

Year Five

Overview



	Autumn Term		Spring Term		Summer Term	
Maths Topics	<ul style="list-style-type: none"> Reasoning with large whole numbers Problem solving with integer addition and subtraction Line graphs and timetables Multiplication and division Area and perimeter Y4 2-D shape content 		<ul style="list-style-type: none"> Fractions and decimals Angles Fractions, decimals and percentages Transformations 		<ul style="list-style-type: none"> Converting units of measure Calculating with whole numbers and decimals 2-D and 3-D shape Volume Calculating with whole numbers and decimals 	
Arithmetic Topics Items in blue indicate topics from the previous year for revision.	Addition <ul style="list-style-type: none"> Add multiples of 10, 100 and 1,000 to a number (up to 9,999) Add numbers up to 4 digits using formal method of column addition Add with decimals (up to tenths and hundredths) Add multiples of 10, 100, 1,000, 10,000 and 100,000 to a number (up to 999,999) Add numbers with more than 4 digits using formal method of column addition Add decimals (where two numbers have a different number of decimal places eg $14.7 + 8.65$) Apply knowledge of partitioning 	Multiplication <ul style="list-style-type: none"> Multiply 2 and 3 digit numbers by a 1-digit number using a formal written method Multiply a whole number by 100 Multiply more than two numbers together Multiply a 3-digit number by a 2-digit number using formal method of long multiplication Multiply whole numbers by 10, 100 and 1,000 (where the answer is no greater than 999,999) Multiply decimal numbers by 10, 100 and 1,000 where the quotient may be a decimal 	Fractions <ul style="list-style-type: none"> Add and Subtract fractions where the answer may be an improper fraction Find fractions of quantities using known multiplication facts Add fractions with the same denominators and convert the answer from improper fractions to mixed numbers Add and subtract fractions where there are different denominators and one fraction is a multiple of the other (and one fraction may be a mixed number) Multiply proper fractions and 	All content	All content	All content

	<p>with numbers up to 1,000,000</p> <p>Subtraction</p> <ul style="list-style-type: none"> • Subtract multiples of 10, 100 and 1,000 from a number (up to 9,999) • Subtract numbers up to 4 digits using formal method of column subtraction • Subtract with decimals (up to tenths and hundredths) • Subtract multiples of 10, 100, 1,000, 10,000 and 100,000 from a number (up to 999,999) • Subtract numbers with more than 4 digits using formal method of column subtraction • Subtract decimals (where two numbers have a different number of decimal places eg 14.7 - 8.65) 	<ul style="list-style-type: none"> • Recognise and use square and cube numbers • Multiply multiples of 10 by 10, 100 or 1,000 (e.g. 30 x 400) <p>Division</p> <ul style="list-style-type: none"> • Use known multiplication facts to create associated division facts • Divide one or two digit numbers by 100 • Divide multiples of 10, 100 and 1,000 by a single digit number using associated division facts • Divide numbers up to 4 digits by a 1-digit number using the formal written method of long division (recording with a remainder where required) • Divide whole numbers by 10, 100 and 1,000 (where the quotient contains a decimal and the dividend may contain a decimal) 	<p>mixed numbers by whole numbers</p> <ul style="list-style-type: none"> • Find fractions of quantities using formal calculation strategies <p>Percentages</p> <ul style="list-style-type: none"> • Find 10% of a number • Find a multiple of 10% of a number • Find 5% of a number 			
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Maths Meetings Content (see Maths Mastery document for further detail)	<ul style="list-style-type: none"> • Number • Measures • Statistics • Geometry 	<ul style="list-style-type: none"> • Number • Measures • Statistics 	<ul style="list-style-type: none"> • Number • Geometry
Assessments & CCR deadlines	<ul style="list-style-type: none"> • Baseline PUMA - Summer Year 4 (14th October) • Cumulative arithmetic x2 (14th October & 16th December) • Formative pre and post unit quizzes 	<ul style="list-style-type: none"> • PUMA – Autumn Year 5 (5th February) • Cumulative arithmetic x2 (5th February & 26th March) • Formative pre and post unit quizzes 	<ul style="list-style-type: none"> • Cumulative arithmetic (26th May) • Mock SATs – June 2018 papers (16th July) • Formative pre and post unit quizzes

