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**Year 3 – Discrete Mathematical Knowledge**

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| **Autumn 1** | **Autumn 2** | **Spring 1** | **Spring 2** | **Summer 1** | **Summer 2** |
| Know that ten 10s make a hundred and a hundred 1s makes a hundred.Count in tens to and above 100.Know the value of numbers to hundredsFind 10 and 100 more than a given number Be able to count in 50s using knowledge of 5 times tables Say if any number to 100 is odd or evenBe able to identify parts and wholes to write addition and subtraction fact families. | Know the following multiplication tables in and out of order: 2x 3x 4x 5x 8x 10x Know the difference between grouping and sharing Doubling numbers to 50Know the terms arrays and repeated addition Use arrays and repeated addition to write multiplication and division fact familiesBe able to partition numbers to 100Know that a remainder has to be less than the divisor  | Know the value of coins and notesKnow: 100p = £1; 2 x 50p =£1; 5 x 20p =£1; 10 x 10p =£1; 20 x 5p = £1; 50 x2p = £1Know how to convert pennies to pounds e.g. how many pounds is 600pKnow the value of each symbol used and what it means when half a symbol is usedHalving numbers to 50 | Know abbreviations: mm, cm, m, km, mg, g, kg, ml, l Know the equivalent measures: 10mm=1cm, 100cm = 1m, 1000mm = 1m, 500m = ½ km, 1000mg = 1g, 1000g = 1kg, 500g 1/2 kg, 1000ml = 1l, 500ml = ½ lWhat is perimeter?Know how to calculate perimeter.Know what a unit and non-unit fraction is.Know what the numerator and denominator represent.Know how many of a given fraction equals 1 whole Know tenths as decimals Convert decimals to fractions: 0.5 = 1/2 ; 0.25 = 1/4 ; 0.75 = ¾   | Know Roman Numerals to 20 Know: there are 365 days in a year; 12 months in a year; 366 days in a leap year; 7 days in a week;Leap years happen every 4 years; There are 5 days in a school week; 24 hours in a day; 60 seconds in one minute; 60 minutes in one hour and 30 minutes in ½ hour Know the order and amount of days in each month Know the terms noon, midday, midnight Know how to convert analogue to digital timesKnow how to tell the time to the nearest 5 minutes  | To name, recognise and know the properties of all the 2D shapes from years 1 and 2, both regular and irregular forms, including: circle, triangle, rectangle, square, pentagon, hexagon , octagonName, recognise and give properties (faces, edges, vertices and curved faces) for all the 3D shapes from years 1 and 2 including: cube, cuboid, sphere, square based pyramid, cone To identify vertical lines of symmetryKnow positional terms N,E,S,WRecognise that a right angle is a quarter turn, 2 right angles make a half turn, 3 right angles make three quarters of a turn and 4 right angles make a complete turn.Know what an obtuse and acute angles areKnow what the terms horizontal, vertical, parallel and perpendicular mean. |