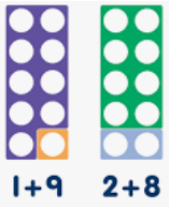
Maths Progression Document Addition and Subtraction EYFS / KS1

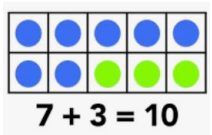
	Reception Vocabulary add, more, and, make, sum, total, altogether double, one more, two more … ten more how many more to make …?, how many more is … than …? how much more is …? take away, how many are left/left over? , how many have gone? one less, two less, ten less … how many fewer is … than …? , how much less is …? , difference between	***Year 1 Vocabulary*** Addition, near double, half, halve Subtract, equals, is the same as, number bonds/pairs, missing number	***Year 2 Vocabulary*** One hundred more, one hundred less, facts, tens boundary, exchange, carry over, bridge through 10
Year group	***Reception***	***Year 1***	***Year 2***
Key skills	• *Sort objects into groups for different criteria* • *Find one more and one less than a given number to first 5, then 10 then up to 20.* • *Know number bonds to 5.* • *Combine 2 groups to find the whole* • *Find number bonds to 10 using a ten frame and/or numicon* • *Explore number bonds to 10 using part whole model.* • *Add by counting on.* • *Subtract by counting back*	• ***Mentally add or subtract 2 from any number up to 20.*** • ***Mentally double numbers up to double 5.*** • ***Mentally calculate near doubles up to 5 +6 by doubling and adding or subtracting 1.*** • ***Mentally add 10 to a single digit number.*** • ***Partition single digit numbers into all possibilities e.g. 1+5, 2+4, 3+3 etc.*** • *Represent and use number bonds and related subtraction facts first within 10 then within 20.* • *Read, write and interpret mathematical statements using +, - and = symbols.* • *Add and subtract one digit numbers including zero first to 10 then to 20.* • *Solve one step problems involving addition and subtraction using concrete and pictorial images and missing number problems.*	• ***Mentally double numbers to double 10 and find near doubles by doubling and adding/subtracting 1 up to 10 + 11.*** • ***Bridge through 10 when adding and subtracting*** • *Recall and use addition and subtraction facts to 20 fluently and derive and use related facts up to 100.* • *Add and subtract numbers using concrete, pictorial and mentally including a 2 digit number and ones, a 2 digit number and tens, two 2 digit numbers and 3 one digit numbers.* • *Show that the addition of 2 numbers can be done in any order but subtraction can not.* • *Record and use the inverse of addition and subtraction and use this to check calculations and solve missing number questions.* • *Solve problems involving addition and subtraction using concrete, pictorial, mental and written methods including those involving numbers, quantities and measures.*

Maths Progression Document Addition and Subtraction EYFS / KS1

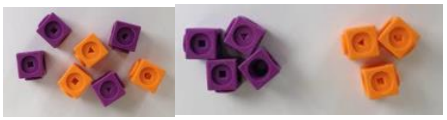
What it looks like in models and images. Note – this is not exhaustive, guidance should be taken from our calculation policy as well as WR Maths small steps guidance.

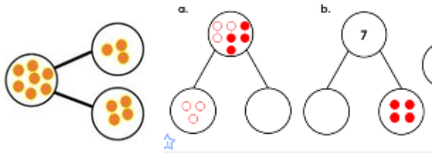
Use 5 and ten frame for addition and subtraction and number bonds. Numicon is also a good visual.



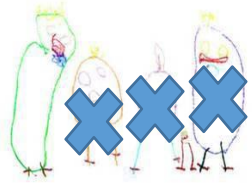


Combining 2 groups to find a total

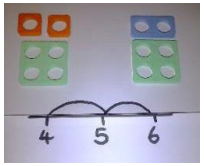




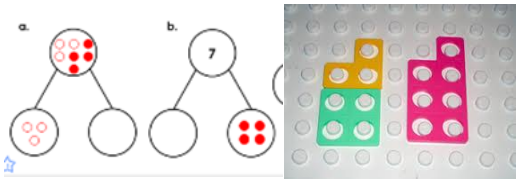
Subtraction – after taking away 'real' objects children will draw images and cross out.



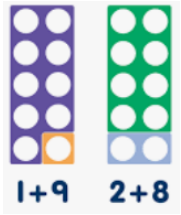
Number track rather than number line is clearer for young children when counting on and back

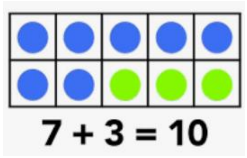


.Partitioning use part whole model, numicon, or other concrete apparatus.

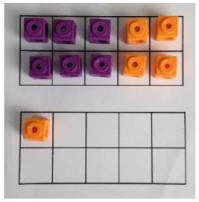


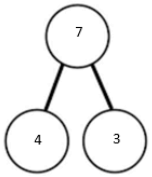
Ten frames and numicon for bonds.

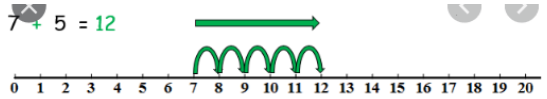




When adding and subtracting beyond 10 encourage to use ten frames, number lines, part whole models and concrete or pictorial objects.



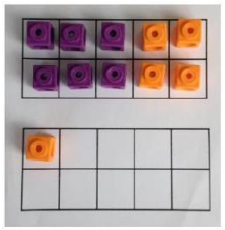




Bridge through 10 when adding and subtracting by using ten frames and counters/cubes or using numicon:

6 + 5 becomes 6 + 4 = 10 10 + 1 = 11

This then moves on to missing number questions worked out in the same way 5 + _ = 12



Use diennes / base 10 to introduce adding and subtracting. Including where exchange is required, move to pictorial representation of tens and ones. Then abstract.