Autumn Term

	Monday	Tuesday	Wednesday	Thursday	Friday
Unit 1: Reasoning with large whole numbers					
Week 1	Y5 U1 Pre-unit quiz	Y4 U13 L1 Investigate the place value of different number systems	Y4 U13 L2 Investigate the Roman Numerals up to one hundred	Y5 U1 L1 Identify the value of each digit in a 5-digit whole number	Y5 U1 L2 Compare 5-digit numbers
Week 2	Y5 U1 L3 Order and compare 5-digit numbers	Y5 U1 L4 Round 5-digit numbers to the nearest 100, 1000 or 10 000	Y5 U1 L5 Identify the place value of each digit in a 6-digit whole number	Y5 U1 L6 Compare and order 6-digit numbers	Y5 U1 L7 Order and compare 6-digit numbers
Week 3	Y5 U1 L8 Round 6-digit numbers to the nearest 1000, 10 000 or 100 000	Y5 U1 L9 Practise rounding skills	Y5 U1 L10 Read Roman numerals to 1000 (M) and compare to our base ten number system	Y5 U1 Post-unit quiz Y5 U2 Pre-unit quiz	Plan lesson based on gaps identified in Y5 U2 pre-unit quiz.
Unit 2: Problem solving with integer addition and subtraction					
Week 4	Y5 U2 L1 Use and explain a variety of addition and subtraction strategies	Y5 U2 L2 Add and subtract multiples of 10, 100, 1000, 10 000 and 100 000	Y5 U2 L3 Add and subtract using a round and adjust strategy	Y5 U2 L4 Use a range of mental partitioning strategies to add and subtract	Y5 U2 L5 Use rounding to estimate calculations
Week 5	Y5 U2 L6 Use column addition to calculate with large whole numbers	Y5 U2 L7 Use column subtraction to calculate with large whole numbers	Y5 U2 L8 Use column addition to calculate with large whole numbers	Y5 U2 L9 Use a range of mental subtraction strategies	Y5 U2 Post-unit quiz Y5 U3 Pre-unit quiz

	Monday	Tuesday	Wednesday	Thursday	Friday
Unit 3: Line graphs and timetables					
Week 6	Y5 U3 L1 Read and interpret information presented in a line graph	Y5 U3 L2 Read and interpret information presented in a line graph	Y5 U3 L3 Read and interpret information presented in a line graph	Y5 U3 L4 Read and interpret information in tables and line graphs	Y5 U3 L5 Present information as a line graph
Week 7	Y5 U3 L6 Read and interpret information presented in line graphs and tables	Y5 U3 L7 Read and interpret information presented in timetables	Y5 U3 L8 Read and interpret information in timetables	<i>Left for assessment purposes.</i>	
Half-term					
Unit 3: Line graphs and timetables			Unit 4: Multiplication and division		
Week 8	Y5 U3 L9 Read and interpret information in timetables	Y5 U3 Post-unit quiz Y5 U4 Pre-unit quiz	Y5 U4 L1 Identify multiples and factors	Y5 U4 L2 Find all factor pairs of a number	Y5 U4 L3 Establish if a number less than 100 is prime
Week 9	Y5 U4 L4 Solve problems using knowledge of factors and multiples	Y5 U4 L5 Multiply and divide by 10, 100 and 1000 (with whole number answers)	Y5 U4 L6 Multiply and divide numbers mentally using doubling and halving strategies	Y5 U4 L7 Multiply and divide mentally using derived facts	Y5 U4 L8 Solve problems using a range of calculation strategies
Week 10	Y5 U4 L9 Use a formal written method to multiply	Y5 U4 L10 Multiply by a two-digit number using long multiplication	Y5 U4 L11 Multiply and divide using knowledge of factors	Y5 U4 L12 Use multiples to divide	Y5 U4 L13 Use a written method to divide

	Monday	Tuesday	Wednesday	Thursday	Friday
Unit 4: Multiplication and division			Unit 5: Area and perimeter		
Week 11	Y5 U4 L14 Solve problems involving division with remainders	Y5 U4 Post-unit quiz Y5 U5 Pre-unit quiz	Plan lesson based on gaps identified in U5 pre-unit quiz	Y5 U5 L1 Calculate and measure perimeter	Y5 U5 L2 Calculate the area of rectangles
Week 12	Y5 U5 L3 Calculate the area of non-rectilinear shapes	Y5 U5 L4 Compare the area and perimeter of rectangles	Y5 U5 L5 Calculate the area of non-rectilinear shapes	Y5 U5 Post-unit quiz Y5 U6 Pre-unit quiz	Plan lesson based on gaps identified in U6 pre-unit quiz
Extra unit: Y4 2-D shape learning					
Week 13	Y4 U11 L6 Compare and classify 2-D shapes	Y4 U11 L7 Compare and classify quadrilaterals	Y4 U11 L8 Compare and classify right angled and equilateral triangles	Y4 U11 L9 Compare and classify isosceles and scalene triangles	Y4 U11 L11 Identify lines of symmetry in 2-D shapes
Week 14	Left for flexibility in planning and to account for assessments.				

