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**Year 4 – Discrete Mathematical Knowledge**

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| **Autumn 1** | **Autumn 2** | **Spring 1** | **Spring 2** | **Summer 1** | **Summer 2** |
| Count in 6, 7, 9, 25 and 1000  Recall addition and subtraction facts for each number to 20 e.g. 5+4 = 9, 6+3=9, 7+2=9  Recall addition and subtraction pairs for 10, 20, 100 and 1000.  Recall doubles and corresponding halves of numbers to 50.  Place value - Thousands, hundreds, tens and ones  Roman numerals to  100 (I -C)  Recall multiplication tables and corresponding division facts (4s,6s,8s) | How many mm in a cm, cm in a m, m in a km – also using ½ ¼ and ¾  As above but for capacity and weight – ml, l, g, kg  What is the perimeter?  How do you work out the perimeter of a rectangle?  What does sharing mean?  What does grouping mean?  Divide and multiply by 1 and 0  Recall multiplication tables and corresponding division facts (6s,7s,9s) | Children are introduced to the ‘Associative Law’ to multiply  3 numbers.  Children know that a factor is a whole number that multiplies  by another number to make a product e.g. 3 × 5 = 15,  factor × factor = product.  Factor pairs e.g. 2 and 4, 1 and 8  Know that area is the amount space is taken up by a  2D shape or surface.  Recall ALL multiplication tables and corresponding division facts | Know what a fraction is.  Recap the meaning of numerator and denominator, non unit and unit Fractions, Improper fractions and mixed number fractions  How many cm in a m, m in a km  Recall multiplication tables and corresponding division facts  Know that ten hundredths are equivalent to one tenth  Know tenths and hundredths as decimals.  Know that one hundredth is one whole split into how many equal parts? How many hundredths can I exchange one tenth for? How many hundredths are equivalent to 5 tenths?  How many pennies in a pound and how 10p in a pound e.g. how many 10p’s in £3.40, how many 20p’s in £2, etc. | Recap number bonds to 10 and 100  How many tenths make one whole?  How many hundredths make one tenth?  How many hundredths make one whole?  If I have \_\_\_ hundredths, how many more do I need to make one whole?  Understand the terms ascending and descending.  What are equivalent fractions?  Know fractions and their decimal equivalents.  How many pennies in pound and use this knowledge to convert between pounds and pence.  Minutes in a hour  Minutes to seconds  Hours in a day  Years to months  Days in each month  Weeks to days e.g. how many days in 3 weeks? 6 weeks? Etc. | Which is the x axis and y axis on a chart?  How many degrees in a right angle, obtuse angle, acute angle  What is a polygon?  Names and identify properties of scalene, isosceles and equilateral triangles  Name and identify properties of trapezium, square, rhombus, rectangle and parallelogram.  Definition of the terms – parallel, perpendicular, symmetrical  Rule when writing co-ordinates |