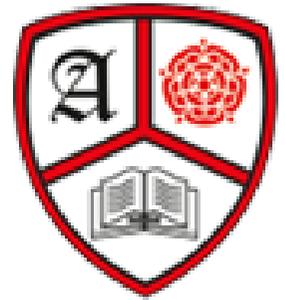


Anderton Primary School

Maths Mastery Calculation Policy

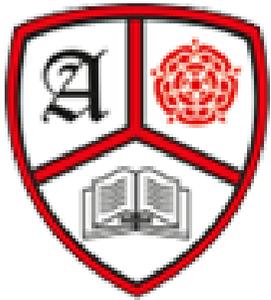


Date reviewed:

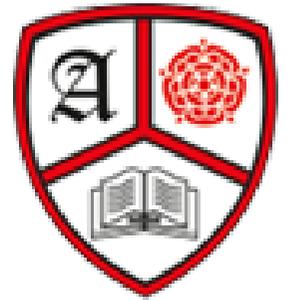
Date for next review:

Signed :

Signed :



Year 4-6 Addition



Objective ,Strategy
Key Vocabulary

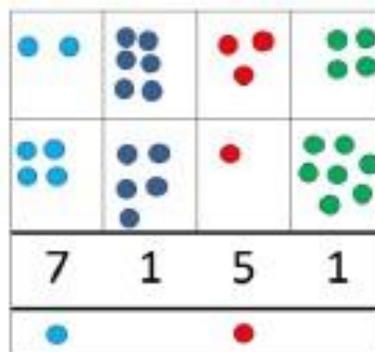
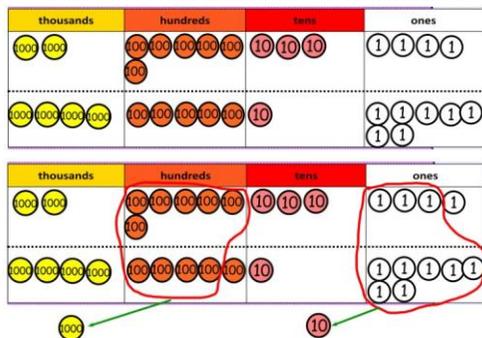
Concrete

Pictorial

Abstract

Y4—add numbers with up to 4 digits

Children continue to use dienes or pv counters to add, exchanging ten ones for a ten and ten tens for a hundred and ten hundreds for a thousand.



Draw representations using pv grid.

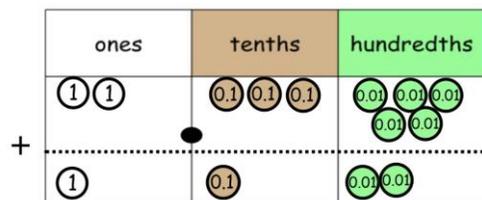
$$\begin{array}{r} 2634 \\ + 4517 \\ \hline 7141 \\ \hline 1 \quad 1 \end{array}$$

Continue from previous work to carry ones, tens and hundreds. Relate to money and measures.

Y5—add numbers with more than 4 digits.

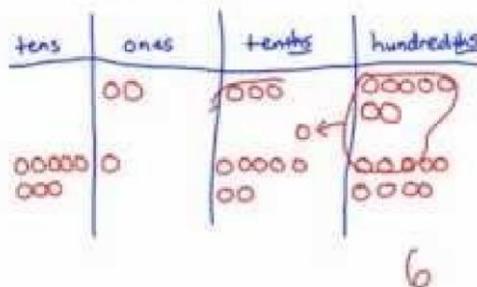
Add decimals with 2 decimal places, including money.

As year 4



Introduce decimal place value counters

$$2.37 + 81.79$$



$$\begin{array}{r} 22,634 \\ + 15,673 \\ \hline 38,307 \\ \hline 1 \quad 1 \end{array} \quad \begin{array}{r} \text{£ } 127.67 \\ + \text{£ } 38.45 \\ \hline \text{£ } 166.12 \\ \hline 1 \quad 1 \quad 1 \end{array}$$

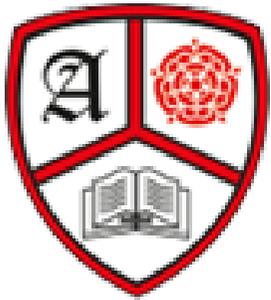
Y6—add several numbers of increasing complexity

Including adding money, measure and decimals with different numbers of decimal points.

