Tudor Grange Primary Academy
Perdiswell

MATHEMATICAL VOCABULARY ACROSS THE SCHOOL

Vocabulary per year group:
Each year group should build on and consolidate previous year groups

NUMBER AND PLACE VALUE

Rec	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Numeral – how to write a number using digits	**Numeral** – how to write a number using digits **Digit** – 24 is a 2-digit number. The 2 represents the tens, the 4 represents the ones **Compare** - equal (is the same as =), greater, more, less, fewer, **Order** **Sort** **Count – forwards, backwards,** **Represent** **Tens, Ones,** **One more, One less**	**Consecutive** – following in order 2,3,4 are consecutive numbers **Tens, ones, hundreds** **Place value** **Numeral / words** **Partition** **Estimate**	**Tens, ones, hundreds, thousands** **Roman numerals 1 – 12** **Whole number**	**Tens, ones, hundreds, thousands,** **Tenths, hundredths** **Whole number** **Decimal number** **Decimal point** **Round to the nearest** **10** **Round to the nearest 100** **Round to the nearest 1,000** **Negative numbers** – negative 3 is written -3 **Roman numerals to 100: I, V, X, L, C**	**Tens, ones, hundreds, thousands, ten thousands, hundred thousands, million** **Tenths, hundredths, Thousandths,** **Roman numerals to 1,000: I, V, X, L, C, D, M**	**Tens, ones, hundreds, thousands, ten thousands, hundred thousands, millions,** **Tenths, hundredths, Thousandths** **Decimal places**

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ADDITION

Rec	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Part – a number of parts added together makes a whole **Whole** – a whole is made up of a number of parts **Equal** – symbol (=) read 'equals' or 'is the same as'	**Numeral** – how to write a number using digits **Digit** – 24 is a 2-digit number. The 2 represents the tens, the 4 represents the ones **Sum** – the total of one or more additions **Total** – the sum found by adding **More** – to increase an amount **Numberbond** – 2 numbers that add together to make a total, e.g. 6+4 is a numberbond to 10. **Adding together** – *(aggregation)* - combining 2 parts together **Adding more** – *(augmentation)* - starting with an amount and increasing it by another amount	**Addend** – a number to be added to another **Commutative** – addition is commutative so 8 + 2 = 2 + 8 **Inverse** – addition and subtraction are inverse operations so 7 + 3 = 10 and 10 – 3 = 7 **Exchange** – when adding the ones in column addition if the total is greater than 10 we exchange 10 ones for a ten OR 10 tens for a hundred. **Bridging 10** – adding 2 numbers to make ten and then add on the rest **Column addition** – where the digits are placed in columns to add the numbers together	**Compensation** – a mental strategy where one number is rounded to make the calculation easier and then adjusted e.g. 56 + 38 is treated as 56 + 40 and then 2 is subtracted to compensate **Estimate** **Increase**	Consolidation of terms learnt in previous year groups	**Integer** – any of the positive or negative whole numbers **Positive** – any number larger than zero **Negative** – any number smaller than zero	Consolidation of terms learnt in all previous year groups

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SUBTRACTION

Rec	Year 1	Year 2	Year 3	Year 4, 5 & 6
Whole – a whole subtract any number of parts equals a part **Take away** – to remove a number of items from a group	**Subtract** – to carry out the process of subtraction **Minus** – a name for the symbol '-' **Less** – to decrease an amount **Counting back** **Finding the difference**	**Inverse** – addition and subtraction are inverse operations so 10 - 4 = 6 and 6 + 4 = 10 (it is NOT commutative) **Exchange** – when the number to subtract is larger than the number we are subtracting from we exchange a ten into ten ones. **Difference** – we subtract to find the difference	**Subtrahend** – a number to be subtracted from another **Minuend** – a number from which another is to be subtracted Minuend – Subtrahend = Difference **Compensation** – a mental strategy where one number is rounded to make the calculation easier and then adjusted e.g. 56 - 38 is treated as 56 - 40 and then 2 is added to compensate **Efficient** subtraction (Y4) – instead of 4,000 – 2,124 do 3,999 – 2,123 **Decrease**	Consolidation of terms learnt in previous year groups

