## HVPA Maths Updated Sequence of Learning Progression - Year 3

This overview breaks down each of the Programmes of Study and domains covered by Year 3 and shows the approximate amount of weeks expected in the teaching of each area. Time is built in for consolidation and extension (based on the security of pupils' understanding \& readiness to move on, challenge through problem solving and reasoning) and assessment within each term.

Year 3 progression: there has been very little change to the progression of units, although two of the three Multiplication \& Division units now fall in Term A. Resources to have ready: in the Autumn term you are mostly going to need base 10 apparatus.

## Changes within the Learning Progressions:

Place Value Within 100

- The first three steps review children's learning of numbers to 100 from key stage 1 to ensure they are ready to move onto numbers to 1,000 . Greater emphasis is placed on the different ways of partitioning numbers to 1,000 and the place value of each of the digits in the numbers. There is more emphasis on the use of the number line to deepen understanding of the relative position of numbers in the linear number system.


## Addition \& Subtraction

- Children now learn to use the formal column methods of addition and subtraction for the first time. To support them to do this fluently, several steps are included to ensure they have the mental skills to perform the calculations and to prevent cognitive overload when working on these.
- The formal methods are introduced slowly and carefully looking at calculations without exchanges before bringing in exchange, linking to the mental methods covered earlier.
- Complements to 100 are explicitly explored in a new step.
- The final step encourages children to consider both the choice of operation when solving a problem, and what method would be most efficient so that they do not apply the formal method even when it is inappropriate to do so.


## Multiplication \& Division

- Before moving on the new times tables for Year 3, more time is spent on revisiting and reinforcing the structure of multiplication and division, using arrays and developing children's understanding of sharing and grouping.
- A new step is included to explicitly make the links between the 2,4 and 8 times-tables
- The word 'multiple' is emphasised

| Autumn Term |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Strand | PM Unit | PM Unit Title | Lesson | NC Objective 1 | NC Objective 2 |
| Number - <br> Number and Place Value <br> (approx. $21 / 2$ to 3 weeks) | 1 | $\begin{gathered} \text { Place Value within } \\ 1000 \\ \text { (13 lessons) } \end{gathered}$ | Represent and partition numbers to 100 | Recognise the place value of each digit in a two-digit number (tens, ones) (Year 2) <br> Compare and order numbers up to 1,000 | Identify, represent and estimate numbers using different representations, including the number line |
|  |  |  | Number line to 100 | Compare and order numbers up to 1,000 |  |
|  |  |  | 100s | Count from 0 in multiples of $4,8,50$ and 100 ; find 10 or 100 more or less than a given number | Recognise the place value of each digit in a three-digit number (hundreds, tens, ones) |
|  |  |  | Represent numbers to 1,000 | Identify, represent and estimate numbers using different representations, including the number line |  |
|  |  |  | Partition numbers to 1,000 | Recognise the place value of each digit in a threedigit number ( $100 \mathrm{~s}, 10 \mathrm{~s}, 1 \mathrm{~s}$ ) | Identify, represent and estimate numbers using different representations, including the number line |
|  |  |  | Partition numbers to 1,000 flexibly |  |  |
|  |  |  | 100s, 10s and 1s |  | Identify, represent and estimate numbers using different representations, including the number line |
|  |  |  | Use a number line to 1,000 | Identify, represent and estimate numbers using different representations, including the number line | Recognise the place value of each digit in a three-digit number ( $100 \mathrm{~s}, 10 \mathrm{~s}, 1 \mathrm{~s}$ ) |
|  |  |  | Estimate on a number line to 1,000 |  |  |
|  |  |  | Find 1, 10 and 100 more or less | Count from 0 in multiples of $4,8,50$ and 100 ; find 10 or 100 more or less than a given number | Recognise the place value of each digit in a three-digit number ( $100 \mathrm{~s}, 10 \mathrm{~s}, 1 \mathrm{~s}$ ) |
|  |  |  | Compare numbers to $1,000$ | Compare and order numbers up to 1,000 |  |
|  |  |  | Order numbers to 1,000 |  |  |
|  |  |  | Count in 50s | Count from 0 in multiples of 4, 8,50 and 100; find 10 or 100 more or less than a given number |  |
| Number - addition and subtraction (approx. 5 weeks) | 2 | Addition and subtraction (1) (10 lessons) | Apply number bonds within 10 | Recognise the place value of each digit in a two-digit number (10s, 1s) (Year 2) | Add and subtract numbers mentally, including: a three-digit number and ones, a three-digit number and tens, a three-digit number and hundreds |
|  |  |  | Add/subtract 1s | Add and subtract numbers mentally, including: a three-digit number and ones, a three-digit number and tens, a three-digit number and hundreds | Solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction |
|  |  |  | Add/subtract 10s |  |  |




