**Maths Overview for the Summer Term**

|  |  |  |
| --- | --- | --- |
| **Reception** | **Year 1** | **Year 2** |
| Have a deep understanding of number to 10, including the composition of each number.  Verbally count beyond 20, recognising the pattern of the counting system.  Explore and represent patterns within numbers up to 10, including evens and odds, double facts and how quantities can be distributed equally.  Compare quantities up to 10 in different contexts, recognising when one quantity is greater than, less than or the same as the other quantity | Count, read and write numbers to 100 in numerals; count in multiples of twos, fives and tens  Solve one-step problems involving multiplication and division, by calculating the answer using concrete objects, pictorial representations and arrays with the support of the teacher  **Non statutory guidance: through grouping and sharing small quantities, pupils begin to understand: multiplication and division; doubling numbers and quantities; and finding simple fractions of objects, numbers and quantities**  Recognise, find and name a half as one of two equal parts of an object, shape or quantity  Recognise, find and name a quarter as one of four equal parts of an object, shape or quantity.  Describe position, direction and movement, including whole, half, quarter and three-quarter turns  **Non statutory guidance: Pupils use the language of position, direction and motion, including: left and right, top, middle and bottom, on top of, in front of, above, between, around, near, close and far, up and down, forwards and backwards, inside and outside.**  **Non-statutory guidance: Pupils practise counting (1, 2, 3…), ordering (for example, first, second, third…), and to indicate a quantity (for example, 3 apples, 2 centimetres), including solving simple concrete problems, until they are fluent.**  Identify and represent numbers using objects and pictorial representations including the number line, and use the language of: equal to, more than, less than (fewer), most, least.  Given a number, identify one more and one less  Recognise the place value of each digit in a two-digit number (tens, ones) (year 2)  Recognise and know the value of different denominations of coins and notes  Sequence events in chronological order using language [for example, before and after, next, first, today, yesterday, tomorrow, morning, afternoon and evening]  Recognise and use language relating to dates, including days of the week, weeks, months and years  Tell the time to the hour and half past the hour and draw the hands on a clock face to show these times | Recognise, find and name a quarter as 1 of 4 equal parts of an object, shape or quantity  Recognise, find and name a half as one of two equal parts of an object, shape or quantity (Year 1)  Recognise, find, name and write fractions 1 3, 1 4, 2 4 and 3 4 of a length, shape, set of objects or quantity  Write simple fractions for example, 1 2 of 6 = 3 and recognise the equivalence of 2 4 and 1 2  **Non-statutory guidance: Pupils should count in fractions up to 10, starting from any number and using the 1 2 and 2 4 equivalence on the number line (for example, 1 1 2, 1 2 4 (or 1 1 2), 1 3 4, 2**  Tell the time to the hour and half past the hour and draw the hands on a clock face to show these times (Year 1)  Tell and write the time to five minutes, including quarter past/to the hour and draw the hands on a clock face to show these times  Know the number of minutes in an hour and the number of hours in a day  Use place value and number facts to solve problems  Recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems  Solve problems with addition and subtraction: using concrete objects and pictorial representations, including those involving numbers, quantities and measures  Solve problems with addition and subtraction: applying their increasing knowledge of mental and written methods  Solve problems with addition and subtraction: using concrete objects and pictorial representations, including those involving numbers, quantities and measures  Solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts.  Use mathematical vocabulary to describe position, direction and movement, including movement in a straight line and distinguishing between rotation as a turn and in terms of right angles for quarter, half and three-quarter turns (clockwise and anti-clockwise)  Order and arrange combinations of mathematical objects in patterns and sequences  Interpret and construct simple pictograms, tally charts, block diagrams and simple tables  Ask and answer simple questions by counting the number of objects in each category and sorting the categories by quantity  Ask and answer questions about totalling and comparing categorical data |

|  |  |
| --- | --- |
| **Year 3** | **Year 4** |
| Add and subtract fractions with the same denominator within one whole [for example, 5 7 + 1 7 = 6 7  Solve problems that involve all of the above  Recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators  Add and subtract amounts of money to give change, using both £ and p in practical contexts  Tell and write the time from an analogue clock, including using Roman numerals from I to XII, and 12-hour and 24-hour clocks  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  Know the number of seconds in a minute and the number of days in each month, year and leap year  Compare durations of events [for example to calculate the time taken by particular events or tasks]  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  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  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 | Recognise and write decimal equivalents of any number of tenths or hundredths  Compare numbers with the same number of decimal places up 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 , 3 4  Estimate, compare and calculate different measures, including money in pounds and pence  Convert between different units of measure [for example, kilometre to metre; hour to minute]  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 2D shapes presented in different orientations  Complete a simple symmetric figure with respect to a specific line of symmetry  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  Describe positions on a 2D 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 |

|  |  |
| --- | --- |
| **Year 5** | **Year 6** |
| Know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles  Identify: – angles at a point and one whole turn (total 360°) – angles at a point on a straight line and 1 2 a turn (total 180°) – other multiples of 90°  Draw given angles, and measure them in degrees (°)  Use the properties of rectangles to deduce related facts and find missing lengths and angles  Distinguish between regular and irregular polygons based on reasoning about equal sides and angles  Identify horizontal and vertical lines and pairs of perpendicular and parallel lines (Year 3)  Identify 3D shapes, including cubes and other cuboids, from 2D representations  Describe positions on a 2D grid as coordinates in the first quadrant (Year 4)  Plot specified points and draw sides to complete a given polygon (Year 4)  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  Solve problems involving number up to three decimal places  Read, write, order and compare numbers with up to three decimal places  Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents  Interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through zero  Convert between different units of metric measure (for example, kilometre and metre; centimetre and metre; centimetre and millimetre; gram and kilogram; litre and millilitre)  Understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints  Solve problems involving converting between units of time  Use all four operations to solve problems involving measure [for example, length, mass, volume, money] using decimal notation, including scaling  Estimate volume [for example, using 1 cm3 blocks to build cuboids (including cubes)] and capacity [for example, using water] | Interpret and construct pie charts and line graphs and use these to solve problems  Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why  Use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy.  **Pupils connect their work on angles, fractions and percentages to the interpretation of pie charts [non-stat]**  Calculate and interpret the mean as an average  Recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles  Compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals, and regular polygons  Draw 2D shapes using given dimensions and angles  Illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius  Recognise, describe and build simple 3D shapes, including making nets  Describe positions on the full coordinate grid (all four quadrants)  Draw and translate simple shapes on the coordinate plane, and reflect them in the axes  Solve number and practical problems that involve all of the above  Use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy  Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why  Solve problems involving addition, subtraction, multiplication and division  Use their knowledge of the order of operations to carry out calculations involving the four operations  Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts  Solve problems involving unequal sharing and grouping using knowledge of fractions and multiples  Solve problems involving the relative sizes of two quantities where missing values can be found by using integer multiplication and division facts  Use, read, write and convert between standard units, converting measurements of length, mass, volume and time from a smaller unit of measure to a larger unit, and vice versa, using decimal notation to up to three decimal places  Recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles  Compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals, and regular polygons |