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MULTIPLICATION

Rec	Year 1	Year 2	Year 3	Year 4	Year 5 & 6
	Groups of, sets of, lots of **Equal groups** **Counting patterns (2s, 5s, 10s)** **Doubles**	**Multiply** – to carry out the process of multiplication **Multiple** – a number in a times table e.g. the multiples of 2 are 2,4,6 etc. **Groups of, lots of, sets of, times, multiplied by** – different ways to say the symbol "x" **Array** – an ordered collection of objects in rows and columns **Commutative** – knowing 3 x 5 will get the same answer as 5 x 3 **Even** – numbers in the 2 times table **Odd** – numbers not in the 2 times tables **Pairs**	**Factor** – factor x factor = product **Product** – the result of multiplying 2 numbers **Multiply** **Scaling** – to enlarge a number, quantity or measurement by an amount	**Factor** – factor x factor = product e.g. 1,2,3,4,6,12 are factors of 12 **Factor pairs** - A factor pair is 2 factors multiplied together to make a given product **Short multiplication** – a method used to multiply 2 or more digits by a 1 digit number, using columns	**Prime number** – A whole number greater than 1 that only has two factors, itself and 1. **Composite** – a non prime number. **Common factor** – a number which is a factor of 2 or more other numbers e.g. 3 is a common factor of 9 and 30, 7 is a common factor of 14 and 21. **Prime factor** – the factors of a number that are prime e.g. 2 and 3 are the prime factors of 12 **Common multiple** – the smallest positive number that is a **multiple** of two or more numbers e.g. 24 is a common multiple of 4,6,8 etc. **Square numbers** **Cube numbers**

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DIVISION

Rec & Year 1

Equal – the same
Sharing – share equally a number of objects into a specified number of groups.
Divide – to carry out the process of division
Make equal groups – grouping
Make equal groups - sharing

Year 2

Sharing – sharing equally between
Grouping - put into groups of
Divided by – sharing or grouping
Inverse – multiplication and division are inverse operations so 10 ÷ 2 = 5 and 5 x 2 =10 (it is NOT commutative)
Even – numbers that can be divided by 2
Odd – numbers that will have a remainder of 1 when divided by 2

Year 3, 4, 5 and 6

Dividend – the number that is being divided into equal parts
Divisor – for sharing: the number that it is being shared between. For grouping: the number in each group In 15 ÷ 3, 15 is the dividend and 3 is the divisor
Quotient – the result of a division
dividend ÷ divisor = quotient
Divisible – A whole number is divisible by another if there is no remainder after division
Remainder – the amount remaining after division
e.g. 29 ÷ 7 = 4 r1
Scaling – to reduce a number, quantity or measurement by an amount
Short division – a method used to divide 2 or more digits by a 1 digit number

Y6 – Long division
Orders of operations – brackets, indices ^{2} $\sqrt[3]{}$, multiplication and division, addition and subtraction

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FRACTIONS

Rec	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
	Equal parts **Whole** **Half** **Quarter**	**Whole** **Half** $\frac{1}{2}$ **Quarters** $\frac{1}{4}\ \frac{2}{4}\ \frac{3}{4}$ **Third** $\frac{1}{3}\ \frac{2}{3}$ Unit fraction Non-unit fraction Equivalent fraction **numerator** **denominator**	Whole, part Halves, quarters, thirds **Tenths** **Unit fraction** **Non-unit fraction**	Tenths Hundredths **Proper fractions** **Improper fraction** **Mixed number**	Improper fraction Mixed number **Thousandths** **Percentage** – out of 100 Equivalent fractions, decimals and percentages	Equivalent fractions **Simplify** **Highest common factor (HCF)** **Lowest common multiple (LCM)** **Percentage of an amount**

