SPJS CURRICULUM LADDER – MATHS – PLACE VALUE

COUNTING

Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number count, read and write numbers to 100 in numerals ⊙⊙ LINK IT (Multiplication and Division): count in multiples of twos, fives and tens given a number, identify one more and one less 1NPV–1 Count within 100, forwards and backwards, starting with any number 1NF–2 Count forwards and backwards in multiples of 2, 5 and 10, up to 10 multiples, beginning with any multiple, and count forwards and backwards through the odd numbers.	⊙⊙ LINK IT (Multiplication and Division): count in steps of 2, 3, and 5 from 0, and in tens from any number, forward or backward	⊙⊙ LINK IT (Multiplication and Division): count from 0 in multiples of 4, 8, 50 and 100 find 10 or 100 more or less than a given number	count backwards through zero to include negative numbers ⊙⊙ LINK IT (Multiplication and Division): count in multiples of 6, 7, 9, 25 and 1 000 find 1000 more or less than a given number	interpret negative numbers in context count forwards and backwards with positive and negative whole numbers, including through zero ⊙⊙ LINK IT (Multiplication and Division): count forwards or backwards in steps of powers of 10 for any given number up to 1 000 000	use negative numbers in context, and calculate intervals across zero

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COMPARING NUMBERS

Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
LINK IT (Statistics): use the language of equal to, more than, less than (fewer), most, least	LINK IT (Measurement, Statistics): compare and order numbers from 0 up to 100; use <, > and = signs LINK IT (Measurement): compare and order lengths, mass, volume/capacity and record the results using <, > and =	LINK IT (Measurement, Statistics): compare and order numbers up to 1000 LINK IT (Measurement): compare durations of events… compare time in terms of seconds, minutes and hours	LINK IT (Measurement, Statistics): order and compare numbers beyond 1000 LINK IT (Fractions): compare numbers with the same number of decimal places up to two decimal places LINK IT (Measurement): estimate, compare and calculate different measures, including money in pounds and pence	LINK IT (Measurement, Statistics): read, write, order and compare numbers to at least 1 000 000 and determine the value of each digit (appears also in Reading and Writing Numbers) LINK IT (Fractions): read, write, order and compare numbers with up to three decimal places LINK IT (Measurement): use all four operations to solve problems involving measure using decimal notation including scaling	LINK IT (Measurement, Statistics): read, write, order and compare numbers up to 10 000 000 and determine the value of each digit (appears also in Reading and Writing Numbers) LINK IT (Fractions): identify the value of each digit in numbers given to three decimal places

IDENTIFYING, REPRESENTING AND ESTIMATING NUMBERS

Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
identify and represent numbers using objects and pictorial representations including the number line 1NPV–2 Reason about the location of numbers to 20 within the linear number system, including comparing using < > and =	identify, represent and estimate numbers using different representations, including the number line 2NPV–2 Reason about the location of any two-digit number in the linear number system, including identifying the previous and next multiple of 10.	identify, represent and estimate numbers using different representations	identify, represent and estimate numbers using different representations		

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READING AND WRITING NUMBERS (including Roman Numerals)

Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
read and write numbers from 1 to 20 in numerals and words.	read and write numbers to at least 100 in numerals and in words	read and write numbers up to 1000 in numerals and in words LINK IT (Measurement): tell and write the time from an analogue clock, including using Roman numerals from I to XII, and 12-hour and 24-hour clocks	read Roman numerals to 100 (I to C) and know that over time, the numeral system changed to include the concept of zero and place value	read, write, order and compare numbers to at least 1 000 000 and determine the value of each digit (appears also in Comparing Numbers) read Roman numerals to 1000 (M) and recognise years written in Roman numerals.	read, write, order and compare numbers up to 10 000 000 and determine the value of each digit (appears also in Understanding Place Value) LINK IT (Fractions): identify the value of each digit to three decimal places

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UNDERSTANDING PLACE VALUE

Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
	recognise the place value of each digit in a two-digit number (tens, ones) 2NPV–1 Recognise the place value of each digit in two-digit numbers, and compose and decompose two-digit numbers using standard and non-standard partitioning.	recognise the place value of each digit in a three-digit number (hundreds, tens, ones) LINK IT (Fractions): recognise that tenths arise from dividing an object into 10 equal parts and in dividing one – digit numbers or quantities by 10 3NPV–2 Recognise the place value of each digit in three-digit numbers, and compose and decompose three-digit numbers using standard and non-standard partitioning.	recognise the place value of each digit in a four-digit number (thousands, hundreds, tens, and ones) LINK IT (Fractions): find the effect of dividing a one- or two-digit number by 10 and 100, identifying the value of the digits in the answer as units, tenths and hundredths 4NPV–2 Recognise the place value of each digit in four-digit numbers, and compose and decompose four-digit numbers using standard and non-standard partitioning.	LINK IT (Multiplication and Division): multiply and divide whole numbers and those involving decimals by 10, 100 and 1000 LINK IT (Fractions): recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents 5NPV–2 Recognise the place value of each digit in numbers with up to 2 decimal places, and compose and decompose numbers with up to 2 decimal places using standard and nonstandard partitioning.	LINK IT (Fractions): identify the value of each digit to three decimal places LINK IT (Fractions): multiply and divide numbers by 10, 100 and 1000 where the answers are up to three decimal places 6NPV–2 Recognise the place value of each digit in numbers up to 10 million, including decimal fractions, and compose and decompose numbers up to 10 million using standard and nonstandard partitioning.

