John Randall Primary School maths medium term planning Y3

Autumn		*Spring*		*Summer*	
All areas of the maths curriculum will be developed using deepening learning questions based upon solo taxonomy questioning cards.					
Reading, writing and ordering two- and three-digit numbers	To recognise the place value of each digit in a three-digit number (hundreds, tens, and ones). ● To compare and order numbers up to 1000. ● To read and write numbers up to 1000 in numerals and in words.	Number, place value and rounding, number sense	● To count from 0 in multiples of 4, 8, 50 and 100; finding 10 or 100 more or less than a given number. ● To recognise the place value of each digit in a three-digit number (hundreds, tens, ones). ● To compare and order numbers up to 1000. ● To identify, represent and estimate numbers using different representations. ● To read and write numbers up to 1000 in numerals and in words. ● To solve number problems and practical problems involving these ideas.	Read, write and order and round two- and three- digit numbers	● To count from 0 in multiples of 4, 8, 50 and 100; finding 10 or 100 more or less than a given number. ● To recognise the place value of each digit in a three-digit number (hundreds, tens, ones). ● To compare and order numbers up to 1000. ● To identify, represent and estimate numbers using different representations. ● To read and write numbers up to 1000 in numerals and in words. ● To solve number problems and practical problems involving these ideas.

| Counting and estimating | ● To count from 0 in multiples of 4, 8, 50 and 100; finding 10 or 100 more or less than a given number.
● To identify, represent and estimate numbers using different representations. | Use partitioning to add and subtract two-digit numbers | 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.
● To estimate the answer to a calculation and use inverse operations to check answers.
● To solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction. | Multiplication and division problems | ● To 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 |
| Number facts to 20 and to 100
Addition and Subtraction of 1 and 2-digit numbers | ● 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.
● To solve problems, including missing number problems, | Multiplication and division: multiplying one- digit numbers by multiples of 10 | To recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables.
Explain the effect of multiplying by 10 and multiples of 10
● To write and calculate mathematical statements for multiplication and | Addition and subtraction of three-digit numbers and 1s, 10s and 100s | ● 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.
● To estimate the answer to a calculation and use inverse |

	using number facts, place value, and more complex addition and subtraction.		division using the multiplication tables that they know, including for two-digit numbers times one-digit numbers, using mental methods. ● To 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		operations to check answers. ● To solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction.
Multiplication and division facts	To recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables. ● To write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit numbers times one-	Measurement: adding and subtracting money	To add and subtract amounts of money to give change, using both £ and p in practical contexts.	Measurement: using millilitres and litres	To measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml).

	digit numbers, using mental methods. ● To 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.				
Measurement: using mm, cm and metres	● To measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml). ● To measure the perimeter of simple 2D shapes.	Geometry: Recognising and drawing right angles in 2D shapes	To recognise angles as a property of shape and associate angles with turning. ● To 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.	Geometry: identifying horizontal, vertical, and curved lines	● To draw 2D shapes and make 3D shapes using modelling materials; recognise 3D shapes in different orientations and describe them with increasing accuracy. ● To recognise angles as a property of shape and associate angles with turning. ● To 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. ● To identify horizontal, vertical, perpendicular and parallel lines in relation to other lines.
Geometry: recognising, describing and making 2D and 3D shapes	To draw 2D shapes and make 3D shapes using modelling materials; recognise 3D shapes in different orientations and describe them with increasing accuracy. ● To identify horizontal, vertical, perpendicular and parallel lines in relation to other lines.	Addition and subtraction of two-digit numbers using columns	To add and subtract numbers with up to three digits, using the efficient written methods of columnar addition and subtraction. ● To estimate the answer to a calculation and use inverse operations to check answers. ● To solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction.	Addition and subtraction of two-digit numbers using columns	To add and subtract numbers with up to three digits, using the efficient written methods of columnar addition and subtraction. ● To estimate the answer to a calculation and use inverse operations to check answers. ● To solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction.
Addition and subtraction of two- and three-digit numbers, using a number line and columns	To add and subtract numbers with up to three digits, using the efficient written methods of columnar addition and subtraction.	Multiplication and division: multiplying by multiples of 10, and dividing with remainders	To recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables. ● To write and calculate mathematical	Multiplication and division: multiplying by multiples of 10, and dividing with remainders	To recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables. ● To write and calculate mathematical

	● To estimate the answer to a calculation and use inverse operations to check answers. ● To solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction.		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. ● To 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. Knowing when to round the quotient up or round down with remainders.		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. ● To 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. Knowing when to round the quotient up or round down with remainders.
Multiplication and division: doubling, halving and TU × U	To recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables.	Multiplication and division: multiplying and dividing larger numbers	Pupils develop reliable written methods for multiplication and division, starting with	Multiplication and division: Short multiplication and division	Pupils develop reliable written methods for multiplication and division, starting with

	● To 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. ● To 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.		calculations of two-digit numbers by one-digit numbers and progressing to the formal written methods of short multiplication and division.		calculations of two-digit numbers by one-digit numbers and progressing to the formal written methods of short multiplication and division.
Fractions: representing, comparing and ordering unit fractions of shapes and numbers	To recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators. ● To recognise and use fractions as numbers:	Fractions: representing, comparing and ordering unit and non-unit fractions of shapes and numbers	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.	Measurement: read and write time using 12 and 24 hour	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. ● To estimate and read time with increasing accuracy to the nearest

	unit fractions and non-unit fractions with small denominators. ● To compare and order unit fractions, and fractions with the same denominators. ● To solve problems that involve all of the above.		● To recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators. ● To recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators. ● To recognise and show, using diagrams, equivalent fractions with small denominators. ● To compare and order unit fractions, and fractions with the same denominators. ● To solve problems that involve all of the above.		minute; record and compare time in terms of seconds, minutes, hours and o'clock; use vocabulary such as am/pm, morning, afternoon, noon and midnight. ● To know the number of seconds in a minute and the number of days in each month, year and leap year. ● To compare durations of events, for example to calculate the time taken by particular events or tasks.
Measurement: time	● 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. ● To estimate and read time with increasing accuracy to the nearest	Measuring using grams and kilograms	To measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml).	Fractions: equivalence, addition and subtraction within 1, finding tenths	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.

	minute; record and compare time in terms of seconds, minutes, hours and o'clock; use vocabulary such as am/pm, morning, afternoon, noon and midnight. ● To know the number of seconds in a minute and the number of days in each month, year and leap year. ● To compare durations of events, for example to calculate the time taken by particular events or tasks.				● To recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators. ● To recognise and show, using diagrams, equivalent fractions with small denominators. ● To add and subtract fractions with the same denominator within one whole (5/7 + 1/7 = 6/7). ● To solve problems that involve all of the above.
Statistics: read, present and interpret pictograms and tables	To interpret and present data using bar charts, pictograms and tables ● To 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.	Statistics: Read and interpret bar charts, using scales	To interpret and present data using bar charts, pictograms and tables. ● To 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.	Statistics: using information presented in scaled bar charts and pictograms and tables.	To 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.