions (1) •Equivalent fractions (2) •Fractions greater than 1	•Count in fractions •Add 2 or more fractions •Subtract 2 fractions •Subtract from whole amounts	
Year 5	•Multiply 4-digits by 1-digit •Multiply 2-digits (area model)	•Multiply 2-digits by 2-digits •Multiply 3-digits by 2-digits •Multiply 4-digits by 2-digits	•Divide 4-digits by 1-digit •Divide with remainders	•Equivalent fractions •Improper fractions to mixed numbers •Mixed numbers to improper fractions	•Number sequences •Compare and order fractions less than 1 •Compare and order fractions greater than 1	•Add and subtract fractions •Add fractions within 1 •Add 3 or more fractions •Add fractions •Add mixed numbers	
Year 6	•Three decimal places •Multiply by 10, 100 and 1,000 •Divide by 10, 100 and 1,000 •Multiply decimals by integers •Divide decimals by integers	•Divide decimals by integers •Division to solve problems •Decimals as fractions •Fractions to decimals (1) •Fractions to decimals (2)	•Fractions to percentages •Equivalent FDP •Order FDP	•Percentage of an amount (1) •Percentage of an amount (2) •Percentages – missing values	•Find a rule – one step •Find a rule – two step •Forming expressions •Substitution •Formulae	•Forming equations •Solve simple one step equations •Solve two step equations •Find pairs of values •Enumerate possibilities	

Spring 2

	Week 22	Week 23	Week 24	Week 25 –	Week 26	Week 27	
EYFS	Addition and subtraction – addition to 10 – combining two groups to find a whole Capacity	Addition and subtraction – addition to 10 – combining two groups to find a whole Capacity	Addition and subtraction – addition to 10 – number bonds to 10, tens frame Distance	Addition and subtraction – addition to 10 – number bonds to 10, tens frame Distance	Addition and subtraction – addition to 10 – number bonds to 10, parts/whole model Time – everyday language	Addition and subtraction – addition to 10 – number bonds to 10, parts/whole model	
Year 1	•Compare lengths and heights •Measure length (1) •Measure length (2)	•Introduce weight and mass •Measure mass •Compare mass	•Introduce capacity •Measure capacity •Compare capacity	Assessment week?	•Recognising coins •Recognising notes	•Counting in coins	
Year 2	•Count faces on 3D shapes •Count edges and vertices on 3D shapes •Sort 3D shapes •Make patterns with 3D shapes	• Make equal parts – link to division • Recognise a half • Find a half • Recognise a quarter • Find a quarter	• Recognise a third • Find a third • Unit fractions • Non-unit fractions	Assessment week	•Equivalence of ½ and 2/4 •Find three quarters •Count in fractions	•Measure length (cm) •Measure length (m) •Compare lengths •Order lengths •Four operations with lengths	
Year 3	•Add lengths •Subtract lengths •Measure perimeter •Calculate perimeter	•Unit and non-unit fractions •Making the whole •Tenths •Count in tenths	•Tenths as decimals •Fractions of a number line •Fractions of a set of objects (1)	Assessment week Could reinforce statistic skills in the afternoon practically	•Fractions of a set of objects (2) •Fractions of a set of objects (3)	•Equivalent fractions (1) •Equivalent fractions (2) •Equivalent fractions (3) From Summer 1	

Year 4	•Calculate fractions of a quantity •Problem solving – calculate quantities	•Recognise tenths and hundredths •Tenths as decimals •Tenths on a place value grid •Tenths on a number line	•Divide 1 digit by 10 •Divide 2 digits by 10 •Hundredths •Hundredths as decimals	Assessment week Do more on area practically in the afternoon if consolidation is needed	•Hundredths on a place value grid •Divide 1 or 2 digits by 100	Contingency week if any units overrun	
Year 5	•Subtract fractions •Subtract mixed numbers •Subtract – breaking the whole •Subtract 2 mixed numbers	•Multiply unit fractions by an integer •Multiply non-unit fractions by an integer •Multiply mixed numbers by integers	•Fraction of an amount •Using fractions as operators New unit •Decimals up to 2 d.p. •Decimals as fractions (1)	**Assessment week** •Decimals as fractions (2)	•Understand thousandths •Thousands as decimals •Rounding decimals •Order and compare decimals	•Understand percentages •Percentages as fractions and decimals •Equivalent F.D.P=	
Year 6	•Metric measures •Convert metric measures •Calculate with metric measures •Miles and kilometres •Imperial measures	•Shapes – same area •Area and perimeter •Area of a triangle (1) •Area of a triangle (2)	•Area of a triangle (3) •Area of a parallelogram •Volume – counting cubes •Volume of a cuboid	Assessment week	•Using ratio language •Ratio and fractions •Introducing the ratio symbol •Calculating ratio	•Using scale factors •Calculating scale factors •Ratio and proportion problems	