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MEASURES

Rec	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Before, after First, next Long, longer Short, shorter Tall, taller	**Length** Height Compare Cm (centimetres) **Weight** Mass Heavy/Heavier / heaviest Light / Lighter / lightest Equal / Same **Capacity** (the volume of a material held in a container) Volume (the space taken up inside a container) Full, nearly full, Empty, nearly empty Container **Time** – before, after, morning, afternoon, evening Today, yesterday, tomorrow Days of the week Months of the year O'clock – minute hand pointing to the 12 Minute hand – longer	**Length** – cm, m, **Mass** – g, kg, **Volume** – ml, litres **Temperature** - °C **Time**: Analogue clock Minute hand Hour hand O'clock, half past Quarter past, quarter to, 5 minutes past etc Seconds, minutes, hours	**Length** – **mm** Equivalent lengths **Perimeter** – distance around the edge of a closed shape **Intervals** **Time** – to the minute AM / PM 24 hour clock Duration of time **Midnight** **Midday - noon**	**Length** – **km** **Rectilinear shape** – a rectilinear shape can be divided into rectangles in order to find the area **Area** – the amount of space within a closed 2D shape **Time** – to the minute AM / PM 24 hour clock Duration of time Analogue Digital	Metric measures Imperial measures Timetables Area of a rectangles Area of compound shapes	Area of a triangle Area of a parallelogram Volume of a cube/cuboid

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	hand Hour hand – shorter hand Half past – minute hand pointing to the 6					

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GEOMETRY

Rec	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
	3D shapes – cube, cuboid, cylinder, cone, pyramid, sphere, Faces Curved surface Roll Stack **2D shapes – square, rectangle, circle, triangle** Sides – curved, straight Patter n Next Repeat	**2D shapes – as Y1 plus pentagon, hexagon, octagon,** Sides – curved, straight **Regular, irregular** **Vertex/Vertices** – where 2 lines meet at a point **Lines of symmetry** **Symmetrical** **3D shapes – as Y1 plus triangular prism, tetrahedron, square based pyramid,** Flat faces Curved surfaces **Edge** – where 2 faces or a face and a curved surface meet **Vertex/vertices** – where 2 or more edges meet **Apex** – point at the top of a cone or pyramid	**Right angle** **Acute angle** –less than a right angle **Obtuse angle** – more than a right angle Horizontal Vertical Parallel Perpendicular **Prism** – same shape all the way through **Pyramid** – tapers to a point Quadrilateral Polygon Carroll diagram Venn diagram	**Right angles** are 90 degrees (°) **Acute angles** are less than 90° **Obtuse angles** are more than 90° but less than 180° **Triangles**: Right angled, Equilateral, Isosceles, Scalene **Quadrilaterals**: squares, rectangles, parallelogram, trapezium, rhombus, kite, Parallel lines, perpendicular lines, Symmetrical figure	**Protractor** **Straight line** **Around a point** **First Quadrant** **Translation** **Co-ordinates** **Reflection**	Circle: **Centre** – the middle point, **radius** – the distance from the centre to the edge of a circle, **diameter** – the distance from one edge to another going through the centre, **circumference** – the distance around a circle (its perimeter) **Four quadrants** **Co-ordinates – positive and negative** **Translation** **Transformation** **Vertically opposite angles** Angles in triangles Angles in quadrilaterals **Nets** of 3D shapes

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		Turn Clockwise Anti-clockwise Direction Position Right angle Orientation				

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STATISTICS

Rec	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
		Pictogram Tally chart Block diagram Total, altogether More/less/fewer/ difference	Keys Symbols Data Horizontal / vertical x-axis, y-axis Bar chart Scale Tables	Line graphs Continuous data	Consolidation of Y2 to Y4	Pie charts Segments Mean Average