End of Year Expectations for Year 5 (Maths)

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| Year 5 Number and Place Value  |
| Number and Place Value  | Addition and Subtraction  | Multiplication and Division  | Fractions  |
| Sufficient evidence shows the ability to: PV1- Read, write, order and compare numbers to at least 1 000 000 and determine the value of each digit.PV2- Count forwards or backwards in steps of powers of 10 for any given number up to 1 000 000. PV3- Interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through zero. PV4- Round any number up to 1 000 000 to the nearest 10, 100, 1000, 10 000 and 100 000. PV5- Solve number problems and practical problems that involve all of the above. PV6- Read Roman numerals to 1000 (M) and recognise years written in Roman numerals.  | Sufficient evidence shows the ability to: AS1- Add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction). AS2- Add and subtract numbers mentally with increasingly large numbers. AS3- Use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy. AS4- Solve addition and subtraction multistep problems in contexts, deciding which operations and methods to use and why.   | Sufficient evidence shows the ability to: MD1- Identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers. MD2- Know and use the vocabulary of prime numbers, prime factors and composite (nonprime) numbers. MD3- Establish whether a number up to 100 is prime & recall prime numbers up to 19. MD4- Multiply numbers up to 4 digits by a one- or two-digit number using a formal written method, including long multiplication for two-digit numbers. MD5- Multiply and divide numbers mentally drawing upon known facts. MD6- 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 MD7- Multiply and divide whole numbers and those involving decimals by 10, 100 &1000. MD8- Recognise and use square numbers and cube numbers, and the notation for squared (2) and cubed (3). MD9- Solve problems involving multiplication and division including using their knowledge of factors and multiples, squares and cubes. MD10- Solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign. MD11- Solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates.  | Sufficient evidence shows the ability to: F1- Compare and order fractions whose denominators are all multiples of the same number. F2- Identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths. F3- Recognise mixed numbers and improper fractions and convert from one form to the other & write mathematical statements > 1 as a mixed number[2/5 + 4/5 = 6/5 = 1 1/5 ]. F4- Add and subtract fractions with the same denominator and denominators that are multiples of the same number. F5- Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams. F6- Read and write decimal numbers as fractions [for example, 0.71 = 71/100]. F7- Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents. F8- Round decimals with two decimal places to the nearest whole number and to one decimal place. F9- Read, write, order & compare numbers with up to three decimal places. F10- Solve problems involving number up to three decimal places. F11- Recognise the percent symbol (%) and understand that percent relates to ‘number of parts per hundred’, write percentages as a fraction with denominator 100, & as a decimal. F12- Solve problems which require knowing percent & decimal equivalents of 1/2, 1/4 , 1/5 , 2/5 , 4/5 and those fractions with a denominator of a multiple of 10 or 25.  |
| Year 5 Geometry and Measures  |
| Measures  | Geometry – Properties of Shapes  | Geometry – Position and Movement  | Statistics  |
| Sufficient evidence shows the ability to: M1- Convert between different units of metric measure (for example, kilometre and metre; centimetre and metre; centimetre and millimetre; gram and kilogram; litre & millilitre). M2- Understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints. M3- Measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres. M4- Calculate and compare the area of rectangles (including squares), and including using standard units, square centimetres (cm2 ) and square metres (m2 ) and estimate the area of irregular shapes. M5- Estimate volume [for example, using 1 cm3 blocks to build cuboids (including cubes)] and capacity [for example, using water]. M6- Solve problems involving converting between units of time. M7- Use all four operations to solve problems involving measure [for example, length, mass, volume, money] using decimal notation, including scaling.  | Sufficient evidence shows the ability to: G1- Identify 3-D shapes, including cubes and other cuboids, from 2-D representations. G2- Know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles. G3- Draw given angles, and measure them in degrees (˚). G4- Identify: angles at a point and one whole turn (total 360˚) angles at a point on a straight line & 1/2 a turn (total 180˚) and other multiples of 90˚. G5- 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.    | Sufficient evidence shows the ability to: G6- 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.   | Sufficient evidence shows the ability to: S1- Solve comparison, sum and difference problems using information presented in a line graph. S2- Complete, read and interpret information in tables, including timetables.   |