## 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 Year 4 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: <br> 5 and 6 <br> 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. $60 \times 70$ or $240 \div 60-$ using their knowledge of $6 \times 7$ and $24 \div 6$ |
| :---: | :---: | :---: |
| 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 <br> 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. |
| $\begin{aligned} & \text { Year 3-22 } \\ & \text { Year 4-16 } \end{aligned}$ | 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 24 hr . <br> Write some digital times e.g. 14:32 and they have to draw this in their books with their clock face stamp. <br> Write some times in words e.g. quarter past 2 in the afternoon and they have to write it in |


|  |  | their books as 12 hr analogue (stamp) and 24 hr 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 |  |
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| 4 | Classify quadrilaterals |  |
| Year 3-5 | Recognise horizontal, vertical, perpendicular and parallel lines |  |


| Year 3-21 <br> Year 4-22 | Use standard units to measure perimeter of shapes and find the area of rectilinear shapes by counting squares. |
| :---: | :---: |
| $\begin{aligned} & \text { Year 3-22 } \\ & \text { Year 4-16 } \end{aligned}$ | Identify angles in shapes, including right, acute and obtuse |
| 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 |
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| 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 |  |
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| 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 |
| $\begin{aligned} & \text { Year 3-21 } \\ & \text { Year 4-22 } \end{aligned}$ | Use standard units to measure perimeter of shapes and find the area of rectilinear shapes by counting squares. |
| $\begin{aligned} & \text { Year 3-22 } \\ & \text { Year 4-16 } \end{aligned}$ | Identify angles in shapes, including right, acute and obtuse |
| 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 |


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| 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 |
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| 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 |
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| 4 | Classify quadrilaterals |
| Year 3-5 | Recognise horizontal, vertical, perpendicular and parallel lines |
| $\begin{aligned} & \text { Year 3-21 } \\ & \text { Year 4-22 } \end{aligned}$ | Use standard units to measure perimeter of shapes and find the area of rectilinear shapes by counting squares. |
| 23 | Draw given angles, and measure them, in degrees ( ${ }^{\circ}$ ) |
| 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 |
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| 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 |  |
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| 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 |  |
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| Year 3-21 <br> Year 5-22 | Use standard units to measure area and perimeter of rectilinear shapes |  |
| 23 | Draw given angles, and measure them, in degrees ( ${ }^{\circ}$ ) |  |
| 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 <br> 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 |  |
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| 21 | Multiply fractions and mixed numbers by a whole number |  |
| 17 | Convert between adjacent units of metric measure |  |
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