## Whiteshill Primary School

## Fluency Plan

Year 6

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

| KPI number | Objectives Year 5 Year 6 | Teaching Notes |
| :---: | :--- | :--- | :--- |
| 1 | Read and write numbers up to 1,000,000 | This is not a spelling lesson but to show an <br> understanding of place value e.g. do they <br> know where the zero goes in three thousand <br> and forty-two. |
| 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 <br> Add and subtract whole numbers with more than 4 digits and decimals with up to 3 <br> decimal places choosing efficient methods |  |
| 9 | Multiply and divide whole numbers and decimals by 10, 100 and 1000 |  |
| 10 and 11 | Multiply numbers up to 4-digits by 1 or 2-digits and divide numbers up to 4-digits by 1 <br> 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 |  |
| Year 4 -4 | Classify quadrilaterals |  |
| Year 3-5 | Recognise horizontal, vertical, perpendicular and parallel lines |  |


| $\begin{gathered} \hline \text { Year 3-21 } \\ \text { Year 5-22 } \end{gathered}$ | Use standard units to measure area and perimeter of rectilinear shapes |  |
| :---: | :---: | :---: |
| 23 | Draw given angles, and measure them, in degrees ( ${ }^{\circ}$ ) | Draw their own angles and measure it with protractor, write angles in degrees on the board which they then draw. |
| Year 3-20 | Calculate durations of events |  |
| Year 4-24 | Convert between analogue and digital 12 and 24-hour clocks and other units of time |  |
| $\begin{aligned} & \text { Year 3-23 } \\ & \text { Year 5-24 } \end{aligned}$ | Interpret bar charts and line graphs |  |
| Year 4-23 | 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 |  |
| Year 6-1 <br> Year 5-4 | Read, write order and round numbers up to 10,000,000 |  |
| 5 | Calculate intervals across zero |  |
| 2 | Multiply and divide numbers including decimals by 10, 100 and 1000 |  |


| 3 and 4 | Multiply and divide numbers up to 4 digits by a 2-digit number choosing efficient methods and interpreting the remainders |  |
| :---: | :---: | :---: |
|  | Add and subtract whole numbers with more than 4 digits and decimals with up to 3 decimal places choosing efficient methods |  |
|  | Identify and use multiples, factors and prime numbers |  |
|  | Use known facts and place value to multiply a whole number by a decimal |  |
|  | Multiply decimal numbers (1 or 2 decimal places) by 1-digit using a formal written method |  |
|  | Classify quadrilaterals |  |
|  | Recognise horizontal, vertical, perpendicular and parallel lines |  |
|  | Use standard units to measure area and perimeter of rectilinear shapes |  |
|  | Draw given angles, and measure them, in degrees ( ${ }^{\circ}$ ) |  |
|  | Calculate durations of events |  |
|  | Convert between analogue and digital 12 and 24-hour clocks and other units of time |  |
|  | Interpret bar charts and line graphs |  |
|  | Describe and plot positions on a 2-D grid as coordinates in the first quadrant |  |
|  | Convert between adjacent units of metric measure |  |
| 8 | Simplify fractions |  |
| 9 | Compare and order fractions, including fractions > 1 |  |
| 10 | Know and use simple fraction, decimal and percentage equivalents |  |
| 14 | Add and subtract fractions with denominators that are not multiples of each other |  |
| 15 | Add and subtract mixed numbers |  |
| 16 | Multiply simple pairs of proper fractions and divide proper fractions by a whole number |  |


