

Math Medium Term Plan – Year 4



Southridge First
School

Year 4 Math Medium Term Planning Autumn 1

Date	Week	Topic	Math Objectives
		Number and place Value	<p>Read Roman numerals to 100 and understand that over time, the numeral system changes to include the concept of zero and place value.</p> <ul style="list-style-type: none"> ➤ Read Roman numerals from 1 to 10 ➤ Read Roman numerals to 50 ➤ Read Roman numerals to 100 ➤ Write Roman numerals from 1 to 10 ➤ Write Roman numerals to 50 ➤ Write Roman numerals to 100
		Number and place Value	<p>Compare and order numbers beyond 1000</p> <ul style="list-style-type: none"> ➤ Know which number in a set of 4 digit numbers is the greatest ➤ Know which number in a set of 4 digit numbers is the smallest ➤ Order a set of 4 digit numbers from smallest to largest ➤ Order a set of 4 digit numbers from largest to smallest
		Addition and subtraction	<p>Add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction, where appropriate. Measure the perimeter of simple 2D shapes.</p> <ul style="list-style-type: none"> ➤ Add numbers with 4-digits without exchanging ➤ Add numbers with 4-digits where the total of hundreds, tens or ones exceed 10 ➤ Subtract a number from a 4-digit number which requires no exchanging ➤ Subtract a number from a 4-digit number where exchanging is required
		Addition and subtraction	<p>Estimate and use inverse operations to check answers to a calculation.</p> <ul style="list-style-type: none"> ➤ Estimate the answer to any given addition involving two 2-digit numbers to the nearest 10. ➤ Estimate the answer to any given addition involving two 3-digit numbers to the nearest 100. ➤ Estimate the answer to any given addition involving two 3-digit numbers to the nearest 10. ➤ Estimate the answer to any given subtraction involving two 2-digit numbers to the nearest 10. ➤ Estimate the answer to any given subtraction involving two 3-digit numbers to the nearest 100. ➤ Estimate the answer to any given subtraction involving two 3-digit numbers to the nearest 10. ➤ Explain the term 'inverse' and exemplify with an example. ➤ Check the answer to any calculation with 2 and 3 digit numbers using the inverse.
		Geometry shape	<p>Compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes.</p> <ul style="list-style-type: none"> ➤ Sort shapes according to their properties using correct vocabulary ➤ Draw and classify shapes based on given criteria, then sort

		Measures Time	<p>Read, write & convert time between analogue and digital 12- and 24-hour clocks.</p> <ul style="list-style-type: none">➤ Know how to set out each analogue time in digital format➤ Know how to set out each digital time in analogue format.➤ Convert between analogue and digital and vice versa➤ Explain how the digital clock system works, e.g. 10 past 2 in the afternoon = 2:10pm = 14:10.
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Year 4 Math Medium Term Planning Autumn 2

