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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 hundreds  Find 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 even  Be 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 50  Know the terms arrays and repeated addition  Use arrays and repeated addition to write multiplication and division fact families  Be able to partition numbers to 100  Know that a remainder has to be less than the divisor | Know the value of coins and notes  Know: 100p = £1; 2 x 50p =£1; 5 x 20p =£1; 10 x 10p =£1; 20 x 5p = £1; 50 x2p = £1  Know how to convert pennies to pounds e.g. how many pounds is 600p  Know the value of each symbol used and what it means when half a symbol is used  Halving 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 l  What 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 times  Know 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 , octagon  Name, 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 symmetry  Know positional terms N,E,S,W  Recognise 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 are  Know what the terms horizontal, vertical, parallel and perpendicular mean. |