



St Peter's Maths Curriculum Overview – Year 4

(Some blocks may continue into start of the next term if all small steps have not been covered.)
 (Non-number blocks may also be taught out of sequence by teachers covering part-time class teachers.)

Autumn	Number Place value (4 weeks)		Number Addition and subtraction (3 weeks)		(1 week) Measurement Area	Number Multiplication and division A (3 weeks)		Consolidation
Spring	Number Multiplication and division B (3 weeks)		Measurement Length and perimeter (2 weeks)	Number Fractions (4 weeks)		Number Decimals A (3 weeks)		
Summer	Number Decimals B (2 weeks)	Measurement Money (2 weeks)	Measurement Time (2 weeks)	Consolidation	Geometry Shape (2 weeks)		(1 week) Statistics	Geometry Position and direction (2 weeks)

Year 4 Maths Small Steps Curriculum Overview – Autumn Term

Number: Place Value (Numbers up to 10,000)	Number: Addition and Subtraction	Number: Multiplication and Division
◆ Read represent and write numbers to 1,000 focussing on numbers with no tens or ones to reinforce the concept of zero as a place holder. (Year 3 recap) ◆ Partition numbers to 1,000 into hundreds, tens and ones. (Year 3 recap) ◆ Label, identify and find missing numbers on blank or partially completed number lines to 1,000. (Year 3 recap) ◆ Count forwards and backwards in 1,000s from any given multiple of 1,000. ◆ Read, represent and write numbers to 10,000 in digits and words. ◆ Partition numbers to 10,000 into thousands, hundreds, tens and ones. ◆ Flexibly partition numbers to 10,000 into thousands, hundreds, tens and ones. E.g. $6,000 + 400 + 20 + 9 = 5,000 + 1,400 + 20 + 9$ ◆ Find 1, 10, 100 and 1,000 more or less than any number with up to 4 digits. ◆ Label, identify and find missing numbers on blank or partially completed number line to 10,000. ◆ Estimate numbers to 10,000 on a number line. ◆ Compare numbers to 10,000 using comparative language and symbols. ◆ Order numbers to 10,000 and understand vocabulary ascending and descending. ◆ Build on knowledge of Roman numerals from I-12 on a clock face and know that L represents 50 and C represents 100. ◆ Round 2 and 3 digit numbers to the nearest 10. ◆ Round 2, 3 and 4-digit numbers to the nearest 100. ◆ Round 2, 3 and 4-digit numbers to the nearest 1,000. ◆ Consolidate rounding 2, 3, and 4 digit numbers to the nearest 10, 100 and 1,000.	◆ Mentally add and subtract 1s, 10s, 100s and 1,000s to/from any 4-digit number. ◆ Add 3 or 4-digit numbers with no exchanges, using formal written method. ◆ Add two 4-digit numbers with one exchange in any column. ◆ Add two 4-digit numbers with more than one exchange. ◆ Subtract up to two 4-digit numbers with no exchange, using formal written method. ◆ Subtract up to two 4-digit numbers with one exchange in any column. ◆ Subtract up to two 4-digit numbers with more than one exchange. ◆ Explore choosing most efficient method for subtraction. Is a mental, written or a jotting most appropriate for the calculation? ◆ Estimate answers to calculate roughly what the answer should be and use estimates to check answers and spot obvious mistakes. ◆ Use inverse operations to check the accuracy of calculations.	◆ Explore the link between counting in 3s and the 3 times table to understand multiples of 3 in a range of contexts. ◆ Multiply and divide by 6. ◆ Gain fluency in 6 times-table and division facts and relate 6 times table to the 3 times table. ◆ Multiply and divide by 9. Find unknown number facts from known facts. E.g. subtracting from 10 times-table or tripling the 3-times table. ◆ Gain fluency in the 9 times-table and division facts and understand that each multiples of 9 is triple the equivalent multiple of 3. ◆ Make links between the 3, 6 and 9 times-tables. ◆ Multiply and divide by 7. Make link between repeated addition and multiplication and explore dividing by 7 through sharing into 7 equal groups and grouping into 7s. ◆ Gain fluency in 7 times table and division facts. Find unknown facts by using known facts from 6 and 8 times-tables. ◆ Explore 11 times-table and division facts. Use knowledge of the 1 and 10 times-tables to find unknown facts. ◆ Gain fluency in 12 times-table and division facts. Use knowledge of 2 and 10 times-table facts to find unknown facts. ◆ Multiply numbers by 1 and 0. ◆ Divide numbers by 1 and itself. ◆ Multiply three numbers.
	Measurement: Area	
	◆ Understand the definition of area (area is the amount of space taken up by a two-dimensional shape or surface.) and use sticky notes to practically measure area. ◆ Count the number of squares inside a shape to find its area. ◆ Explore and make rectilinear shapes using squares. ◆ Compare the area of rectilinear shapes.	