Date	Week	Topic	Math Objectives
		Multiplication and Division - Mental	<p>Recall multiplication and division facts for tables up to 12x12.</p> <ul style="list-style-type: none"> ➤ Count in 6s; forward and backwards. ➤ Recite the x6 tables up to x12, without error. ➤ Answer any calculation involving x6, out of order. ➤ Know that 2x6 is the same as 6x2 etc. ➤ Answer any calculation involving ÷6, out of order. ➤ Count in 7s; forward and backwards. ➤ Recite the x7 table up to x12, without error. ➤ Answer any calculation involving x7, out of order. ➤ Know that 3x7 is the same as 7x3 etc. ➤ Answer any calculation involving ÷7, out of order. ➤ Count in 9s; forward and backwards. ➤ Recite the x9 table up to x12, without error. ➤ Answer any calculation involving x9, out of order. ➤ Know that 4x9 is the same as 9x4 etc. ➤ Answer any calculation involving ÷9, out of order. ➤ Recall multiplication facts for all tables up to 12x12 out of order ➤ Recall division facts for all tables up to 12x12 out of order
		Multiplication and Division	<p>Recognise and use factor pairs and commutativity in mental calculations.</p> <ul style="list-style-type: none"> ➤ Explain the term 'factor pair'. ➤ Know all the factors within all numbers to 10. ➤ Work out all the factors of any number to 144. ➤ Know the term 'square number' and recall all square numbers associated with numbers 1 – 144.
		Geometry – 2D shape	<p>-Identify lines of symmetry in 2D shapes presented in different orientations. - Complete a simple symmetric figure with respect to a specific line of symmetry</p> <ul style="list-style-type: none"> ➤ Define and show understanding of symmetry ➤ Show lines of symmetry in an equilateral or isosceles triangle (in different orientations) ➤ Show lines of symmetry in a quadrilateral (in different orientations) ➤ Show lines of symmetry in circle ➤ Create simple symmetrical figures and show lines of symmetry ➤ Recognise lines of symmetry in given shapes
		Geometry- position and direction	<p>Describe positions on a 2D grid as coordinates in the first quadrant</p> <ul style="list-style-type: none"> ➤ Read coordinates using both axes ➤ Plot points using both axes ➤ Answer questions involving coordinates ➤ Create shapes by plotting points in first quadrant
		Statistics	<p>Interpret and present discrete and continuous data using appropriate graphical methods, including: bar charts/ time graphs</p> <ul style="list-style-type: none"> ➤ 'Tell the story' of a bar chart with no scales on the axes ➤ 'Tell the story' of a bar chart with scales on the axes ➤ 'Tell the story' of a time graph with no scales on the axes ➤ 'Tell the story' of a time graph with scales on the axes ➤ Construct a bar chart with correct labelling of both axes ➤ Plot information on a time graph
		Consolidate and Assess	<p>Start this week by revising the learning covered in the Autumn term so as to ensure pupils are fluent and secure with their basic skills. Refocus mental starters as needed.</p>

Year 4 Math Medium Term Planning Spring 1

Date	Week	Topic	Math Objectives
		Number and place Value	<p>Round any number to the nearest 10, 100 or 1000</p> <ul style="list-style-type: none"> ➤ Round any number up to 100 to the nearest 10 ➤ Round any number up to 1000 to the nearest 10 ➤ Round any number up to 1000 to the nearest 100 ➤ Round any number up to 10,000 to the nearest 1000
		Multiplication	<p>Multiply 2-digit and 3-digit numbers by a 1-digit number using formal written layout.</p> <ul style="list-style-type: none"> ➤ Multiply a multiple of 100 by a single-digit number mentally, using 2, 3, 4, 5, 6, 7, 8 and 9x. ➤ Multiply a 2-digit number by a single digit number using 2, 3, 4, 5, 6, 7, 8, 9x. ➤ Multiply a 3-digit number by a single digit number using 2, 3, 4, 5, 6, 7, 8, 9x.
		Multiplication and Division	<p>Use place value, known and derived facts to multiply and divide mentally, including multiplying by 0 and 1; multiplying three numbers together.</p> <ul style="list-style-type: none"> ➤ Use all table facts up to 12x12 in calculations involving multiplication and division. ➤ Know what happens when multiplying by 0 or 1. ➤ Know what happens when dividing by 1. ➤ Know what happens when three numbers are multiplied together.
		Fractions	<p>Recognise and show, using diagrams, families of common equivalent fractions.</p> <ul style="list-style-type: none"> ➤ Know all equivalent fractions of $\frac{1}{2}$ up to and including the denominator 12 ➤ Know all equivalent fractions of $\frac{1}{4}$ up to and including the denominator 12 ➤ Know all equivalent fractions of $\frac{3}{4}$ up to and including the denominator 12 ➤ Know all equivalent fractions of $\frac{1}{3}$ up to and including the denominator 12 ➤ Know all equivalent fractions of $\frac{2}{3}$ up to and including the denominator 12
		Fractions	<p>Add and subtract fractions with the same denominator.</p> <ul style="list-style-type: none"> ➤ Add two fractions with the same denominator that add up to more than one whole. ➤ Subtract one fraction from another with the same denominator crossing one whole
		Measures - Perimeter	<p>Measure and calculate the perimeter of a rectilinear figure (including squares) in cm and m.</p> <ul style="list-style-type: none"> ➤ Know the formula for calculating the perimeter of a rectangle (2 x length plus 2 x breadth) ➤ Know that the perimeter of an irregular shape can be calculated by adding the length of each individual side together