| Measurement money (approx. 1 week) | 12 | Money (5 lessons) | Pounds and pence | Add and subtract amounts of money to give change, using both $£$ and $p$ in practical contexts |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Convert pounds and pence |  |  |
|  |  |  | Add money |  |  |
|  |  |  | Subtract money |  |  |
|  |  |  | Find change |  |  |
| Measurement -time(approx. $2 \frac{1}{2}$ weeks) | 13 | Time (12 lessons) | Roman numerals to 12 | Tell and write the time from an analogue clock, including using Roman numerals from I to XII, and 12hour and 24 -hour clocks |  <br> Estimate and read time with increasing <br> accuracy to the nearest minute; record and <br> compare time in terms of seconds, minutes and <br> hours; <br> morne vocabulary such afternoon, noon as ond midock, am/ $\mathrm{pm} / \mathrm{pm}$, |
|  |  |  | Tell the time to 5 minutes |  |  |
|  |  |  | Tell the time to the minute |  |  |
|  |  |  | Read time on a digital clock | Estimate and read time with increasing accuracy to the nearest minute; record and compare time in terms of seconds, minutes and hours; use vocabulary such as o'clock, am/pm, morning, afternoon, noon and midnight | Tell and write the time from an analogue clock, including using Roman numerals from I to XII, and 12 -hour and 24 -hour clocks |
|  |  |  | Use am and pm | Estimate and read time with increasing accuracy to the nearest minute; record and compare time in terms of seconds, minutes and hours; use vocabulary such as o'clock, am/pm, morning, afternoon, noon and midnight |  |
|  |  |  | Years, months and days | Know the number of seconds in a minute and the number of days in each month, year and leap year |  |
|  |  |  | Days and hours | Estimate and read time with increasing accuracy to the nearest minute; record and compare time in terms of seconds, minutes and hours; use vocabulary such as o'clock, am/pm, morning, afternoon, noon and midnight | Tell and write the time from an analogue clock, including using Roman numerals from I to XII, and 12 -hour and 24 -hour clocks |
|  |  |  | Hours and minutes start and end times |  | Compare durations of events [for example to calculate the time taken by particular events or tasks] |
|  |  |  | Hours and minutes durations | Compare durations of events [for example to calculate the time taken by particular events or tasks] | Estimate and read time with increasing accuracy to the nearest minute; record and compare time in terms of seconds, minutes and hours; use vocabulary such as o'clock, am/pm, morning, afternoon, noon and midnight |
|  |  |  | Hours and minutes compare durations | Estimate and read time with increasing accuracy to the nearest minute; record and compare time in terms of seconds, minutes and hours; use vocabulary such as o'clock, am/pm, morning, afternoon, noon and midnight | Compare durations of events [for example to calculate the time taken by particular events or tasks] |
|  |  |  | Minutes and seconds |  |  |
|  |  |  | Solve problems with time |  |  |
| Geometry properties of shape (approx. 2 weeks) | 14 | Angles \& properties of shape (9 lessons) | Turns and angles | Recognise angles as a property of shape or a description of a turn | Identify right angles, recognise that two right angles make a half-turn, three make three quarters of a turn and four a complete turn; identify whether angles are greater than or less than a right angle |
|  |  |  | Right angles in shapes |  |  |
|  |  |  | Compare angles | Identify right angles, recognise that two right angles make a half-turn, three make three quarters of a turn and four a complete turn; identify whether angles are greater than or less than a right angle | Recognise angles as a property of shape or a description of a turn |
|  |  |  | Measure and draw accurately | Draw 2D shapes and make 3D shapes using modelling materials; recognise 3D shapes in different orientations and describe them | Identify horizontal and vertical lines and pairs of perpendicular and parallel lines |
|  |  |  | Horizontal and vertical | Identify horizontal and vertical lines and pairs of perpendicular and parallel lines |  |
|  |  |  | Parallel and perpendicular |  |  |  |
|  |  |  | Recognise, draw and describe 2D shapes | Draw 2D shapes and make 3D shapes using modelling materials; recognise 3-D shapes in different orientations and describe them |  |
|  |  |  | Recognise and describe 3D shapes |  |  |  |
|  |  |  | Make 3D shapes |  |  |  |
| Statistics (approx. ${ }^{21 ⁄ 2}$ weeks) | 15 | Statistics <br> (7 lessons) | Interpret pictograms (1) | Interpret and present data using bar charts, pictograms and tables | Solve one-step and two-step questions [for example, 'How many more?' and 'How many fewer?'] using information presented in scaled bar charts and pictograms and tables |
|  |  |  | Interpret pictograms (2) |  |  |
|  |  |  | Draw pictograms | Interpret and present data using bar charts, pictograms and tables | Solve one-step and two-step questions [for example, 'How many more?' and 'How many fewer?'] using information presented in scaled bar charts and pictograms and tables |
|  |  |  | Interpret bar charts (1) |  |  |
|  |  |  | Interpret bar charts (2) |  | Solve one-step and two-step questions [for example, 'How many more?' and 'How many fewer?'] using information presented in scaled bar charts and pictograms and tables |
|  |  |  | Collect and represent data in a bar chart <br> Simple two-way tables | Interpret and present data using bar charts, pictograms and tables |  |
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