## Whiteshill Primary School Fluency Plan Year 5

## Fluency must include variation (see ready to progress tests and retrieve it quizzes for ideas)

KPI number	Objectives <mark>Year 4</mark> Year 5	Teaching Notes
1	Read and write 4-digit numbers	
2	Compare and order numbers up to 10,000	
3	Round any number up to 4-digits to the nearest 10, 100 or 1000	
6 and 7	Know and use multiplication and division facts for 2, 5, 10, 3, 4 and 8 multiplication tables	
6 and 7	Know and use multiplication and division facts for 6, 7, 9, 11 and 12 multiplication tables	
20	Recall factor-factor-product relationships for 6,7,9,11 and 12 multiplication tables	e.g. What is the product of these two factors: 5 and 6 What is the factor pair for 42 – need to use the language of factor and product
5	Add and subtract numbers with up to 4-digits mentally	
8	Add and subtract numbers with up to 4-digits using a formal written method	
11	Choose efficient methods to add and subtract numbers up to 4-digits	Questions that will lead to mental or written methods – the children have to choose which method to use.
12	Multiply 2-digit by a 1-digit using the distributive law	
13	Multiply 3-digit by a 1-digit using a formal written method	
14	Divide a 3-digit by a 1-digit number	

15	Use place value, known and derived facts to multiply and divide mentally	e.g. 60 x 70 or 240 ÷ 60 – using their knowledge of 6 x 7 and 24 ÷ 6
17	Divide 1 and 2-digit numbers by 10 and 100	
Year 2 - 16	Read scales in divisions of 1, 2, 5 and 10	
Year 3 - 17	Calculate fractions of amounts	
18	Add and subtract fractions with the same denominator beyond the whole	
19	Find families of equivalent fractions	
4	Classify quadrilaterals	One sheet – write lots of different questions on the board e.g. outline in green all the parallelograms, tick the smallest trapezium.
Year 3 - 5	Recognise horizontal, vertical, perpendicular and parallel lines	Use a ruler!
Year 3 – 21 Year 4 - 22	Use standard units to measure perimeter of shapes and find the area of rectilinear shapes by counting squares.	Rectilinear = shapes made out of rectangles – this may have to be a worksheet but make sure there is variation.
Year 3 – 22 Year 4 - 16	Identify angles in shapes, including right, acute and obtuse	Do not draw your own shapes – they will not be accurate freehand. Do the angles in different orientations for variation.
Year 3 - 20	Calculate durations of events	Keep it to quarter past, half past and o'clock e.g. Jimmy starts swimming at 10 o'clock and finishes at quarter past 11 – how long was he swimming? Variation – digital, analogue, 12 and 24hr
24	Convert between analogue and digital 12 and 24-hour clocks and other units of time	One clock face on each table – they write down the digital time in 24hr. Write some digital times e.g. 14:32 and they have to draw this in their books with their clock face stamp. Write some times in words e.g. quarter past 2 in the afternoon and they have to write it in

		their books as 12hr analogue (stamp) and 24hr digital
21	Add and subtract decimal numbers (up to 2 decimal places) including measures and money	
Year 3 - 23	Interpret bar charts	Worksheet – don't forget variation! One bar chart and lots of variety of questions.
23	Describe and plot positions on a 2-D grid as coordinates in the first quadrant	Blank 2D grid – write a lot of co-ordinates on the board.
1	Read and write numbers up to 1,000,000	
2 and 3	Compare and order numbers up to 1,000,000 and decimals with up to 3 decimal places.	
4	Round numbers to 1 decimal place, nearest whole number and 10, 100, 1000, 10000	
5	Count forwards and backwards with positive and negative numbers	
6 and 7	Add and subtract whole numbers with more than 4 digits and decimals with up to 3 decimal places choosing efficient methods	
12	Multiply 2-digit by a 1-digit using the distributive law	
13	Multiply 3-digit by a 1-digit using a formal written method	
14	Divide a 3-digit by a 1-digit number	
15	Use place value, known and derived facts to multiply and divide mentally	
Year 2 - 16	Read scales in divisions of 1, 2, 5 and 10	
Year 3 - 17	Calculate fractions of amounts	
18	Add and subtract fractions with the same denominator beyond the whole	
19	Find families of equivalent fractions	
4	Classify quadrilaterals	
Year 3 - 5	Recognise horizontal, vertical, perpendicular and parallel lines	

