Maths Planning Sheet

Year: 5

Term: Autumn 1

Unit: Place Value

Small step	Date	Preload (Get Ready)	Anchor Task	Input - Lesson structure: 5 Big Ideas (R&S, MT, V, F, C), finished Q's	Stem sentence/s	Additional fluency and RPS resources
1) Roman Numerals to 1,000	01/09/22	Recap Roman Numerals to 100	Identify Roman Numeral symbols, links as a number system	R&S: knowing letter representations – identifying patterns. MT: Using rules to form numbers using Roman Numerals – order of letters, no more than 3 letters consecutively. F: recall of Roman Numerals, x2 and 3 of 1, 10, 100, 1000, ability to subtract Roman Numerals C: Understand partitioning	The letter represents	Additional fluency: Translating Roman Numerals to numbers and numbers to Roman Numerals WR RPS
2) Numbers to 10,000	02/09/22	Base 10 materials and place value charts to identify / show numbers	Counting in 1's, 10's, 100's and 1,000's to make numbers	R&S: Base 10, place value counters, place value charts, part-whole models, number lines MT: How does place value link to value of digits V: Link between + 10, +100, +1000 F: +/- 1 from single digits, subitising place value counters / base 10 materials C: Understand partitioning and place value (order of columns), the term value	The value of the in is The column before/after the column is the column. 10 can be exchanged for 1 1 can be exchanged for	WR RPS
3) Numbers to 100,000	05/09/22	Writing numerals in words +/- powers of 10	n/a	R&S: Place value charts, bar models, number lines MT: How does the ten thousands column relate to the thousands. What is most efficient way to +/- powers of 10 – how do columns change when adding different numbers V: Different ways of partitioning numbers, changing order of numbers, i.e. not smallest to largest F: +/- 1 from single digits, subitising place value counters / base 10 materials C: Understand partitioning and place value (order of columns), the term value	The value of the in is The column before/after the column is the column.	WR RPS
4) Numbers to 1,000,000	06/09/22	Place value counters on a place value chart, reconstructing partitioned numbers, value of digit	Representation of one million in base 10	R&S: place value charts, numbers in digits, MT: link between the one and thousands columns – how to break up a 6-digit number. Importance of zero as a placeholder. V: F: reading of larger numbers, C: understanding of place value in a 6-digit number	The value of the in is The column before/after the column is the column.	WR RPS
5) Read and write numbers to 1,000,000	07/09/22	Understanding of place value, recognition of how to write 1 million in digits	n/a	R&S: Place value chart, whole-part model, writing in numerals and words MT: how does the comma help us? V: procedural in writing similar numbers F: reading and writing of larger numbers to 1 million C: fluency in place value columns	The number before/after the comma is This part of the number is said/written as The whole of the number is said/written as	Additional fluency: change between words, numerals, place value chart representations WR RPS