| $\begin{aligned} & \text { Year 6-1 } \\ & \text { Year 5-4 } \end{aligned}$ | Read, write order and round numbers up to 10,000,000 |  |
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| 5 | Calculate intervals across zero |  |
| 2 | Multiply and divide numbers including decimals by 10, 100 and 1000 |  |
| 3 and 4 | Multiply and divide numbers up to 4 digits by a 2-digit number choosing efficient methods and interpreting the remainders |  |
|  | Add and subtract whole numbers with more than 4 digits and decimals with up to 3 decimal places choosing efficient methods |  |
|  | Identify and use multiples, factors and prime numbers |  |
|  | Use known facts and place value to multiply a whole number by a decimal and multiply decimal numbers ( 1 or 2 decimal places) by 1 -digit using a formal written method. |  |
| 8 | Simplify fractions |  |
| 9 | Compare and order fractions, including fractions > 1 |  |
| 10 | Know and use simple fraction, decimal and percentage equivalents |  |
| 14 | Add and subtract fractions with denominators that are not multiples of each other |  |
| 15 | Add and subtract mixed numbers |  |
| 16 | Multiply simple pairs of proper fractions and divide proper fractions by a whole number |  |
| 18 | Find percentages of an amount |  |
| 19 | Use simple ratio to compare quantities |  |
|  | Classify quadrilaterals |  |
|  | Recognise horizontal, vertical, perpendicular and parallel lines |  |
|  | Use standard units to measure area and perimeter of rectilinear shapes |  |
|  | Draw given angles, and measure them, in degrees ( ${ }^{\circ}$ ) |  |


|  | Calculate durations of events |  |
| :---: | :---: | :---: |
|  | Convert between analogue and digital 12 and 24-hour clocks and other units of time |  |
|  | Interpret bar charts and line graphs |  |
|  | Describe and plot positions on a 2-D grid as coordinates in the first quadrant |  |
|  | Convert between adjacent units of metric measure |  |
| 23 | Use simple formulae expressed in words |  |
| 24 | Find possible values in missing number problems involving one or two unknowns |  |
| Year 6-1 <br> Year 5-4 | Read, write order and round numbers up to 10,000,000 |  |
| 5 | Calculate intervals across zero |  |
| 2 | Multiply and divide numbers including decimals by 10, 100 and 1000 |  |
| 3 and 4 | Multiply and divide numbers up to 4 digits by a 2-digit number choosing efficient methods and interpreting the remainders |  |
|  | Add and subtract whole numbers with more than 4 digits and decimals with up to 3 decimal places choosing efficient methods |  |
|  | Identify and use multiples, factors and prime numbers |  |
|  | Use known facts and place value to multiply a whole number by a decimal and multiply decimal numbers ( 1 or 2 decimal places) by 1-digit using a formal written method. |  |
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| 18 | Find percentages of an amount |  |
| 19 | Use simple ratio to compare quantities |  |
| 11 | Compare and classify 2-D and 3-D shapes |  |
|  | Recognise horizontal, vertical, perpendicular and parallel lines |  |
| Year 6-21 | Use standard units to measure area and perimeter of rectilinear shapes, area of triangles and prallelograms |  |
| 13 | Draw simple shapes using given lengths and angles |  |
|  | Calculate durations of events |  |
|  | Convert between analogue and digital 12 and 24-hour clocks and other units of time |  |
|  | Interpret bar charts and line graphs |  |
| 6 and 7 | Describe and plot positions on a 2-D grid as coordinates in the four quadrants by reflecting and translating shapes |  |
| 20 | Convert between different units of metric measure |  |
| 23 | Use simple formulae expressed in words |  |
| 24 | Find possible values in missing number problems involving one or two unknowns |  |
| 22 | Calculate volumes of cuboids |  |
| 12 | Know and use angle properties of straight lines, at a point and shapes |  |
| Year 6-1 <br> Year 5-4 | Read, write order and round numbers up to 10,000,000 |  |
| 5 | Calculate intervals across zero |  |
| 2 | Multiply and divide numbers including decimals by 10, 100 and 1000 |  |


| 3 and 4 | Multiply and divide numbers up to 4 digits by a 2-digit number choosing efficient methods and interpreting the remainders |  |
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|  | Add and subtract whole numbers with more than 4 digits and decimals with up to 3 decimal places choosing efficient methods |  |
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