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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 |
| **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 |
| **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 |
| **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 |
| **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, + = = 1] (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 |
| **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 |
| **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 , , * 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 |
| **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 |
| **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 |
| **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 |
| **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) |
| **Unit 14**  **3-D shape**  **(1 week)** | * identify 3-D shapes, including cubes and other cuboids, from 2-D representations (Y5) |