St James' Church of England Primary School
Key Learning in Maths – Year 3

Haslingden St. James' C. E. Primary School
Curriculum Map 2023-2024 with Key Objectives
Year 3

Autumn Term

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6
Autumn 1	**PLACE VALUE** • identify, represent and estimate numbers using different representations. • 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 • Read and write numbers up to 1000 in numerals and in words. • Solve number problems and practical problems involving these ideas. • Count from 0 in multiples of 4, 8, 50 and 100			**ADDITION & SUBTRACTION** • 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.		
Autumn 2	**ADDITION & SUBTRACTION** • Estimate the answer to a calculation and use inverse operations to check answers. • Solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction.	**MULTIPLICATION AND DIVISION** • Count from 0 in multiples of 4, 8, 50 and 100 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 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 positive integer scaling problems and correspondence problems in which n objects are connected to m objectives				

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Year 3

Spring Term

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6
Spring 1	**MULTIPLICATION AND DIVISION** • Identify multiples of 10 • Identify related multiplication and division calculations • Multiply a 2 digit number by a 1 digit number (including when exchanging is needed) • Divide a 2 digit number by a one digit number (including when there are remainders) • Solve problems involving scaling. • Identify the most efficient way to solve multiplication and division problems.			**LENGTH AND PERIMETER** • Measure items using millimetres, centimetres and metres • Find equivalences between metres, centimetres and millimetres. • Compare, add and subtract different lengths • Measure and calculate perimeter of rectangles.		
Spring 2	**FRACTIONS** • Understand that the denominator tells us how many equal parts a whole is split into. • Compare and order unit and non-unit fractions. • Place and count fractions on a number line • Find equivalent fractions on a number line and on bar models.			**MASS AND CAPACITY** • Use scales to measure mass in grams and kilograms. • Find equivalent masses (grams and kilograms) • Compare, add and subtract different masses. • Measure capacity and volume in millilitres and litres.		

Summer Term

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6
Summer 1	**FRACTIONS** • Add and subtract fractions • Partition a whole amount • Find unit and non-unit fractions of a set of objects • Find fractions of amounts		**MONEY** • Convert between pounds and pence • Add and subtract money • Find change		**TIME** • Recognise Roman Numerals up to 20 • Read time on a digital and analogue clock to the nearest minute • Use am and pm correctly • Solve problems involving hours, days, months and years •	
Summer 2	**TIME (cont)** • Find start times, end times and durations of events. • Convert between different units of time	**SHAPE** • Recognise angles as turn • Identify and draw right angles • Compare angles • Measure and draw angles • Recognise horizontal, vertical, parallel and perpendicular lines • Recognise, describe and draw 2D shapes • Recognise and describe 3D shapes		**STATISTICS** • Interpret and draw pictograms • Interpret and draw bar charts • Collect and represent data in a variety of effective ways • Interpret information from two-way tables.		**ASSESSMENT AND CONSOLIDATION**

Number – number and place value	Number – addition and subtraction	Number – multiplication and division

- Count from 0 in multiples of 4, 8, 50 and 100.
- Count up and down in tenths.
- Read and write numbers up to 1000 in numerals and in words.
- *Read and write numbers with one decimal place.*
- Identify, represent and estimate numbers using different representations *(including the number line).*
- Recognise the place value of each digit in a three-digit number (hundreds, tens, ones).
- *Identify the value of each digit to one decimal place.*
- *Partition numbers in different ways (e.g. 146 = 100+ 40+6 and 146 = 130+16).*
- Compare and order numbers up to 1000.
- *Compare and order numbers with one decimal place.*
- Find *1,* 10 or 100 more or less than a given number.
- *Round numbers to at least 1000 to the nearest 10 or 100.*
- *Find the effect of multiplying a one- or two-digit number by 10 and 100, identify the value of the digits in the answer.*
- *Describe and extend number sequences involving counting on or back in different steps.*
- *Read Roman numerals from I to XII.*
- Solve number problems and practical problems involving these ideas.

- *Choose an appropriate strategy to solve a calculation based upon the numbers involved (recall a known fact, calculate mentally, use a jotting, written method).*
- *Select a mental strategy appropriate for the numbers involved in the calculation.*
- *Understand and use take away and difference for subtraction, deciding on the most efficient method for the numbers involved, irrespective of context.*
- *Recall/use addition/subtraction facts for 100 (multiples of 5 and 10).*
- *Derive and use addition and subtraction facts for 100.*
- *Derive and use addition and subtraction facts for multiples of 100 totalling 1000.*
- 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.
- Solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction.

- *Choose an appropriate strategy to solve a calculation based upon the numbers involved (recall a known fact, calculate mentally, use a jotting, written method).*
- *Understand that division is the inverse of multiplication and vice versa.*
- *Understand how multiplication and division statements can be represented using arrays.*
- *Understand division as sharing and grouping and use each appropriately.*
- Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables.
- *Derive and use doubles of all numbers to 100 and corresponding halves.*
- *Derive and use doubles of all multiples of 50 to 500.*
- 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.
- *Use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy.*
- Solve problems, including missing number problems, involving multiplication and division *(and interpreting remainders),* including positive integer scaling problems and correspondence problems in which n objects are connected to m objects.

Number – fractions	Geometry – properties of shapes	Geometry – position and direction
- *Show practically or pictorially that a fraction is one whole number divided by another (e.g. $\frac{3}{4}$ can be interpreted as 3 ÷ 4).* - *Understand that finding a fraction of an amount relates to division.* - Recognise that tenths arise from dividing objects 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.	- Draw 2-D shapes and make 3-D shapes using modelling materials; recognise 3-D shapes in different orientations and describe them. - Recognise angles as 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.	*Describe positions on a square grid labelled with letters and numbers.*

- 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 [for example, $\frac{5}{7} + \frac{1}{7} = \frac{6}{7}$].
- Compare and order unit fractions, and fractions with the same denominators *(including on a number line).*
- *Count on and back in steps of $\frac{1}{2}$, $\frac{1}{4}$ and $\frac{1}{3}$.*

Solve problems that involve all of the above.

Measurement	Statistics
- Measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml). *Continue to estimate and measure temperature to the nearest degree (°C) using thermometers.* *Understand perimeter is a measure of distance around the boundary of a shape.* - Measure the perimeter of simple 2-D shapes. - 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/read time with increasing accuracy to the nearest minute. - Record/compare time in terms of seconds, minutes, hours; use vocabulary such as o'clock, a.m./p.m., morning, afternoon, noon, 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]. *Continue to recognise and use the symbols for pounds (£) and pence (p) and understand that the decimal point separates pounds/pence.* *Recognise that ten 10p coins equal £1 and that each coin is $\frac{1}{10}$ of £1.* - Add and subtract amounts of money to give change, using both £ and p in practical contexts.	*Use sorting diagrams to compare and sort objects, numbers and common 2-D and 3-D shapes and everyday objects.* - Interpret and present data using bar charts, pictograms and tables. Solve one-step and two-step questions [for example, 'How many more?' and 'How many fewer?'] using information presented in scaled bar charts and pictograms and tables.