Spring Term

	Monday	Tuesday	Wednesday	Thursday	Friday
Unit 6: Fractions and decimals					
Week 1	Inset day	Y5 U6 L1 Draw, identify, name and write fractions	Y5 U6 L2 Represent, identify, name and write fractions	Y5 U6 L3 Identify, name and write equivalent fractions	Y5 U6 L4 Identify, name and write equivalent tenths and hundredths
Week 2	Y5 U6 L5 Compare and order fractions	Y5 U6 L6 Read and write decimal numbers as fractions	Y5 U6 L7 Recognise and use thousandths and relate them to tenths and hundredths	Y5 U6 L8 Order and compare fractions and decimals	Y5 U6 L9 Recognise mixed numbers and improper fractions and convert from one form to the other
Week 3	Y5 U6 L10 Plan consolidation lesson based on L2-9.	Y5 U6 L11 Compare and order decimals with up to three decimal places	Y5 U6 L12 Round decimals with two decimal places to the nearest whole number and to one decimal place	Y5 U6 L13 Solve problems involving fractions and division	Y5 U6 Post-unit quiz Y5 U7 Pre-unit quiz
Unit 7: Angles					
Week 4	Y4 U11 L2 Identify right angles	Y4 U11 L3 Identify acute and obtuse angles	Y4 U11 L4 Investigate angles within shapes	Y5 U7 L1 Classify, compare and order acute, obtuse and reflex angles	Y5 U7 L2 Use a protractor to measure angles
Week 5	Y5 U7 L3 Use a protractor to draw angles	Y5 U7 L4 Know that angles at a point are equal to 360 degrees	Y5 U7 L5 Measure and draw reflex angles	Y5 U7 L6 Identify angles at a point on a straight line total 180°	Y5 U7 L7 Investigate angles at a point and within shapes

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Week 6	Y5 U7 L8 Investigate angles within shapes	Y5 U7 L9 Plan consolidation lesson based on whole unit.	Y5 U7 Post-unit quiz Y5 U8 Pre-unit quiz	Left for flexibility in planning and to account for assessments.	
Half-term					
Unit 8: Fractions, decimals and percentages					
Week 7	Y5 U8 L1 Add and subtract fractions with the same denominator	Y5 U8 L2 Add and subtract fractions with denominators that are multiples of the same number	Y5 U8 L3 Add and subtract fractions including improper fractions and mixed numbers	Y5 U8 L4 Multiply a fraction by a whole number	Y5 U8 L5 Multiply a mixed number by a whole number
Week 8	Y5 U8 L6 Calculate fractions of quantities	Y5 U8 L7 Solve problems involving fractions and measures	Y5 U8 L8 Understand that percent relates to 'number of parts per hundred'	Y5 U8 L9 Write percentage as a fraction and as a decimal	Y5 U8 L10 Know fraction equivalents of percentages that are multiples of 10 or 25
Unit 8: Fractions, decimals and percentages				Unit 9: Transformations	
Week 9	Y5 U8 L11 Solve problems involving knowledge of fractions and percentages	Y5 U8 L12 Solve problems involving knowledge of fractions and percentage equivalents	Y5 U8 Post-unit quiz Y5 U9 Pre-unit quiz	Y5 U9 L1 Identify, describe and represent the position of a shape following a translation	Y4 U12 L1 Describe positions on a 2-D grid as coordinates
Week 10	Y4 U12 L4&5 Describe movements between positions as translations of a given unit to the left/ right or up/down	Y5 U9 L2 Describe positions on a 2-D grid as coordinates	Y5 U9 L3 Use coordinates to describe position following a translation	Y5 U9 L4 Use coordinates to describe position following a translation	Y5 U9 L5 Plan consolidation lesson for L1-4

	Monday	Tuesday	Wednesday	Thursday	Friday
Week 11	Y5 U9 L6 Identify, describe and represent position following a reflection	Y5 U9 L7 Use coordinates to describe position after reflection	Y5 U9 L8 Reflect shapes across the x-axis and the y-axis	Y5 U9 L9 Explore reflections and translations	Y5 U9 Post-unit quiz Y5 U10 Pre-unit quiz
Week 12	Left for flexibility in planning and accounting for assessments.			School closed	School closed

