**Federation of Golden Flatts and Lynnfield Primary Schools**

|  |  |  |
| --- | --- | --- |
| **Year 4 - Autumn** | **Year 4 -Spring** | **Year 4 - Summer** |
| **Expected Standard** | | |
| **Number: Place Value** | **Measures: Area** | **Measures: Money** |
| * Count in multiples of 6, 7, 9. 25 and 1000. * 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 * Identify, represent and estimate numbers using different representations. * Round any number to the nearest 10, 100 or 1000 * Solve number and practical problems that involve all of the above and with increasingly large positive numbers. * Count backwards through zero to include negative numbers. * 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. | * Find the area of rectilinear shapes by counting squares. * Estimate, compare and calculate different measures | * Estimate, compare and calculate different measures, including money in pounds and pence. * Solve simple money problems. |
| **Number: Addition and Subtraction** | **Number: Fractions** | **Measures: Time** |
| * 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. | * 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. * Add and subtract fractions with the same denominator. * Find the effect of dividing a one or two digit number by 10 or 100, identifying the value of the digits in the answer as ones, tenths and hundredths. * Solve simple measure problems involving fractions. | * Convert between different units of measure [for example, kilometre to metre; hour to minute] * Read, write and convert time between analogue and digital 12- and 24-hour clocks. * Solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days. |
| **Measures: Length and Perimeter** | **Number: Decimals** | **Statistics** |
| * 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] | * Recognise and write decimal equivalents of any number of tenths or hundredths. | * Interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs. * Solve comparison, sum and difference problems using information presented in bar charts,   pictograms, tables and other graphs. |
| **Number: Multiplication and Division** | **Number: Multiplication and Division** | **Number: Decimals** |
| * Recall and use multiplication and division facts for multiplication tables up to 12 × 12. * 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. | * Recognise and use factor pairs and commutativity in mental calculations * multiply two-digit and three-digit numbers by a one-digit number using formal written layout. * Solve problems including 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 | * Compare numbers with the same number of decimal   places up to two decimal places   * recognise and write decimal equivalents of any number of tenths or hundredths * Find the effect of dividing a one or two-digit number by 10 or 100, identifying the value of the digits in the answer as ones, tenths and hundredths * Solve simple measure problems involving fractions and decimals to two decimal places. * Round decimals with one decimal place to the nearest whole number. * Recognise and write decimal equivalents to 1/4 , 1/2 and ¾. |
| **Geometry: Properties of Shape** |
| * Identify acute and obtuse angles and compare and order angles up to two right angles by size. * Compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes. * 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. |
| **Geometry: Position and Direction** |
| * Describe positions on a 2-D grid as coordinates in the first quadrant. * Plot specified points and draw sides to complete a given polygon. * Describe movements between positions as translations of a given unit to the left/ right and up/ down. |
| **Greater Depth** | | |
| * ‘Higher score’ in standardised tests. * Reasoning and explain using age appropriate mathematical vocabulary precisely (eg, if I know 3 x 7 = 21 I know 6 x 7 = 42 because double 3 is 6 so double 21 is 42). * Make connections between different aspects of the curriculum (eg, can find a missing vertex of a rectangle when given the other 3 vertices). * Independently use an efficient approach to problem solving. * Solve problems of greater complexity, where the approach is not immediately obvious. * Explain their thinking to others. * Record answers clearly in a variety of ways. * Eg, ‘Sally has 9 times more football cards as Sam. Together they have 150 cards. How many more cards does Sally have than Sam?’ | * ‘Higher score’ in standardised tests. * Reasoning and explain using age appropriate mathematical vocabulary precisely (eg, if I know 3 x 7 = 21 I know 6 x 7 = 42 because double 3 is 6 so double 21 is 42). * Make connections between different aspects of the curriculum (eg, can find a missing vertex of a rectangle when given the other 3 vertices). * Independently use an efficient approach to problem solving. * Solve problems of greater complexity, where the approach is not immediately obvious. * Explain their thinking to others. * Record answers clearly in a variety of ways. * Eg, ‘Peter wrote down 2 fractions. He subtracted the smaller fraction from the larger fraction and got 1/8 as the answer. Write down 2 fractions that Peter could have subtracted. What other pairs can you find?’ | * ‘Higher score’ in standardised tests. * Reasoning and explain using age appropriate mathematical vocabulary precisely (eg, if I know 3 x 7 = 21 I know 6 x 7 = 42 because double 3 is 6 so double 21 is 42). * Make connections between different aspects of the curriculum (eg, can find a missing vertex of a rectangle when given the other 3 vertices). * Independently use an efficient approach to problem solving. * Solve problems of greater complexity, where the approach is not immediately obvious. * Explain their thinking to others. * Record answers clearly in a variety of ways. * Eg, Sid and Sam share some money. Sid gets twice as much as Sam. Tick the coins which Sam might take. Is there more than one way of sharing the coins? |