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ROUNDING

Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
	LINK IT (Place Value): choose and use appropriate standard units to estimate and measure to the nearest appropriate unit, using rulers, scales, thermometers and measuring vessels	3NPV–2 Reason about the location of any two digit number in the linear number system, including identifying the previous and next multiple of 10.	round any number to the nearest 10, 100 or 1 000 LINK IT (Fractions): round decimals with one decimal place to the nearest whole number LINK IT (Measurement): estimate, compare and calculate different measures, including money in pounds and pence 4NPV–3 Reason about the location of any four-digit number in the linear number system, including identifying the previous and next multiple of 1,000 and 100, and rounding to the nearest of each.	round any number up to 1 000 000 to the nearest 10, 100, 1 000, 10 000 and 100 000 LINK IT (Fractions): round decimals with two decimal places to the nearest whole number and to one decimal place 5NPV–3 Reason about the location of any number with up to 2 decimals places in the linear number system, including identifying the previous and next multiple of 1 and 0.1 and rounding to the nearest of each.	round any whole number to a required degree of accuracy LINK IT (Fractions): solve problems which require answers to be rounded to specified degrees of accuracy 6NPV–3 Reason about the location of any number up to 10 million, including decimal fractions, in the linear number system, and round numbers, as appropriate, including in contexts.

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PROBLEM SOLVING

Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
	use place value and number facts to solve problems	solve number problems and practical problems involving these ideas.	solve number and practical problems that involve all of the above and with increasingly large positive numbers LINK IT (Fractions): solve simple measure and money problems involving fractions and decimals to two decimal place	solve number problems and practical problems that involve all of the above LINK IT (Fractions): solve problems involving numbers up to three decimal places	solve number and practical problems that involve all of the above

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OBJECTIVES BASED ON READY TO PROGRESS ONLY

Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
		3NPV–1 Know that 10 tens are equivalent to 1 hundred, and that 100 is 10 times the size of 10; apply this to identify and work out how many 10s there are in other three-digit multiples of 10. 3NPV–4 Divide 100 into 2, 4, 5 and 10 equal parts, and read scales/number lines marked in multiples of 100 with 2, 4, 5 and 10 equal parts. (Also in Number: Multiplication and Division) 3NF–3 Apply place-value knowledge to known additive and multiplicative number facts (scaling facts by 10).	4NPV–1 Know that 10 tens are equivalent to 1 hundred, and that 100 is 10 times the size of 10; apply this to identify and work out how many 10s there are in other three-digit multiples of 10. 4NPV–1 Know that 10 hundreds are equivalent to 1 thousand, and that 1,000 is 10 times the size of 100; apply this to identify and work out how many 100s there are in other four-digit multiples of 100. 4NPV–4 Divide 1,000 into 2, 4, 5 and 10 equal parts, and read scales/number lines marked in multiples of 1,000 with 2, 4, 5 and 10 equal parts. (Also in Number: Multiplication and Division) 4NF–3 Apply place-value knowledge to known additive and multiplicative number facts (scaling facts by 100).	5NPV–1 Know that 10 tenths are equivalent to 1 one, and that 1 is 10 times the size of 0.1. Know that 100 hundredths are equivalent to 1 one, and that 1 is 100 times the size of 0.01. Know that 10 hundredths are equivalent to 1 tenth, and that 0.1 is 10 times the size of 0.01. 5NPV–5 Convert between units of measure, including using common decimals and fractions. 5NPV–4 Divide 1 into 2, 4, 5 and 10 equal parts, and read scales/number lines marked in units of 1 with 2, 4, 5 and 10 equal parts. (Also in Number: Multiplication and Division) 5NF–2 Apply place-value knowledge to known additive and multiplicative number facts (scaling facts by 1 tenth or 1 hundredth).	6NPV–1 Understand the relationship between powers of 10 from 1 hundredth to 10 million, and use this to make a given number 10, 100, 1,000, 1 tenth, 1 hundredth or 1 thousandth times the size (multiply and divide by 10, 100 and 1,000). NPV–4 Divide powers of 10, from 1 hundredth to 10 million, into 2, 4, 5 and 10 equal parts, and read scales/number lines with labelled intervals divided into 2, 4, 5 and 10 equal parts.

Main objectives are taken from the National Curriculum.

Highlighted objectives are non-statutory and are taken from the Ready to Progress documents.

LINK IT: Indicates a link with another unit of work

Objectives written with a red heading and black writing MUST be taught within the unit

Objectives written in green are optional links – Discuss when possible and use for mental starters, extension tasks etc.