Summer 1

	Week 28	Week 29	Week 30	Week 31	Week 32	Week 33
EYFS	Addition and subtraction – count on and back – adding by counting on Making simple patterns	Addition and subtraction – count on and back – adding by counting on Making simple patterns	Addition and subtraction – count on and back – taking away by counting back Exploring more complex patterns	Addition and subtraction – count on and back – taking away by counting back Exploring more complex patterns	Multiplication and division - numerical pattern – doubling Money – snack cafe	Multiplication and division - numerical pattern – halving and sharing Money – snack cafe
Year 1	• Count in 10s • Make equal groups • Add equal groups	• Make arrays • Make doubles	• Make equal groups - grouping • Make equal groups - sharing	• Halving shapes or objects • Halving a quantity	• Find a quarter of a shape or object • Find a quarter of a quantity	• Describe turns • Describe Position (1) • Describe Position (2)
Year 2	• Describing movement • Describing turns • Describing movement and turns • Making patterns with shapes Chd will have looked at this CC via computing	Arithmetic recap – addition and subtraction, multiplication and division in preparation for SATS week	SATs week? or problem solving using efficient methods	SATs week?	•O'clock and half past •Quarter past and quarter to	•Telling the time to 5 minutes – this will take at least 3 days
Year 3	•Compare fractions •Order fractions •Add fractions •Subtract fractions	Time available if more time needed for fractions	•Months and years •Hours in a day •Telling the time to 5 minutes	•Telling the time to the minute •AM and PM •24 hour clock	•Finding the duration •Comparing the duration •Start and end times •Measuring time in seconds	•Turns and angles •Right angles in shapes •Compare angles •Draw accurately
Year 4	•Make a whole •Write decimals •Compare decimals	•Order decimals •Round decimals •Halves and quarters	•Pounds and pence •Ordering amounts of money	•Using rounding to estimate money •Four operations	•Hours, minutes and seconds •Years, months, weeks and days	•Analogue to digital – 12 hour •Analogue to digital – 24 hour

Year 5	•Adding decimals within 1 •Subtracting decimals within 1 •Complements to 1 •Adding decimals – crossing the whole	•Adding decimals with the same number of decimal places •Adding decimals with a different number of decimal places •Subtracting decimals with the same number of decimal places •Subtracting decimals with a different number of decimal places	•Adding and subtracting wholes and decimals •Decimal sequences •Multiplying decimals by 10, 100 and 1,000 •Dividing decimals by 10, 100 and 1,000	•Measuring angles in degrees •Measuring with a protractor (1) •Measuring with a protractor (2) •Drawing lines and angles accurately	•Calculating angles on a straight line •Calculating angles around a point •Calculating lengths and angles in shapes	•Regular and irregular polygons •Reasoning about 3D shapes
Year 6	•Measure with a protractor •Introduce angles •Calculate angles •Vertically opposite angles •Angles in a triangle	•Angles in a triangle – special cases •Angles in a triangle – missing angles •Angles in special quadrilaterals •Angles in regular polygons	•Draw shapes accurately •Nets of 3D shapes SATs prep	SATs	Use this time to cover any objectives missed due to SATs prep. Residential?	Use this time to cover any objectives missed due to SATs prep. Residential?

Summer 2

	Week 34	Week 35	Week 36	Week 37	Week 38	Week 39		
EYFS	Number and place value – numbers to 20 – counting to 20 Solving number problems – doubling / halving and sharing	Number and place value – numbers to 20 – counting to 20 Solving number problems – doubling / halving and sharing	Recap/gap filling/assessment Solving number problems – doubling / halving and sharing	Recap/gap filling/assessment	Consolidation of Geometry as covered throughout the year.			
Year 1	•Counting to 100 •Partitioning numbers •Comparing numbers (1)	•Comparing numbers (2) • Ordering numbers • One more, one less	Assessment week?	•Before and after •Dates •Time to the hour	•Time to the half hour •Writing time •Comparing time	Consolidation or recapping of counting in 2,5 and 10		
Year 2	•Minutes in an hour, hours in a day •Find durations of time •Compare durations of time	More time available for time if needed or consolidation	Assessment week?	•Compare mass •Measure mass in grams •Measure mass in kilograms	•Compare volume •Millilitres •Litres •Temperature	Consolidation or recapping of 2,5 and 10 x table		
Year 3	•Horizontal and vertical •Parallel and perpendicular	•Recognise and describe 2D shapes •Recognise and describe 3D shapes •Make 3D shapes	Assessment week	•Measure mass (1) •Measure mass (2) •Compare mass •Add and subtract mass	•Measure capacity (1) •Measure capacity (2) •Compare capacity •Add and subtract capacity	Consolidation or recapping of 3, 4 and 8 times table		

Year 4	•Interpret charts •Comparison, sum and difference •Introducing line graphs •Line graphs	•Identify angles •Compare and order angles	Assessment week •Triangles •Quadrilaterals – practically in the afternoons if possible	•Lines of symmetry •Complete a symmetric figure	•Describe position •Draw on a grid •Move on a grid •Describe a movement on a grid	Statistics has been condensed into a week rather than 2 so use this week to recap if children are still finding this tricky		
Year 5	•Position in the first quadrant •Reflection •Reflection with coordinates •Translation •Translation with coordinates	•Kilograms and kilometres •Milligrams and millilitres •Metric units •Imperial units	Assessment week Do basics of telling the time – recapping time to the nearest minute and 12/24hr conversion in the afternoons	•Converting units of time •Timetables	•What is volume? •Compare volume •Estimate volume •Estimate capacity	Spend more time of telling the time if required		
Year6	•Read and interpret line graphs •Draw line graphs •Use line graphs to solve problems •Circles	•Read and interpret pie charts •Pie charts with percentages •Draw pie charts •The mean	Use this time to complete any blocks missed or skimmed depending on cohort need in preparation for SATs - teacher to use professional judgement and need based on mock SATs completed throughout the year. If this time is not needed for that, children to complete investigations using Nrich, NCETM, see WR website from problem solving and investigation ideas too.					