



Spring Vale Primary School – Mathematics Medium Term Plan

Year 3 – Autumn Term

Unit:	National Curriculum:	Small Steps:
Number: Place Value	Pupils should be taught to: • count from 0 in multiples of 4, 8, 50 and 100; find 10 or 100 more or less than a given number • recognise the place value of each digit in a three-digit number (hundreds, tens, ones) • compare and order numbers up to 1000 • identify, represent and estimate numbers using different representations • read and write numbers up to 1000 in numerals and in words • solve number problems and practical problems involving these ideas.	• Represent numbers to 100 • Partition numbers to 100 • Number line to 100 • Hundreds • Represent numbers to 1,000 • Partition numbers to 1000 • Flexible partitioning of numbers to 1000 • Hundreds, tens and ones • Find 1, 10 or 100 more or less • Number line to 1000 • Estimate on a number line to 1000 • Compare numbers to 1000 • Order numbers to 1000 • Count in 50s
Number: Addition and Subtraction	Pupils should be taught to: • add and subtract numbers mentally, including: ○ a three-digit number and ones ○ a three-digit number and tens ○ a three-digit number and hundreds • add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction • estimate the answer to a calculation and use inverse operations to check answers	• Apply number bonds within 10 • Add and subtract 1s • Add and subtract 10s • Add and subtract 100s • Spot the pattern • Add 1s across a 10 • Add 10s across a 100 • Subtract 1s across a 10

	• solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction.	• Subtract 10s across a 100 • Make connections • Add two numbers (no exchange) • Subtract two numbers (no exchange) • Add two numbers (across a 10) • Add two numbers (across a 100) • Subtract two numbers (across a 10) • Subtract two numbers (across a 100) • Add 2-digit and 3-digit numbers • Subtract a 2-digit number from a 3-digit number • Complements to 100 • Estimate answers • Inverse operations • Make decisions
Number: Multiplication and Division	Pupils should be taught to: • recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables • write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods • solve problems, including missing number problems, involving multiplication and division, including integer scaling problems and correspondence problems in which n objects are connected to m objects.	• Multiplication – equal groups • Use arrays • Multiples of 2 • Multiples of 5 and 10 • Sharing and grouping • Multiply by 3 • Divide by 3 • The 3 times-table • Multiply by 4 • Divide by 4 • The 4 times-table • Multiply by 8 • Divide by 8 • The 8 times-table • The 2, 4 and 8 times-tables



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Year 3 – Spring Term

Unit:	National Curriculum:	Small Steps:
Number: Multiplication and Division	Pupils should be taught to: - recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables - write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods - solve problems, including missing number problems, involving multiplication and division, including integer scaling problems and correspondence problems in which n objects are connected to m objects.	- Multiples of 10 - Related calculations - Reasoning about multiplication - Multiply a 2-digit number by a 1-digit number – no exchange - Multiply a 2-digit number by a 1-digit number – with exchange - Link multiplication and division - Divide a 2-digit number by a 1-digit number – no exchange - Divide a 2-digit number by a 1-digit number – flexible partitioning - Divide a 2-digit number by a 1-digit number – with remainders - Scaling - How many ways?
Measurement: Length and Perimeter	Pupils should be taught to: - measure, compare, add and subtract: lengths (m/cm/mm) - measure the perimeter of simple 2-D shapes	- Measure in metres and centimetres - Measure in millimetres - Measure in centimetres and millimetres - Metres, centimetres and millimetres - Equivalent lengths (metres and centimetres) - Equivalent lengths (centimetres and millimetres) - Compare lengths - Add lengths - Subtract lengths - What is perimeter? - Measure perimeter

		• Calculate perimeter
Number: Fractions	Pupils should be taught to: • count up and down in tenths; recognise that tenths arise from dividing an object into 10 equal parts and in dividing one-digit numbers or quantities by 10 • recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators • recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators • recognise and show, using diagrams, equivalent fractions with small denominators • add and subtract fractions with the same denominator within one whole (e.g. $\frac{5}{7} + \frac{1}{7} = \frac{6}{7}$) • compare and order unit fractions, and fractions with the same denominators • solve problems that involve all of the above.	• Understand the denominators of unit fractions • Compare and order unit fractions • Understand the numerators of non-unit fractions • Understand the whole • Compare and order non-unit fractions • Fractions and scales • Fractions on a number line • Count in fractions on a number line • Equivalent fractions on a number line • Equivalent fractions as bar models
Measurement: Mass and Capacity	Pupils should be taught to: • measure, compare, add and subtract: mass (kg/g); volume/capacity (l/ml)	• Use scales • Measure mass in grams • Measure mass in kilograms and grams • Equivalent masses (kilograms and grams) • Compare mass • Add and subtract mass • Measure capacity and volume in millilitres • Measure capacity and volume in litres and millilitres • Equivalent capacities and volumes (litres and millilitres) • Compare capacity and volume • Add and subtract capacity and volume



Spring Vale Primary School – Mathematics Medium Term Plan

Year 3 – Summer Term

Unit:	National Curriculum:	Small Steps:
Number: Fractions	Pupils should be taught to: • count up and down in tenths; recognise that tenths arise from dividing an object into 10 equal parts and in dividing one-digit numbers or quantities by 10 • recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators • recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators • recognise and show, using diagrams, equivalent fractions with small denominators • add and subtract fractions with the same denominator within one whole (e.g. $5/7 + 1/7 = 6/7$) • compare and order unit fractions, and fractions with the same denominators • solve problems that involve all of the above.	• Add fractions • Subtract fractions • Partition the whole • Unit fractions of a set of objects • Non-unit fractions of a set of objects • Reasoning with fractions of an amount
Measurement: Money	Pupils should be taught to: • add and subtract amounts of money to give change, using both £ and p in practical contexts	• Pounds and pence • Convert pounds and pence • Add money • Subtract money • Find change

Measurement: Time	Pupils should be taught to: - tell and write the time from an analogue clock, including using Roman numerals from I to XII, and 12-hour and 24-hour clocks - estimate and read time with increasing accuracy to the nearest minute; record and compare time in terms of seconds, minutes, hours and o'clock; use vocabulary such as a.m./p.m., morning, afternoon, noon and midnight - know the number of seconds in a minute and the number of days in each month, year and leap year - compare durations of events, for example to calculate the time taken by particular events or tasks.	- Roman numerals to 12 - Tell the time to 5 minutes - Tell the time to the minute - Read time on a digital clock - Use a.m. and p.m. - Years, months and days - Days and hours - Hours and minutes – use start and end times - Hours and minutes – use durations - Minutes and seconds - Units of time - Solve problems with time
Geometry: Properties of Shape	Pupils should be taught to: - draw 2-D shapes and make 3-D shapes using modelling materials; recognise 3-D shapes in different orientations and describe them - recognise that angles are a property of shape or a description of a turn - identify right angles, recognise that two right angles make a half-turn, three make three quarters of a turn and four a complete turn; identify whether angles are greater than or less than a right angle - identify horizontal and vertical lines and pairs of perpendicular and parallel lines.	- Turks and angles - Right angles - Compare angles - Measure and draw accurately - Horizontal and vertical - Parallel and perpendicular - Recognise and describe 2-D shapes - Draw polygons - Recognise and describe 3-D shapes - Make 3-D shapes
Statistics	Pupils should be taught to: - interpret and present data using bar charts, pictograms and tables - solve one-step and two-step questions such as 'How many more?' and 'How many fewer?' using information presented in scaled bar charts and pictograms and tables.	- Interpret pictograms - Draw pictograms - Interpret bar charts - Draw bar charts - Collect and represent data - Two-way tables