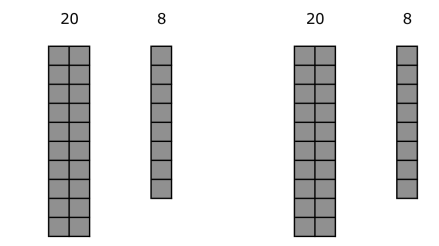
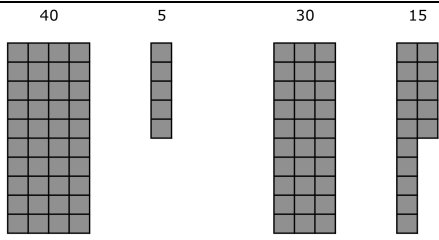


DAY	OBJECTIVES	TEACHING ACTIVITIES (20 mins)	INDEPENDENT WORK (20 mins)	Plenary / HOMEWORK (10 mins)	Success Criteria Must/should/could <i>I can:</i>	Evaluation
	<p>Mental: Add or subtract mentally combinations of one-digit and two-digit numbers</p> <p>Main: Develop and use written methods to record, support or explain subtraction of two-digit and three-digit numbers</p> <p>A2004</p>	<p>Mental: Revise subtraction by partitioning horizontally, with three questions: one with 2-digit numbers, one with 3-digit number and one with decimals to one place. Revise strategy of not changing the first number and partitioning the second number e.g. $45 - 22$ $45 - 20 = 25 - 2 = 23$</p> <p>Main: Introduce vertical subtraction Model how to do the questions with this layout: $448 - 267$:</p> <ul style="list-style-type: none"> • $\begin{array}{r} 300 + 140 \\ 400 + 40 + 8 \\ - 200 + 60 + 7 \\ \hline 100 + 80 + 1 = 181 \end{array}$ • $\begin{array}{r} 4148 \\ - 267 \\ \hline 181 \end{array}$ <p>Emphasise how in the expanded version the addition signs in between the numbers do not show what type of calculation you are doing – this is indicated by the subtraction sign Model how to do vertical subtraction with top numbers that have 0s in them e.g. $807 - 645$ I will use both 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 subtraction already at home; if they think they know how to do column subtraction 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 subtracting numbers with different numbers of digits e.g. $912 - 7$ as this will check if they understand how to align the numbers i.e. with the 7 under the 2. HA questions will also check that they understand what to do when there is a 0 in the top number e.g. with $208 - 165$ you need to take a 100 from the 200 and make it 10 - 6</p> <ul style="list-style-type: none"> • $\begin{array}{r} 2108 \\ - 165 \\ \hline 43 \end{array}$ <p>For those who do not think they already know how to do column subtraction correctly, do some more examples with the first layout only. Represent the calculation using tens and units blocks e.g. $45 - 28$ below – I can't take 8 away from 5 so I need to go next door to get a 10 to make 15</p>	<p>LA – use expanded vertical partitioning (1st example),</p> <p>MA – 6 questions using 1st expanded method and 6 questions using 2nd formal method</p> <p>HA – use formal algorithm only</p> <p>G+T – use formal algorithm with decimals</p>	<p>Give children a subtraction to do on their pupil WB, which requires 'taking'. As they do it they need to explain to their partner what they are doing. Emphasise the need to use the language of taking ten or taking a hundred, not taking 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 subtract</p> <p>S: use the formal vertical algorithm to subtract</p> <p>C: subtract with numbers with decimal places</p>	



LA start work using first expanded layout only and representing calculations with tens and unit blocks.
 For MA do some more examples with both layouts, to help them see how the fist method is contracted down in the formal algorithm.
 Emphasise how with vertical subtraction 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 subtraction with decimals – emphasise it is the same thing, the key point is to put the numbers in the right columns