Summer Term

	Monday	Tuesday	Wednesday	Thursday	Friday
Unit 10: Converting units of measure					
Week 1	Y5 U10 L1 Solve problems involving converting between seconds, minutes and hours	Y5 U10 L2 Convert between units of time	Y4 U10 L2 Convert between millimetres and centimetres	Y4 U10 L3 Convert between centimetres and metres	Y5 U10 L3 Convert between units of length
Week 2	Y5 U10 L4 Convert between units of length	Y5 U10 L5 Convert between units of length in the context of perimeter	Y5 U10 L6 Convert between miles and kilometres	Y4 U10 L4 Convert between units of measurement	Y5 U10 L7 Convert between g, kg and tonnes
Week 3	Bank holiday	Y5 U10 L8 Understand lb and convert kg to lb	Y5 U10 L9 Consolidate and apply learning in the context of the Vitruvian Man	Y5 U10 Post-unit quiz Y5 U11 Pre-unit quiz	Plan lesson based on gaps identified in U11 pre-unit quiz.

	Monday	Tuesday	Wednesday	Thursday	Friday
Unit 11: Calculating with whole numbers and decimals					
Week 4	Y5 U11 L1 Represent decimal numbers in a variety of ways	Y5 U11 L2 Multiply and divide by 10, 100 and 1000 involving decimal numbers	Y5 U11 L3 Derive addition and subtraction calculations involving decimal numbers	Y5 U11 L4 Use a range of strategies to add decimal numbers	Y5 U11 L5 Use a range of strategies to subtract decimal numbers
Week 5	Y5 U11 L6 Solve addition and subtraction problems involving decimal numbers	Y5 U11 L7 Multiply a decimal number by a whole number	Y5 U11 L8 Use a written method to multiply decimal numbers	Y5 U11 L9 Use a range of multiplication strategies with decimal numbers	Y5 U11 L10 Solve problems involving decimal numbers
Week 6	Y5 U11 L13 Multiply by a two-digit number using long multiplication	Y5 U11 L14 Use the written method of long multiplication	Y5 U11 Post-unit quiz Y5 U12 Pre-unit quiz	<i>Left for flexibility in planning and accounting for assessments.</i>	
Half-term					
Unit 12: 2-D and 3-D shape					
Week 7	Y5 U12 L1 Identify, compare and classify geometric shapes based on their properties	Y5 U12 L2 Identify a polygon as regular or irregular based on reasoning about equal sides and angles	Y5 U12 L3 Compare and classify triangles based on their properties	Y5 U12 L4 Identify, compare and classify quadrilaterals based on their properties	Y5 U12 L5 Use the term diagonal and make conjectures about angles formed
Week 8	Y5 U12 L7 Identify, compare and classify 3-D shapes based on their properties	Y5 U12 L8 Recognise 2-D representations of 3-D shapes	Y5 U12 L9 Build simple 3-D shapes, including making nets	Y5 U12 L10 Illustrate and name parts of circles	Y5 U12 Post-unit quiz Y5 U13 Pre-unit quiz

	Monday	Tuesday	Wednesday	Thursday	Friday
Unit 13: Volume					
Week 9	Y5 U13 L1 Recognise and use cube numbers and the notation for cubed (³)	Y5 U13 L2 Use centimetre cubes to estimate volume	Y5 U13 L3 Visualise and estimate volume of solids	Y5 U13 L4 Convert units of volume	Y5 U13 Post-unit quiz Y5 U14 Pre-unit quiz
Unit 14: Calculating with whole numbers and decimals					
Week 10	Y5 U14 L1 Calculate intervals across zero	Y5 U14 L2 Solve problems involving division with remainders	Y5 U14 L3 Solve problems involving division with remainders	Y5 U14 L4 Calculate and interpret the mean as an average	Y5 U14 L5 Develop strategies to plan and solve problems
Week 11	Y5 U14 L6 Add two or more numbers mentally	Y5 U14 L7 Calculate across zero	Y5 U14 L8 Investigate properties of number	Y5 U14 L9 Explore properties of palindromic numbers	Y5 U14 L10 Explore properties of number
Week 12	Y5 U14 Post-unit quiz	<i>Left for flexibility in planning and accounting for assessments.</i>			
Week 13	<i>Left for flexibility in planning and accounting for assessments.</i>				