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| **Year 4 Programme of Study - *‘Term per page overview’ 2017-2018 FINAL*** |
| **Term** | **National Curriculum requirements**  |
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| **Autumn**  | **Unit 1****Reasoning with 4 digit numbers****(2 weeks)** | * find 1000 more or less than a given number
* recognise the place value of each digit in a four-digit number (thousands, hundreds, tens, and ones)
* order and compare numbers beyond 1000
* solve number and practical problems that involve all of the above and with increasingly large positive numbers
* identify, represent and estimate numbers using different representations
* round any number to the nearest 10, 100 or 1000
* count in multiples of 6, 7, 9, 25 and 1000
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| **Unit 2** **Addition and subtraction****(3 weeks)** | * add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate
* estimate and use inverse operations to check answers to a calculation
* solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why
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| **Unit 3 Multiplication and division****(3 weeks)** | * recall multiplication and division facts for multiplication tables up to 12 × 12
* 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 connected to *m* objects
* recognise and use factor pairs and commutativity in mental calculations
* use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together three numbers
* multiply two-digit and three-digit numbers by a one-digit number using formal written layout
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| **Unit 4** **Interpreting and presenting data****(2 weeks)** | * solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs
* interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs
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| **Spring**  | **Unit 5** **Securing multiplication facts****(1 week)** | * recall multiplication and division facts for multiplication tables up to 12 × 12
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| **Unit 6** **Fractions****(4 weeks)** | * add and subtract fractions with the same denominator
* recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements > 1 as a mixed number [for example, $\frac{2}{5}$ + $\frac{4}{5}$ = $\frac{6}{5}$ = 1$\frac{1}{5}$] (Y5)
* recognise and show, using diagrams, families of common equivalent fractions
* count up and down in hundredths; recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten
* solve problems involving increasingly harder fractions to calculate quantities, and fractions to divide quantities, including non-unit fractions where the answer is a whole number
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| **Unit 7****Time****(1 week)** | * convert between different units of measure [for example, hour to minute]
* problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days
* write and convert time between analogue and digital 12- and 24-hour clocks
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| **Unit 8** **Decimals** **(3 weeks)** | * 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 ones, tenths and hundredths
* recognise and write decimal equivalents of any number of tenths or hundredths
* recognise and write decimal equivalents to $\frac{1}{4}$, $\frac{1}{2}$, $\frac{3}{4}$
* round decimals with one decimal place to the nearest whole number
* compare numbers with the same number of decimal places up to two decimal places
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| **Unit 9** **Area and perimeter****(2 weeks)** | * measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres
* convert between different units of measure [for example, kilometre to metre]
* find the area of rectilinear shapes by counting squares
* calculate and compare the area of rectangles (including squares), and including using standard units, square centimetres (cm2) and square metres (m2) (Y5)
* measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres (Y5)
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| **Summer**  | **Unit 10****Solving measure and money problems** **(3 weeks)** | * convert between different units of measure [for example, kilometre to metre; hour to minute]
* solve simple measure and money problems involving fractions and decimals to two decimal places
* estimate, compare and calculate different measures, including money in pounds and pence
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| **Unit 11****2-D shape and symmetry****(3 weeks)** | * compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes
* identify acute and obtuse angles and compare and order angles up to two right angles by size
* identify lines of symmetry in 2-D shapes presented in different orientations
* complete a simple symmetric figure with respect to a specific line of symmetry
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| **Unit 12****Position and direction****(1 week)** | * describe positions on a 2-D grid as coordinates in the first quadrant
* describe movements between positions as translations of a given unit to the left/right and up/down
* plot specified points and draw sides to complete a given polygon
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| **Unit 13****Reasoning with patterns and sequences****(2 weeks)** | * read Roman numerals to 100 (I to C) and know that over time, the numeral system changed to include the concept of zero and place value
* count backwards through zero to include negative numbers
* recognise and use square numbers, and the notation for squared (2) (Y5)
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| **Unit 14****3-D shape****(1 week)** | * identify 3-D shapes, including cubes and other cuboids, from 2-D representations (Y5)
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