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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 1000Recall addition and subtraction facts for each number to 20 e.g. 5+4 = 9, 6+3=9, 7+2=9Recall 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 onesRoman 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, kgWhat 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 multiply3 numbers. Children know that a factor is a whole number that multipliesby another number to make a product e.g. 3 × 5 = 15,factor × factor = product.Factor pairs e.g. 2 and 4, 1 and 8Know that area is the amount space is taken up by a2D 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 kmRecall multiplication tables and corresponding division factsKnow that ten hundredths are equivalent to one tenthKnow 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 100How 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 hourMinutes to secondsHours in a dayYears to monthsDays 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 trianglesName and identify properties of trapezium, square, rhombus, rectangle and parallelogram.Definition of the terms – parallel, perpendicular, symmetrical Rule when writing co-ordinates   |