Year 5 Maths
Age Related Expectations

All children are assessed against the Age Related Expectations (ARE) within the different curriculum subjects. The ARE's are taken from the National Curriculum but are consolidated to reflect what *we* expect of a child. For example, three or four national curriculum targets might be summarised in one ARE. Judgements are generally based on a variety of different sources but will generally be a combination of on-going formative assessment in class, book work and formal summative testing.

Intro: Maths is comprised of a large number of strands although many of them are closely links. As a result, we will report our assessments under four main strands bringing together some of the smaller strands under broader headings.

	Key Performance Indicators	Age Related Expectations
Number and Place Value	- Reads, writes, orders and compares numbers to at least 1,000,000 and determines the value of each digit - count forwards or backwards in steps of powers of 10 for any given number up to1 000 000 - Interprets negative numbers in context, counts forwards and backwards with positive and negative whole numbers including through zero - round any number up to 1 000 000 to the nearest 10, 100, 1000, 10 000 and 100 000 - Recognise the place value of a digit and use this to add a power of 10, 100 or 100 to a number. For example, 5423 + 400. - Multiply and divide any number by 10 and 100.	By the end of Y5, a child should be fluent in formal written methods for addition and subtraction. Using a developing knowledge of formal methods of multiplication and division, a child should be able to solve problems including properties of numbers and arithmetic A child can: - make connections between fractions, decimals and percentages; - classify shapes with geometric properties and use the vocabulary needed to describe them; and - read, spell and pronounce mathematical vocabulary correctly.
Calculation	- Adds and subtracts whole numbers with more than four digits, including using formal written methods (column addition and subtraction) - Add and subtract numbers mentally with increasingly large numbers (eg 12,462 - 2,300 = 10,162) - Identifies multiples and factors including finding all factor pairs of a number and common factors of two number - know and use the vocabulary of prime numbers, prime factors and composite (nonprime) numbers - establish whether a number up to 100 is prime and recall prime numbers up to 19 - Use formal methods of division and multiplication with numbers up to 4 digits. (Multiplication 3d x 2d – 4d ÷ 1d) - multiply and divide numbers mentally drawing upon known facts - Solves problems involving multiplication and division including using a knowledge of factors and multiples, squares and cubes - Solves problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates	
Fractions	- Compares and orders fractions whose denominators are all multiples of the same number - identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths - recognise mixed numbers and improper fractions and convert from one form to theother - Reads and writes decimal numbers as fractions eg 0.71 = 71/100 - Reads, writes, orders and compares numbers with up to three decimal places - round decimals with two decimal places to the nearest whole number and to one decimal place - Solves problems which require knowing percentage and 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	

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Geometry and Measures	- Converts between different units of metric measure (eg kilometre and metre; centimetre and metre; centimetre and millimetre; gram and kilogram; litre and millilitre) - Measures and calculates the perimeter of composite rectilinear shapes in centimetres and metres - Calculates and compares the area of rectangles (including squares), and including using standard units, square centimetres (cm2) and square metres (m2) - estimate volume [for example, using 1 cm3 blocks to build cuboids (including cubes)] - and capacity [for example, using water] - Draws given angles and measures them in degrees (0) - 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 - use the properties of rectangles to deduce related facts and find missing lengths and angles - Distinguishes between regular and irregular polygons based on reasoning about equal sides and angles	
Statistics*	- Completes, reads and interprets information in tables, including timetables	

*These strands will not be formally reported on but might be discussed by the teacher at parents evening.

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