Year 3 – 21	Use standard units to measure perimeter of shapes and find the area of rectilinear	
Year 4 - 22	shapes by counting squares.	
Year 3 – 22	Identify angles in shapes, including right, acute and obtuse	
Year 4 - 16		
Year 3 - 20	Calculate durations of events	
24	Convert between analogue and digital 12 and 24-hour clocks and other units of time	
21	Add and subtract decimal numbers (up to 2 decimal places) including measures and money	
Year 3 - 23	Interpret bar charts	
23	Describe and plot positions on a 2-D grid as coordinates in the first quadrant	
8	Multiply and divide whole numbers and decimals by 10, 100 and 1000	
1	Read and write numbers up to 1,000,000	
2 and 3	Compare and order numbers up to 1,000,000 and decimals with up to 3 decimal places.	
4	Round numbers to 1 decimal place, nearest whole number and 10, 100, 1000, 10000	
5	Count forwards and backwards with positive and negative numbers	
6 and 7	Add and subtract whole numbers with more than 4 digits and decimals with up to 3	
	decimal places choosing efficient methods	
Year 2 - 16	Read scales in divisions of 1, 2, 5 and 10	
Year 3 - 17	Calculate fractions of amounts	
18	Add and subtract fractions with the same denominator beyond the whole	
19	Find families of equivalent fractions	
4	Classify quadrilaterals	
Year 3 - 5	Recognise horizontal, vertical, perpendicular and parallel lines	

Year 3 – 21	Use standard units to measure perimeter of shapes and find the area of rectilinear	
Year 4 - 22	shapes by counting squares.	
Year 3 – 22	Identify angles in shapes, including right, acute and obtuse	
Year 4 - 16		
Year 3 - 20	Calculate durations of events	
24	Convert between analogue and digital 12 and 24-hour clocks and other units of time	
Year 3 - 23	Interpret bar charts	
23	Describe and plot positions on a 2-D grid as coordinates in the first quadrant	
8	Multiply and divide whole numbers and decimals by 10, 100 and 1000	
9	Identify and use multiples, factors and prime numbers	
10 and 11	Multiply numbers up to 4-digits by 1 or 2-digits and divide numbers up to 4-digits by 1 digits using a formal written method	
12	Use known facts and place value to multiply a whole number by a decimal	
13	Multiply decimal numbers (1 or 2 decimal places) by 1-digit using a formal written method	
1	Read and write numbers up to 1,000,000	
2 and 3	Compare and order numbers up to 1,000,000 and decimals with up to 3 decimal places.	
4	Round numbers to 1 decimal place, nearest whole number and 10, 100, 1000, 10000	
5	Count forwards and backwards with positive and negative numbers	
6 and 7	Add and subtract whole numbers with more than 4 digits and decimals with up to 3	
	decimal places choosing efficient methods	
8	Multiply and divide whole numbers and decimals by 10, 100 and 1000	
9	Identify and use multiples, factors and prime numbers	

10 and 11	Multiply numbers up to 4-digits by 1 or 2-digits and divide numbers up to 4-digits by 1	
	digits using a formal written method	
12	Use known facts and place value to multiply a whole number by a decimal	
13	Multiply decimal numbers (1 or 2 decimal places) by 1-digit using a formal written	
	method	
4	Classify quadrilaterals	
Year 3 - 5	Recognise horizontal, vertical, perpendicular and parallel lines	
Year 3 – 21	Use standard units to measure perimeter of shapes and find the area of rectilinear	
Year 4 - 22	shapes by counting squares.	
Year 3 – 22	Identify angles in shapes, including right, acute and obtuse	
Year 4 - 16		
Year 3 - 20	Calculate durations of events	
24	Convert between analogue and digital 12 and 24-hour clocks and other units of time	
Year 3 - 23	Interpret bar charts	
23	Describe and plot positions on a 2-D grid as coordinates in the first quadrant	
14	Compare and order fractions whose denominators are all multiples of the same number	
15	Read and write decimal numbers (up to 3 decimal places) as fractions	
16	Understand that per cent relates to 'number of parts per 100', and write percentages as	
	a fraction with denominator	
18	Convert mixed numbers to improper fractions and vice versa	
19	Add mixed numbers and proper fractions with denominators that are the same and	
	multiples of each other	
20	Subtract proper fractions from mixed numbers with denominators that are the same and	
	multiples of each other	
21	Multiply fractions and mixed numbers by a whole number	