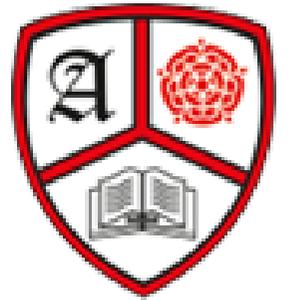
Some children may need to use manipulatives and/or representations for longer. See year 5

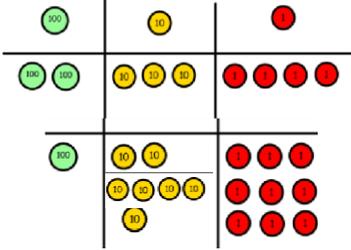
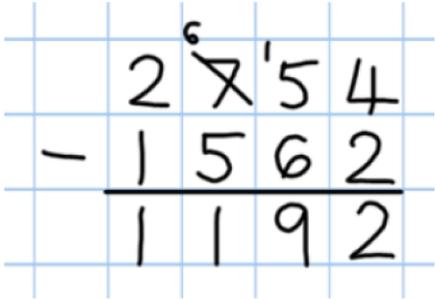
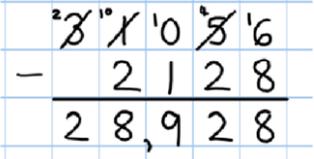
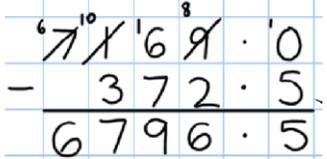
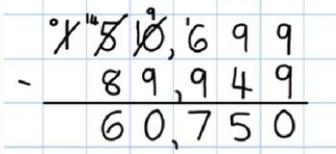
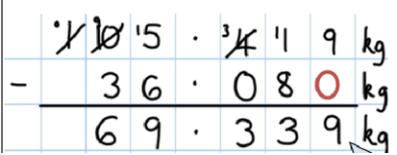
$$\begin{array}{r} 89,472 \\ 63,673 \\ + 3,016 \\ \hline 156,161 \\ \hline 1 \quad 1 \quad 1 \quad 1 \end{array} \quad \begin{array}{r} 1.437 \\ 0.600 \\ + 3.020 \\ \hline 4.057 \\ \hline 1 \end{array}$$

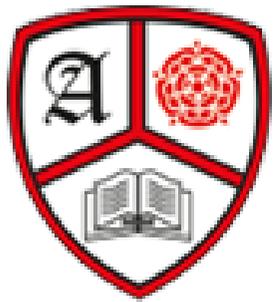
Insert zeros for place holders.



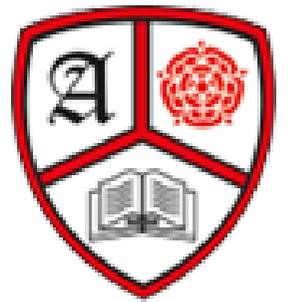
Year 4 – 6 Subtraction

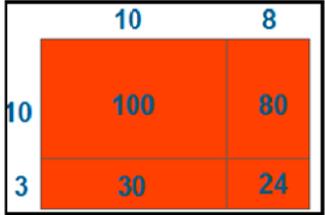
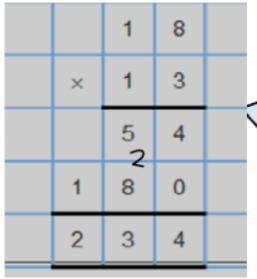


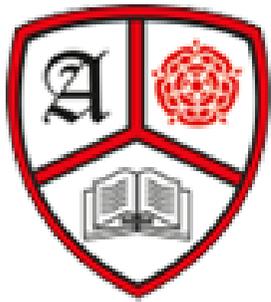
Objective & Strategy	Concrete	Pictorial	Abstract
Subtracting tens and ones Year 4 subtract with up to 4 digits. <i>Introduce decimal subtraction through context of money</i>	$234 - 179$  <p>Model process of exchange using Numicon, base ten and then move to PV counters.</p>	Children to draw pv counters and show their exchange—see Y3	 <p>Use the phrase 'take and make' for exchange</p>
Year 5- Subtract with at least 4 digits, including money and measures. <i>Subtract with decimal values, including mixtures of integers and decimals and aligning the decimal point.</i>	As Year 4	Children to draw pv counters and show their exchange—see Y3	 <p>Use zeros for placeholders.</p> 
Year 6—Subtract with increasingly large and more complex numbers and decimal values.			 



Year 5 Multiplication



Objective & Strategy	Concrete	Pictorial	Abstract
<p>Multiply 3 and 4 digits x 1 digit.</p>	<p>Children may continue to be supported by place value counters at the stage of multiplication. This initially done where there is no regrouping.</p> <p>3024 x 3</p>  <p>900 + 0 + 60 +</p>	<p>Children may continue to draw their understanding using place value grids.</p>	$\begin{array}{r} 3024 \\ \times \quad 3 \\ \hline 9072 \\ 1 \end{array}$
<p>Multiply up to 4 digits by 2 digits</p>	<p>Manipulatives may still be used with the corresponding long multiplication modelled alongside.</p> <p>Begin with teen number x teen number.</p> <p>Progress to any 2–4 digit number x 2 digit.</p>		 <p>18 x 3 on the first row</p> <p>(8 x 3 = 24, carrying the 2 for 20, then 1 x 3)</p> <p>18 x 10 on the 2nd row. Show multiplying by 10 by putting zero in units first</p> $\begin{array}{r} \\ \times \\ \hline 1 2 4 31 \times 4 \\ 6 2 0 31 \times 20 \\ \hline 7 4 4 \end{array}$



Year 5 Division

