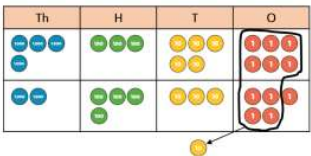
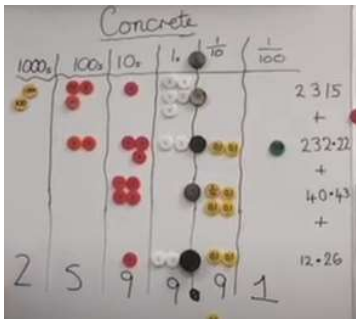
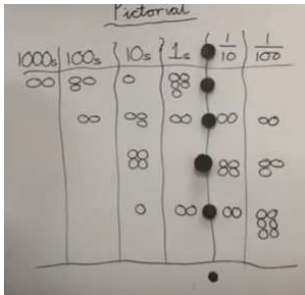
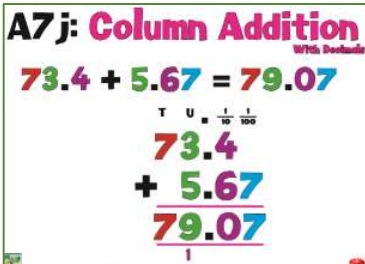
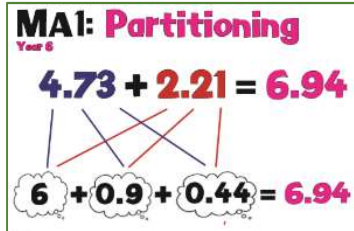


Calculation Policy

Year 5 and 6 Addition

	Mental Strategies	Concrete	Pictorial	Abstract	Vocabulary	Models, Images and resources
Year 5 And Year 6	Y5 Add numbers mentally with increasingly large numbers to aid fluency e.g. $12\ 462 + 2\ 300 = 14\ 762$ Use rounding to check answers and determine, levels of accuracy Add a pair of two or three-digit multiples of 10, e.g. $30 + 80$, $35 + 36$ and $350 + 360$ Add a near multiple of 10, 100 and 1000 to any two-digit, three-digit number or four-digit number, e.g. $235 + 198$	Use of place value counters to add up to 6 digits  	Use of place value grid 	Varied sized numbers up to millions or 3DP added using compact method. Includes measures and money Decimals - same and different number of digits A7j: Column Addition With Decimals $73.4 + 5.67 = 79.07$  MA1: Partitioning Year 6 $4.73 + 2.21 = 6.94$  A7e: Column Addition $787567 + 446278 = 1233845$ 	Add Sum More than Total Altogether Plus Partition into tens and ones Empty number line Count on Carry ten Carry 100 Two digit three digit Crossing tens boundary	100 square Number lines Number tracks Bead strings (for children) Bead bar Tens Frame Numicon Place Value Disks Cuisenaire Base hundreds tens and ones Arrow Cards

Add pairs of decimal fractions each with units and tenths, e.g. $5.7 + 2.5$, $6.3 + 4.8$

Y6

Calculate mentally with increasingly large numbers and more complex calculations. Including Counting on in multiples

MA2a: Counting On
Year 6
 $43,826 + 30,000 = 73,826$
+30,000
43,826 73,826

Addition facts for multiples of 10 to 1000 and decimal numbers with one decimal place,

e.g.

$$650 + \underline{\quad} = 930$$

$$\underline{\quad} + 1.4 = 2.5$$

MA5: Round & Adjust
Year 6
 $45.2 + 49.9 = 95.1$
 $45.2 + 50 - 0.1$
 $95.2 - 0.1 = 95.1$

MA4: Double & Adjust
Year 6
 $4.5 + 4.7 = 9.2$
 $4.5 + 4.5 + 0.2$
 $9 + 0.2 = 9.2$

Know the related vocabulary for addition

See the images from Y4

Compact columnar addition

Add numbers with up to 4 digits using the efficient written column method Practise with increasingly large numbers to aid fluency.

Estimate and use inverse operations to check answers

Solve addition two-step problems in contexts, deciding which operations and methods to use and why. Include problems involving decimals in money or measures eg. $6.3\text{m} + 3.7\text{m} = 10\text{m}$

Practise addition for larger numbers, using the efficient written methods of columnar addition.

Where there are more than 2 addends in a column –add up the digits efficiently

$$416 + 223 + 184 = 823$$

$$15 + 57 + 27 = 99$$

$$172 + 234 + 54 = 460$$

Inverse

addend

Useful IWB links for manipulatives

<https://www.coolmath4kids.com/manipulatives/base-ten-blocks>
<https://mathsbot.com/manipulatives/placeValueCounters>
<https://mathsbot.com/manipulatives/bar>
<https://classroomsecrets.co.uk/free-year-1-part-whole-model-iwb-addition-and-subtraction-activity/>
<https://www.nctm.org/Classroom-Resources/Illuminations/Interactives/Ten-Frame/>
<http://www.ictgames.com/mobilePage/tenFrame/index.html>