6) Powers of 10	09/09/22	Represent numbers on place value chart – procedural variation	Ones into 1 ten, tens into 1 hundred	R&S: base 10, place value chart, Gattengno chart, bar models MT: relationship between place value columns / numbers above and below in Gattegno chart V: procedural in number representation (x&/ 10, x&/ 100, x&/ 1000) F: recognising base 10, knowledge of place value columns C: relationship within place value	There are hundreds in 1,000 and thousands in This means there are hundreds in There are in	WR RPS
7) 10 to 100,000 more or less	12/09/22	Simple number pattern – what changes, how does PV change?	+/- 10, 100, 1,000, 10,000	R&S: number tracks, place value charts, Gattegno charts MT: Efficiency of method – how do place value columns change when +/- a power of 10, what will the number be / what was the number? V: procedural variation with counting tracks – similar numbers F: reading numbers, identifying columns C: understand when/how to bridge through powers of 10	more/less than is is more/less than The numbers are increasing/ decreasing by	WR RPS
8) Partition numbers to 1,000,000	13/09/22	Place value chart Number of tens/ hundreds in 3/4-digit numbers	Partitioning 5-digit number	R&S: place value counters, place value chart, whole-part model, partitioned number sentences. <i>Concrete</i> <i>resources may be useful for some children.</i> MT: How can we partition in less conventional ways? V: Conceptual – partitioning the same number different ways F: adding multiples of thousands and hundreds C: Recognising value of digits in a number	The value of the first digit is The value of the next digit is is equal tothousands, hundreds, tens and ones.	Additional fluency – partitioning 6-digit numbers in standard way WR RPS
9) Number line to 1,000,000	14/09/22	Number tracks in powers of 10 Dividing by 10, 2 & 4	Number lines	R&S: Number lines MT: Follow distinct steps in correct order to work out where arrows are pointing – see sentence stems V: Conceptual variation in number lines – lengths, start and end points, number of intervals, etc F: division of numbers by 10, 2 and 4, counting in powers of 10 C: sequence steps in correct order to find numbers arrows are pointing to	The difference in value between the start and end point is There are intervals. The number line is counting up in 's	Additional fluency – more simple number lines – filling in missing numbers WR RPS
10) Compare and order numbers to 100,000	15/09/22	Partitioned number Roman numeral recap Terms ascending and descending	n/a	R&S: Place value chart, numerals, number line, Roman Numerals. <i>Concrete resources may be useful for some</i> <i>children.</i> MT: What process should be followed to compare numbers? – see stem sentences V: Conceptual – order in ascending and descending order F: Knowledge of place value columns C: Recognising the value of digits and which is greater / less	The first place value column I need to look at is is greater/less than, so is greater/less than	WR RPS
11) Compare and order numbers to 1,000,000	16/09/22	Place value knowledge > < symbols		R&S: Place value chart, numerals, number line. <i>Concrete</i> <i>resources may be useful for some children.</i> MT: What process should be followed to compare numbers? – see stem sentences V: Conceptual – order in ascending and descending order F: Knowledge of place value columns	The first place value column I need to look at is is greater/less than, so is greater/less than	WR RPS

		4-digit number comparison		C: Recognising the value of digits and which is greater / less		
12) Round to the nearest 10, 100 or 1000	19/09/22	Number line labels Counting in 10's, 100's	Real life rounding examples with reminder that 4 rounds down and 5 rounds up	R&S: number lines, fill in the blank sentences MT: Use of sentence stems in correct order to follow steps to round numbers, connection between number you are rounding to and column you focus on. Use the phrase <i>"round to the nearest…" rather than "round up/down"</i> V: rounding to 10, 100, 1,000 F: counting in multiples of 10, 100, 1,000 and recognising the previous and next multiples C: Understanding of what column to look at, and that <4 rounds down & >5 rounds up	The previous multiple of 10/100/ 1,000 is The next multiple of 10/100/1,000 is is closer to than rounded to the nearest 10/ 100/1,000 is	Additional fluency – rounding to nearest 10 and 100 WR RPS
13) Round within 100,000	20/09/22	Number line and counting in 10,000s Estimate position on number line Round to nearest 1,000	n/a	R&S: number lines, fill in the blank sentences, tables MT: Use of sentence stems in correct order to follow steps to round numbers, connection between number you are rounding to and column you focus on. Use the phrase "round to the nearest" rather than "round up/down" V: rounding to 10, 100, 1,000, 10,000, table with figures as 'attendance' F: counting in multiples of 10, 100, 1,000, 10,000 and recognising the previous and next multiples C: Understanding of what column to look at, and that <4 rounds down & >5 rounds up	The previous multiple of 10,000 is The next multiple of 10,000 is is closer to than rounded to the nearest 10,000 is	Additional fluency – rounding to nearest 10, 100 and 1,000 WR RPS
14) Round within 1,000,000	21/09/22	Number line and counting in 10,000s Estimate position on number line Round to nearest 1,000	n/a	R&S: number lines, fill in the blank sentences, tables MT: Use of sentence stems in correct order to follow steps to round numbers, connection between number you are rounding to and column you focus on. Use the phrase <i>"round to the nearest" rather than "round up/down"</i> V: rounding to 10,000 & 100,000 table with figures in £ F: counting in multiples of 10,000 & 100,000 and recognising the previous and next multiples C: Understanding of what column to look at, and that <4 rounds down & >5 rounds up	The previous multiple of 100,000 is The next multiple of 100,000 is is closer to than rounded to the nearest 100,000 is	See previous lesson: Additional fluency – rounding to nearest 1,000 & 10,000 if appropriate WR RPS
15) Mini assessment	22/09/22	Revisit relevant material in maths dictionaries				WR mini assessment