Year 4 Math Medium Term Planning Spring 2

Date	Week	Topic	Math Objectives
		Area	<p>Find the area of rectilinear shapes by counting squares.</p> <ul style="list-style-type: none"> ➤ Count squares to identify the area of a shape. ➤ Draw shapes of a given size, e.g. 20 squares. ➤ Introduce the term square centimetre/cm² <p>Use the formula for calculating the area of a rectilinear shape ($l \times b$)</p>
		Place value – negative numbers	<p>Count backwards through zero to include negative numbers</p> <ul style="list-style-type: none"> ➤ Know that the value of any negative number is less than 0 ➤ Know which of two negative numbers is greater ➤ Know which of two negative numbers is smaller ➤ Count accurately forwards from any negative number to any positive number, moving across 0 ➤ Count accurately backwards from any positive number to any negative number, moving across 0 ➤ Order a set of negative and positive numbers showing smallest to largest ➤ Order a set of negative and positive numbers showing largest to smallest
		Addition and subtraction	<p>Consolidate Add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate.</p> <ul style="list-style-type: none"> ➤ Add numbers with 4-digits without exchanging ➤ Add numbers with 4-digits where the total of hundreds, tens or ones exceed 10 ➤ Subtract a number from a 4-digit number which requires no exchanging ➤ Subtract a number from a 4-digit number where exchanging is required
		Multiplication and Division	<p>Divide 2-digit and 3-digit numbers by a 1-digit number using formal written layout with no remainder.</p> <ul style="list-style-type: none"> ➤ Divide a multiple of 10 by a single digit number using 2, 3, 4, 5, 6, 7, 8, 9x with no remainder. ➤ Divide a 2-digit number by a single digit number using 2, 3, 4, 5, 6, 7, 8, 9x with no remainder. ➤ Divide a 3-digit number by a single digit number using 2, 3, 4, 5, 6, 7, 8, 9x with no remainder.
		Multiplication and division	<p>Find the effect of multiplying a number with up to 2 decimal places by 10 and 100, identifying the value of the digits in the answer as ones, tenths and hundredths.</p> <ul style="list-style-type: none"> ➤ Multiply any number with up to 2 decimal places by 10 and express the answer using tenths. ➤ Multiply any number with up to 2 decimal places by 100 and express the answer using tenths and hundredths.
		Consolidate and Assess	<p>Start this week by revising the learning covered in the Autumn and Spring terms so as to ensure pupils are fluent and secure with their basic skills.</p>

Year 4 Math Medium Term Planning Summer 1

Date	Week	Topic	Math Objectives
		Place Value	<p>Find 1000 more or less than a given number.</p> <ul style="list-style-type: none"> ➤ Find 100 more than any 3 digit number ➤ Find 100 less than any 3 digit number ➤ Find 100 more than any 4 digit number ➤ Find 100 less than any 4 digit number ➤ Find 1000 more than any 4 digit number ➤ Find 1000 less than any 4 digit number ➤ Find 1000 more than any 2 digit number ➤ Find 1000 more than any 3 digit number
		Fractions	<p>Find the effect of dividing a 1-digit or 2-digit number by 10 and 100, identifying the value of the digits in the answer as ones, tenths and hundredths.</p> <ul style="list-style-type: none"> ➤ Divide any 2 digit number by 10 and express the answer using tenths. ➤ Divide any 2 digit number by 100 and express the answer using tenths and hundredths.
		Fractions	<p>Count up and down in hundredths; recognise that hundredths arise from dividing an object into 100 equal parts and in dividing numbers or quantities by 100.</p> <ul style="list-style-type: none"> ➤ Count up in hundredths starting at zero ➤ Count back in hundredths to zero ➤ Count up in hundredths starting at any 'hundredth number' ➤ Count back in hundredths starting at any 'hundredth number' ➤ Know that hundredths arise from dividing an object, quantity or number into 100 equal parts ➤ Place fractions (hundredths) in order – ascending and descending.
		Measures – length/mass capacity/time	<p>Convert between different units of measure (e.g. km to m; hr to min)</p> <ul style="list-style-type: none"> ➤ Revise relationships between measures: 1000m = 1km; 100cm = 1m; 10mm = 1cm ➤ Revise relationships between measures: 1000g = 1kg ➤ Revise relationships between measures: 60 min = 1 hour; 60 secs = 1 min; 12 months = 1 year ➤ Solve problems involving conversion between units of measure ➤ Express a distance of more than 1km in m ➤ Express a distance of more than 1cm in mm ➤ Express a mass of more than 1kg in g ➤ Express a volume of more than 1l in ml ➤ Express the passing of time of more than 1 hour in minutes ➤ Express the passing of time of more than 1 minute in seconds.
		Geometry – position and direction	<p>-Describe positions on a 2D grid as coordinates in the first quadrant - Describe movements between positions as translations of a given unit to the left/right and up/down - Plot specified points and draw sides to complete given polygon</p> <ul style="list-style-type: none"> ➤ Read coordinates using both axes ➤ Plot points using both axes ➤ Answer questions involving coordinates ➤ Create shapes by plotting points in first quadrant ➤ Explain a change in a given position by the movement made along the axes of the quadrant