Year 4 Maths Small Steps Curriculum Overview – Spring Term

Number: Multiplication and Division	Measurement: Length and Perimeter	Number: Fractions
◆ Introduce and define 'factors'. (Factors are numbers that can be multiplied together to make a 'product'.) ◆ Use factor pairs to generate equivalent calculations. E.g. 3 and 4 are factor pairs of 12, so $5 \times 12 = 5 \times 3 \times 4$. ◆ Multiply numbers by 10. Understand that 'tens times the size' is the same as multiplying by 10. ◆ Multiply numbers by 100. Understand that 'one hundred times the size' is the same as multiplying by 100 or multiplying by 10, then multiplying by 10 again. ◆ Divide numbers by 10. Understand that 'one-tenth the size' is the same as dividing by 10. ◆ Divide numbers by 100. Understand that 'one-hundredth the size' is the same as dividing by 100. ◆ Explore scaling factors by 10 and 100 to find related facts. E.g. $4 \times 7 = 28$ relates to $4 \times 70 = 280$ and $4 \times 700 = 2,800$ and $12 \div 3 = 4$ relates to $120 \div 3 = 40$ and $1,200 \div 3 = 400$. ◆ Use informal written methods for multiplication. ◆ Multiply a 2-digit number by a 1-digit number (Use expanded ladder method, then move to formal written method for short multiplication.) ◆ Multiply a 3-digit number by a 1-digit number. (Use formal method for short multiplication.) ◆ Divide a 2-digit number by a 1-digit number with no remainders. (Use place value charts and informal jottings for $T0 \div 0$ and $HT0 \div 0$ in Year 4 – Formal written method is not introduced until Year 5.) ◆ Divide a 2-digit number by a 1-digit number with remainders. ◆ Divide a 3-digit number by a 1-digit number. ◆ Work systematically to complete correspondence problems. ◆ Choose most efficient or appropriate method in a range of contexts.	◆ Introduce kilometre and abbreviation km and measure in kilometres and metres. ◆ Understand that 1km is equal to 1,000m and use this to convert between kilometres and metres and vice versa. ◆ Calculate the perimeter of rectilinear shapes on a squared grid. ◆ Calculate the perimeter of a rectangle by adding the lengths of the sides. ◆ Calculate the perimeter of rectilinear shapes by adding the lengths of the sides. ◆ Find missing lengths of rectilinear shapes. ◆ Calculate the perimeter of rectilinear shapes with missing lengths. ◆ Calculate the perimeter of regular polygons. ◆ Calculate the perimeter of irregular polygons.	◆ Recap how fractions are represented and discuss that the whole is split into equal parts. ◆ Count in fractions beyond 1 whole. ◆ Partition mixed numbers in different ways. ◆ Label mixed fractions on a number line. ◆ Compare and order mixed numbers. (Understand that when the denominators are the same the greater the numerator the greater the fraction.) ◆ Introduce improper fractions and relate to mixed numbers and wholes. ◆ Convert mixed numbers to improper fractions. ◆ Convert improper fractions to mixed numbers. ◆ Find equivalent fractions on a number line. ◆ Find equivalent fraction families. ◆ Add two or more fractions with the same denominator. ◆ Add fractions and mixed numbers. ◆ Subtract two fractions with the same denominator. ◆ Subtract fractions from whole numbers. ◆ Subtract fractions from mixed numbers.
	Number: Decimals A	
	◆ Understand tenths as fractions. (A tenth is one part of a whole split into 10 equal parts.) ◆ Introduce tenths as decimals and relate them to fractions ($1/10 = 0.1$). ◆ Read and represent tenths on a place value chart: include decimal greater than 1. ◆ Explore tenths on a number line. ◆ Divide a 1-digit number by 10 to get a decimal number with 1 decimal place. (Understand that the digit is moving one place to the right on a place value grid.) ◆ Divide a 2-digit number by 10. (Understand that both digits are moving two places to the right on a place value grid.) ◆ Introduce hundredths. Understand that a hundredth is 1 whole split into 100 equal parts. Write hundredths as fractions. ($1/100$) ◆ Write hundredths as decimals and understand that ten lots of 0.01 are equal to 0.1. ◆ Read and represent hundredths as decimals on a place value chart. ◆ Divide a 1 or 2-digit number by 100.	