1	Read and write numbers up to 1,000,000
2 and 3	Compare and order numbers up to 1,000,000 and decimals with up to 3 decimal places.
4	Round numbers to 1 decimal place, nearest whole number and 10, 100, 1000, 10000
5	Count forwards and backwards with positive and negative numbers
6 and 7	Add and subtract whole numbers with more than 4 digits and decimals with up to 3 decimal places choosing efficient methods
8	Multiply and divide whole numbers and decimals by 10, 100 and 1000
9	Identify and use multiples, factors and prime numbers
10 and 11	Multiply numbers up to 4-digits by 1 or 2-digits and divide numbers up to 4-digits by 1 digits using a formal written method
12	Use known facts and place value to multiply a whole number by a decimal
13	Multiply decimal numbers (1 or 2 decimal places) by 1-digit using a formal written method
4	Classify quadrilaterals
Year 3 - 5	Recognise horizontal, vertical, perpendicular and parallel lines
Year 3 – 21	Use standard units to measure perimeter of shapes and find the area of rectilinear
Year 4 - 22 23	shapes by counting squares. Draw given angles, and measure them, in degrees (°)
Year 3 - 20	Calculate durations of events
24	Convert between analogue and digital 12 and 24-hour clocks and other units of time
Year 3 - 23	Interpret bar charts
23	Describe and plot positions on a 2-D grid as coordinates in the first quadrant
14	Compare and order fractions whose denominators are all multiples of the same number

15	Read and write decimal numbers (up to 3 decimal places) as fractions	
16	Understand that per cent relates to 'number of parts per 100', and write percentages as a fraction with denominator	
18	Convert mixed numbers to improper fractions and vice versa	
19	Add mixed numbers and proper fractions with denominators that are the same and multiples of each other	
20	Subtract proper fractions from mixed numbers with denominators that are the same and multiples of each other	
21	Multiply fractions and mixed numbers by a whole number	
17	Convert between adjacent units of metric measure	
1	Read and write numbers up to 1,000,000	
2 and 3	Compare and order numbers up to 1,000,000 and decimals with up to 3 decimal places.	
4	Round numbers to 1 decimal place, nearest whole number and 10, 100, 1000, 10000	
5	Count forwards and backwards with positive and negative numbers	
6 and 7	Add and subtract whole numbers with more than 4 digits and decimals with up to 3 decimal places choosing efficient methods	
8	Multiply and divide whole numbers and decimals by 10, 100 and 1000	
9	Identify and use multiples, factors and prime numbers	
10 and 11	Multiply numbers up to 4-digits by 1 or 2-digits and divide numbers up to 4-digits by 1 digits using a formal written method	
12	Use known facts and place value to multiply a whole number by a decimal	
13	Multiply decimal numbers (1 or 2 decimal places) by 1-digit using a formal written method	
4	Classify quadrilaterals	

Year 3 - 5	Recognise horizontal, vertical, perpendicular and parallel lines	
Year 3 – 21 Year 5 - 22	Use standard units to measure area and perimeter of rectilinear shapes	
23	Draw given angles, and measure them, in degrees (°)	
Year 3 - 20	Calculate durations of events	
24	Convert between analogue and digital 12 and 24-hour clocks and other units of time	
Year 3 – 23 Year 5 - 24	Interpret bar charts and line graphs	
23	Describe and plot positions on a 2-D grid as coordinates in the first quadrant	
14	Compare and order fractions whose denominators are all multiples of the same number	
15	Read and write decimal numbers (up to 3 decimal places) as fractions	
16	Understand that per cent relates to 'number of parts per 100', and write percentages as a fraction with denominator	
18	Convert mixed numbers to improper fractions and vice versa	
19	Add mixed numbers and proper fractions with denominators that are the same and multiples of each other	
20	Subtract proper fractions from mixed numbers with denominators that are the same and multiples of each other	
21	Multiply fractions and mixed numbers by a whole number	
17	Convert between adjacent units of metric measure	
1	Read and write numbers up to 1,000,000	
2 and 3	Compare and order numbers up to 1,000,000 and decimals with up to 3 decimal places.	
4	Round numbers to 1 decimal place, nearest whole number and 10, 100, 1000, 10000	
5	Count forwards and backwards with positive and negative numbers	

6 and 7	Add and subtract whole numbers with more than 4 digits and decimals with up to 3 decimal places choosing efficient methods	
0		
8	Multiply and divide whole numbers and decimals by 10, 100 and 1000	
9	Identify and use multiples, factors and prime numbers	
10 and 11	Multiply numbers up to 4-digits by 1 or 2-digits and divide numbers up to 4-digits by 1	
	digits using a formal written method	
12	Use known facts and place value to multiply a whole number by a decimal	
13	Multiply decimal numbers (1 or 2 decimal places) by 1-digit using a formal written	
	method	
4	Classify quadrilaterals	
Year 3 - 5	Recognise horizontal, vertical, perpendicular and parallel lines	
Year 3 – 21	Use standard units to measure area and perimeter of rectilinear shapes	
Year 5 - 22		
23	Draw given angles, and measure them, in degrees (°)	
Year 3 - 20	Calculate durations of events	
24	Convert between analogue and digital 12 and 24-hour clocks and other units of time	