			<ul style="list-style-type: none">➤ Use numbered axes to plot points to form a polygon➤ Describe the properties of the polygon
		Fractions	<p>-Recognise and write decimals equivalents of any number of tenths or hundredths - Recognise and write decimal equivalents to $\frac{1}{4}$, $\frac{1}{2}$ and $\frac{3}{4}$.</p> <ul style="list-style-type: none">➤ Know that $\frac{1}{10} = 0.1$ [for each tenth value]➤ Know that $\frac{1}{100} = 0.01$ [for each hundredth value]➤ Know that $0.25 = \frac{1}{4}$➤ Know that $0.5 = \frac{1}{2}$➤ Know that $0.75 = \frac{3}{4}$

Year 4 Math Medium Term Planning Summer 2

Date	Week	Topic	Math Objectives
		Place Value	<p>Count in multiples of 6, 7, 9, 25 and 1000.</p> <ul style="list-style-type: none"> ➤ Count on and back in 1000s from 0 to 10,000 ➤ Count on and back in 10s from any given multiple between 0 and 10,000 ➤ Count on and back in 100s from 0 to 10,000 ➤ Count on and back in 50s from 0 to 1000 starting at any given multiple ➤ Count on and back in 25s from 0 to 1000 starting at any given multiple ➤ Count on and back in 9s from 0 to 1000 starting at any given multiple ➤ Count on in 8s from 0 to 1000 starting at any given multiple ➤ Count on in 7s from 0 to 1000 starting at any given multiple ➤ Count on in 6s from 0 to 1000 starting at any given multiple.
		Statistics	<p>Solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs.</p> <ul style="list-style-type: none"> ➤ Compare information in bar charts to answer questions ➤ Solve addition problems using information in bar charts to answer questions ➤ Solve difference problems using information in bar charts to answer questions ➤ Compare information in pictograms to answer questions ➤ Solve addition problems using information in pictograms to answer questions ➤ Solve difference problems using information in pictograms to answer questions ➤ Compare information in tables to answer questions ➤ Solve addition problems using information in tables to answer questions ➤ Solve difference problems using information in tables to answer questions
		Addition and subtraction	<p>Solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why.</p> <ul style="list-style-type: none"> ➤ Solve two-step problems using addition to 1000. ➤ Solve two-step problems with subtraction to 1000. ➤ Solve two-step problems using addition and subtraction to 1000.
		Fractions - decimals	<p>Round decimals with one decimal place to the nearest whole number. Compare numbers with the same number of decimal places up to two decimal places.</p> <ul style="list-style-type: none"> ➤ Round a number with one decimal place to nearest whole number. ➤ Given 3 numbers with one decimal place, place in order (smallest to largest and vice versa). ➤ Given 5 numbers with one decimal place, place in order (smallest to largest and vice versa). ➤ Given 3 numbers with two decimal places, place in order (smallest to largest and vice versa). ➤ Given 5 numbers with two decimal places, place in order (smallest to largest and vice versa).
		Geometry	<p>Identify acute and obtuse angles and compare and order angles up to two right angles by size.</p> <ul style="list-style-type: none"> ➤ Know that an angle smaller than a right angle is known as an acute angle ➤ Know that an angle larger than a right angle is known as an obtuse angle ➤ Identify and describe an acute angle ➤ Identify and describe an obtuse angle ➤ Compare and order angles by size
		Consolidate and Assess	<p>Start this week by revising the learning covered in the Autumn and Spring terms so as to ensure pupils are fluent and secure with their basic skills and ready to begin Year 5 and transition to middle school. Consolidate any learning from summer term. Refocus mental starters as needed.</p>