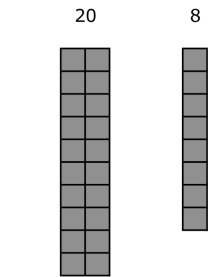
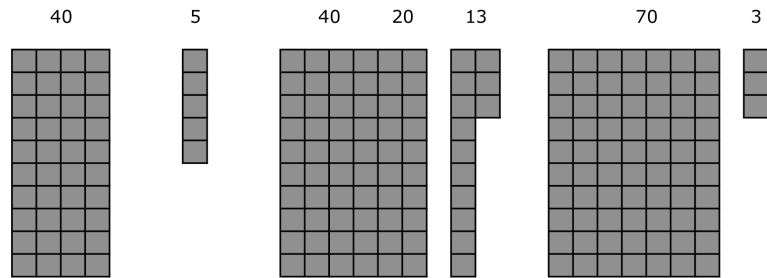


DAY	OBJECTIVES	TEACHING ACTIVITIES (20 mins)	INDEPENDENT WORK (20 mins)	Plenary / HOMEWORK (10 mins)	Success Criteria Must/should/could <i>I can:</i>	Evaluation
	<p>Mental: Add or subtract mentally combinations of one-digit and two-digit numbers</p> <p>Main: Develop and use written methods to record, support or explain addition of two-digit and three-digit numbers</p> <p>A2003</p>	<p>Mental: Revise addition by partitioning horizontally with three questions: one with 2-digit numbers, one with 3-digit numbers and one with decimals to one place. Revise strategy of not changing the first number and partitioning the second number e.g. $45 + 22$ $45 + 20 = 65 + 2 = 67$</p> <p>Main: Introducing vertical addition Explain how this is useful because it allows us to line-up the hundreds, tens and units and do calculations with larger numbers and decimals. Quick model of how to do 1 question with these layouts: $372 + 247$:</p> <ul style="list-style-type: none"> • $\begin{array}{r} 300 + 70 + 2 \\ + 200 + 40 + 7 \\ \hline 500 + 110 + 9 = 619 \end{array}$ • $\begin{array}{r} 372 \\ +247 \\ \hline 9 \\ 110 \\ \hline 500 \\ \hline 619 \end{array}$ • $\begin{array}{r} 372 \\ +247 \\ \hline 619 \end{array}$ <p>I will use all 3 methods for each question on the IWB so the children still think of the numbers in the formal algorithm as hundreds, tens and units and not as separate numbers Some children will have been taught column addition already at home; if they think they know how to do column addition with the formal layout they can start on the HA work without listening to me anymore. With HA, who will be using the formal algorithm only, first few questions involve adding numbers with different numbers of digits e.g. $7 + 912$ as this will check if they understand how to align the numbers i.e. with the 7 above the 2. HA questions will also check that they understand what to do when a column adds up to 10 e.g. with $238 + 465$ the 3 + the 6 + the carried 1 will give 10, so you put a 0 in the tens column and carry the 1 again: $\begin{array}{r} 238 \\ + 465 \\ \hline 703 \end{array}$ For those who do not think they already know how to do column addition correctly, do some more examples with the first layout only. Represent the calculation using tens and units blocks e.g. $45 + 28$ below – when the units column gets to more than ten, there isn't enough space</p>	<p>LA – use expanded vertical partitioning (1st example) only</p> <p>MA – use 1st layout for 4 questions, 2nd layout for 4 questions and 3rd layout for 4 questions</p> <p>HA – use formal layout only</p> <p>G + T – use formal layout with decimals places</p>	<p>Give children an addition to do on their pupil WB, which requires carrying. As they do it they need to explain to their partner what they are doing. Emphasise the need to use the language of carrying ten or carrying a hundred, not carrying the 1 when it is actually a 10 or 100. This should help reinforce their understanding of the process. Children swap over.</p>	<p>M: partition numbers vertically to add</p> <p>S: use the formal vertical algorithm to add</p> <p>C: add with numbers with decimal places</p>	

in the units column so the ten needs to 'move next door' to the tens



LA start work using first expanded layout only and representing calculations with tens and unit blocks.

For MA do some more examples with all 3 layouts, to help them see how the first 2 methods are contracted down in the formal algorithm.

Emphasise how with vertical addition you need to start on the right-hand side, not on the left hand side as you do with horizontal partitioning

Go through answers with those doing HA work and they do any corrections before moving on to column addition with decimals –

emphasise it is the same thing, the key point is to put the numbers in the right columns