Maths Curriculum Overview 2021/22 - Red Phase (4)

|  | Autumn |  | Spring |  | Summer |  |
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| Week | 1 | 2 | 1 | 2 | 1 | 2 |
| 1 | Assessment Week | Number - Place value <br> Multiplication <br> Can I identify multiples and factors, including finding all factor pairs of a number, and common factors of 2 numbers? <br> Do I know and use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers? <br> Can I establish whether a number up to 100 is prime and recall prime numbers up to 19 ? | Assessment Week | Measure <br> Money <br> Can I find the effect of dividing a one- or two-digit number by 10 and 100, identifying the value of the digits in the answer as units, tenths and hundredths? <br> Can I solve simple measure and money problems involving fractions and decimals to two decimal places? | Assessment Week | Measure <br> Time <br> Can I read, write and convert time between analogue and digital 12- and 24-hour clocks? <br> Can solve problems involving converting between units of time? |
| 2 | Number - Place value <br> Place Value <br> Can I read, write, order and compare numbers to at least 1000000 and determine the value of each digit? <br> Can I count forwards or backwards in steps of powers of 10 for any given number up to $1,000,000$ ? | Number - Place value <br> Place Value <br> Can I count forwards and backwards in steps of powers of $10 ?$ <br> Can I read Roman numerals to 1000 (M) and recognise years written in Roman numerals? | Geometry <br> Position and Movement <br> Can I describe movements between positions as translations of a given unit to the left/right and up/down? <br> Can I identify, describe and represent the position of a shape following a reflection or translation, using the appropriate language, and know that the shape has not changed? | Measure <br> Measurement <br> Can I measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres? <br> Can I calculate and compare the area of squares and rectangles including using standard units, square centimetres (cm2) area of irregular shapes? <br> Can I estimate volume [for example, using $1 \mathrm{~cm}^{3}$ blocks to build cuboids] and capacity [for example, using water]? | Statistics <br> Complete, read and interpret information in tables, including timetables. | Measure <br> Measurement <br> Can I use all four operations to solve problems involving measure [for example, length, mass, volume, money] using decimal notation including scaling? |


| 3 | Number - Place value <br> Place Value <br> Can I read, write, order and compare numbers to at least 1000000 and determine the value of each digit? <br> Can I interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through zero? | Number - Place value <br> Division <br> Can I multiply and divide numbers mentally, drawing upon known facts? <br> Can I multiply and divide whole numbers and those involving decimals by 10,100 and 1,000 ? | Number - Place value <br> Place Value <br> Can I read, write, order and compare numbers to at least 1000000 and determine the value of each digit? <br> Can I solve number problems and practical problems that involve all of the above? | Number - Place value <br> Place Value <br> Can I read, write, order and compare numbers to at least 1000000 and $\qquad$ to the nearest $10,100,1000,10,000$, and 100,000 ? | Number - Place value <br> Decimals <br> Can I recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents? <br> Can I round decimals with two decimals places to the nearest whole number and to one decimal place? | Number - Place value <br> Place Value <br> Can I read, write, order and compare numbers to at least 1000000 and determine the value of each digit? <br> Can I solve number problems and practical problems that involve all of the above? |
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| 4 | Number - Place value <br> Addition <br> Can I add whole numbers with more than 4 digits, including using formal written methods (columnar addition)? | Number - Place value <br> Division <br> Can I divide numbers up to 4 digits by a one-digit number using the formal written method of short division and interpret remainders appropriately for the context? | Number - Place value <br> Addition and Subtraction <br> Can I use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy? <br> Can I solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why? | Number - Place value <br> Multiplication and Division <br> Can I recall multiplication and division facts for multiplication tables up to $12 \times$ 12 ? <br> Can I solve problems involving multiplication and division where larger numbers are used by decomposing them into their factors? <br> Can I multiply numbers up to 4 digits by a one- or two-digit number using a formal written method, including long <br> multiplication for two-digit numbers? <br> Can I solve problems involving addition, subtraction, multiplication and division and a combination of these, including sign? <br> Can I solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates? | Number - Place value <br> Fractions / Decimals <br> Percentages <br> Do I recognise the per cent symbol (\%) and understand that per cent relates to number of parts per hundred' and write percentages as a fraction with denominator hundred, and as a decima fraction? <br> Can I solve problems which require knowing percentage and decimal equivalents of $1 / 2,1 / 4,1 / 5,2 / 5,4 / 5$ and those with a denominator of a multiple of 10 or 25 ? | Number - Place value <br> Addition and <br> Subtraction <br> Can I add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction)? <br> Can I solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why? |
| 5 | Number - Place value <br> Subtraction | Number - Place value <br> Fractions | Number - Place value | Measure <br> Time | Geometry <br> Properties of shape <br> Can I identify 3-D shapes, including cubes and other cuboids, from 2D | Number - Place value <br> Multiplication and Division |


|  | Can I subtract whole numbers with more than 4 digits, including using formal written methods (columnar subtraction)? | Can I compare and order fractions whose denominators are all multiples of the same number? <br> Can I identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths? | Addition and Subtraction <br> Can I add and subtract numbers mentally with increasingly large numbers? <br> Can I use rounding to check answers to calculations and determine, in the contex of a problem, levels of accuracy? | Can solve problems involving converting between units of time? | representations? <br> Can I use the properties of rectangles to deduce related facts and find missing lengths and angles? <br> Can I distinguish between regular and irregular polygons based on reasoning about equal sides and angles? | Can I divide numbers up to 4 digits by a one digit number using the formal written method appropriately for the context? <br> Can I solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign? |
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| 6 | Number - Place value <br> Addition and Subtraction <br> Can I add and subtract numbers mentally with increasingly large numbers? <br> Can I solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why? | Number - Place value <br> Fractions <br> Can I recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements $>1$ as a mixed number, e.g. $2 / 5+4 / 5=6 / 5=11 / 5$ ? <br> Can I add and subtract fractions with the same denominator and multiples of the same number? | Measure <br> Time <br> Can I read, write and convert time between analogue and digital 12- and 24 hour clocks? | Geometry <br> Properties of shape <br> Do I know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles? <br> Can I draw given angles, and measure them in degrees $\left({ }^{\circ}\right)$ ? | Geometry <br> Position and Movement <br> Can I identify, describe and represent the position of a shape following a reflection or translation, using the appropriate language, and know that the shape has not changed? | Statistics <br> Complete, read and interpret information in tables, including timetables. |
| 7 | Number - Place value <br> Multiplication <br> Can I recall multiplication facts for multiplication tables up to $12 \times 12$ ? <br> Can I solve problems involving multiplying and adding, including using the distributive law to multiply two-digit numbers by one digit, integer scaling problems and harder correspondence problems such as n objects are onnected to m objects? | Geometry <br> Properties of shape <br> Can I identify 3-D shapes, including cubes and other cuboids, from 2D representations? |  |  |  | Measure <br> Money <br> Can I use all four operations to solve problems involving measure [for example, length, mass, volume, money] using decimal notation including scaling? |

## Topic coverage (number of weeks)

Fractions/Decimals/Percentages - 4
Extended coverage through - mental maths, investigative questioning, next steps, interventions, cross-topic links