Year 4 Maths Small Steps Curriculum Overview – Summer Term

Number: Decimals B	Measurement: Money	Geometry: Shape
- Explore different ways of making 1 whole by combining tenths. Recognise that, for example, $2/10$ is equal to 0.2 and $2/10 + 8/10$ can also be written as $2/10 + 0.8$. Partition the whole into 3 numbers. E.g. $1 = 0.3 + 0.4 + 0.3$. - Explore different ways of making 1 whole from hundredths. Apply number bond knowledge to 100 to support this learning. Understand that a whole can also be made by adding a fraction and a decimal. E.g. $34/100 + 0.66 = 1$ - Partition numbers with up to 2 decimal places into place value parts. Focus on partitioning into the ones, the tenths and hundredths. Understand the role of zero as a placeholder. E.g. 3.09 has zero tenths. - Flexibly partition numbers with decimals up to 2 decimal places. E.g. $2 + 1.5 + 0.02 = 3.52$ or $3.02 + 0.5 = 3.52$. - Compare decimal numbers with up to 2 decimal places systematically. E.g. When comparing 6.73 and 2.98, only the ones need to be compared; but when comparing 5.37 and 5.39, all the places need to be compared. - Order decimal numbers with up to 2 decimal places. (Only numbers that have the same number of decimal places need to be compared in Year 4.) Recap vocabulary ascending and descending. - Round decimals with 1 decimal place to the nearest whole number (integer). Use the same convention as in their earlier rounding: a number with a 5 in the tenths column, rounds to the greater integer. Understand that decimal numbers can round to zero. - Apply knowledge of decimal equivalents of hundredths and tenths to recognise and write $1/4$, $1/2$ and $3/4$ as decimals.	- Introduce decimal notation. Read and write money in pounds and pence. Understand that the digits following the decimal point represent part of a pound. - Use the fact $£1 = 100p$ to convert from pounds and pence (in decimal notation) to pence and vice versa. E.g. $£5.81 = 581p$ - Order amounts of money. Initially compare amounts represented in same format, then in mixed pounds and pence. - Estimate by rounding to the nearest 10p. - Calculate with money using the 4 operations. Use estimating to check answers.	- Understand an angle as turns. Explore full, half and quarter turns, using the language of clockwise and anticlockwise. - Revise right angles and introduce acute and obtuse angles. - Identify different types of angles and use this information to compare and order a set of angles. - Classify triangles according to their different properties: all three sides have different lengths: scalene; if two of the sides are the same length: isosceles; if all three sides are equal: equilateral. - Identify and distinguish between the following quadrilaterals: a trapezium, a rhombus, a parallelogram, a square and a rectangle. - Revisit 2D polygons (shapes with straight sides) and introduce terms 'regular' (all sides the same length and angles are the same size) and 'irregular' polygons. - Identify lines of symmetry in 2D shapes. Understand that the number of lines of symmetry in a regular polygon is the same as the number of sides. - Use lines of symmetry to complete a symmetric figure.
	Measurement: Time	Statistics
	- Recap relationships between a year, a month, a week and a day. Convert and compare the different units of time. Recognise how often a leap year occurs and calculate future leap years. Understand that there are approximately 4 weeks in a month. - Recap the numbers of minutes in an hour and seconds in a minute. Use this knowledge, along with multiplication and division facts, to convert between different units of time. E.g. $240 \text{ seconds} \div 60 = 4 \text{ minutes}$ - Convert between analogue and 12-hour digital times (using am and pm) and calculate durations of time. - Convert analogue and 12 hour digital clock times to 24-hour digital clock. Convert pm times between 1 pm and 11:59 pm into 24-hour clock times, by adding 12 hours to the time. Know that 24-hour clock times are always have four digits. (If the hour only has one digit, then a zero is placed at the start. E.g. 09:45.) - Convert 24-hour digital clock times to 12-hour digital clock and represent the time on an analogue clock.	- Interpret and draw pictograms and bar charts to represent discrete data. - Solve comparison, sum and difference problems using discrete data from pictograms and bar charts. - Interpret line graphs. - Draw line graphs with appropriate scales and label axes accurately. - Introduce coordinate grids and begin to describe the positions of points on a grid. - Plot points with given coordinates on a grid. - Draw 2-D shapes on a coordinate grid. - Translate points and shapes on a coordinate grid. Understand that 'translate' means 'move'. - Describe the translation that has taken place with given a pair of points or shapes.