



STEM Faculty: Maths The building blocks of learning. Our concepts stem from our whole school curriculum intent and thread through our entire school curriculum.
Wheeler's Lane Primary School Fluency (KIRFS) These are learnt systematically with an accumulation of knowledge. They are assessed half termly and form the basis of interventions. Previous half terms KIRFs are revisited regularly.

Weekly KIRF assessment focus	Nursery	Reception	Year One	Year Two	Year Three	Year Four	Year Five	Year Six
Autumn one	Recite and recognise the number names to five. Touch count to five	Name numbers in order to ten. Compare two numbers by saying which is more less.	Recite number names to fifty and beyond.	Recite the number names in order to 100. I know number bonds to 20.	Bridging Ten number facts (see grid). Count in 50s and 100s.	I know number bonds to 100. (eg 60 + 40, 35 + 65, 81 + 19)	I know the division and multiplication facts for all times tables up to 12 x12.	I know the division and multiplication facts for all times tables up to 12 x12.
Autumn Two	Recite the number names in order to five. Touch count to five.	Recognise quantities up to five without counting (subitizing).	I can zero or one to a number. I can add two to a number.	I know doubles and halves to numbers to 20. I know near doubles to 10.	I know to the multiplication and division facts for the 4 x tables (12 x 4)	Count in 3s. I know to the multiplication and division facts for the 3 x tables (up to 12 x 3)	I know decimal number bonds to 1 and 10.	Identify prime numbers up to 50. Square roots of square numbers up to 15 x 15
Spring One	Use the language of before, after and next	I can say one more than a given number up to 10.	I know number bonds to 10. I know odd and even numbers to twenty.	Count in twos. I know to the multiplication and division facts for the 2 x tables (12 x 2)	I know to the multiplication and division facts for the 8 x tables (12 x 8)	Count in 6s. I know to the multiplication and division facts for the 6 x tables (2 x 11)	I can find factor pairs of a number.	Know the decimal and percentage equivalents of the fractions $\frac{1}{2}$, $\frac{2}{4}$, $\frac{1}{4}$, $\frac{3}{4}$, tenths and fifths.
Spring Two	Sort objects and say which group is more/less. Name simple shapes: square, circle, triangle, rectangle	Partition number 5 into two groups (using manipulatives).	Count in twos in 20. Count in tens to 100. Count in 5s to 50.	Counting in 5 and 10s. I know to the multiplication and division facts for the 10 and 5 x tables (up to 12 x 10 and 12 x 5)	I know to the multiplication and division facts for the 11 x tables (12 x 11)	I know to the multiplication and division facts for the 7 x tables (12 x 7)	I can identify prime numbers up to 20. I can recall square numbers to 144.	Know measure conversions for length, mas, time and capacity.
Summer One	Recite number names to ten.	Recall numbers of numbers 0 – 10 including	I can add 10 to a number.	Count in 3s to 36.	Count up and down in tenths.	Revision of times tables in	Know the decimal and percentage	Revisit previous KIRFs.

		partitioning facts. Know some odd and even numbers to 10.	Months in a year. Days in a week	Know how many cm in a m. Mm in a cm. Know ml in l. G in a kg. Minutes in year How many quarters, halves and thirds in a whole.	Recognise decimal equivalence of tenths with fractions. I can multiply and divide one digit whole numbers by ten.	line with screening. After times table screen, I can recognise decimal equivalence the fractions, $\frac{1}{2}$, $\frac{1}{4}$, $\frac{3}{4}$, $\frac{1}{10}$,	equivalents of the fractions $\frac{1}{2}$, $\frac{2}{4}$, $\frac{1}{4}$, $\frac{3}{4}$, tenths and fifths.	
Summer Two	Recite number names in order to ten.	Recite number names in order to 20. Automatically recall doubles facts up to $5 + 5$	I know doubles and halves to numbers to ten. I know near doubles to 5 ($3 + 2 = 5$)	All bridging ten facts (see bridging ten grid).	I know to the multiplication and division facts for the 9 x tables (9×11)	Multiply and divide one and two digit whole numbers by 10 and 100. $34 \times 100 = 3400$	Know measure conversions for length, mas, time and capacity Revisit previous KIRFs.	Revisit previous KIRFs.

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Strand	Year 1		Year 2		Year 3		Year 4		Year 5		Year 6	
Focus	Counting in 2, 5 and 10	Knowing Year one number facts	Knowing bridging facts across 10	2, 5, 10 times table		4, 8, 9, 11 times table		3, 6, 7, 9 and 12 times table	Equivalent decimals, percentages and fractions.			
Key Question	What is special about the number 10?	How many colours in the rainbow?	What time is it Mr Wolf?		What's beyond 100? What's below zero?	What's a remainder?	How big is the playground?		What's the point of decimals?	What does systematic mean?	What's x represent?	How long is division?
Concept 2 Communication		10 little...				Bar modelling	How do we divide video?	Bar Modelling	Teaching video: how to round to a million			

