

<p>Y7</p>	<p>UNIT 4 Addition and Subtraction of Decimals Lesson Plan 1</p>	<p><i>Whole Numbers</i></p>
<p>Activity 1</p>	<p>Revision T: Let's check whether you can add and subtract. PB 4.1, Q1 and Q3 and also subtractions which have negative answers, e.g.</p> $3 - 4 \quad (= -1)$ $7 - 17 \quad (= -10)$ $23 - 35 \quad (= -12)$ $28 - 44 \quad (= -16)$ <p style="text-align: right;">5 mins</p>	<p>Notes</p> <p>Mental work.</p> <p>T stirs up Ps with fast tempo.</p> <p>T says the task, Ps calculate and volunteer to answer when they are ready.</p> <p>T points in turn.</p> <p>Agreement. Feedback. Praising.</p>
<p>2 2A</p> <p>2B</p>	<p>Laws of addition and subtraction T: Can you remember any 'laws' of addition and subtraction? (?) T: Have a look at these statements. You have to decide which are true and which are false. PB 4.1, Q2 (a) - (d) and</p> <div style="border: 1px solid black; padding: 5px; margin: 10px 0;"> $(16 + 3) + 7 = 16 + (3 + 7) = 16 + 3 + 7 \text{ and}$ $16 - (3 + 7) = 16 - 3 + 7$ </div> <p>T: So what is the law illustrated by (a) ? <i>(You can change the order of addition)</i></p> <p>T: We say that addition is 'commutative'. T: Is subtraction 'commutative' ? <i>(No - see (b))</i> T: What does (c) show? <i>(You can group the numbers in any way)</i> T: How does this help? <i>(Easier to add)</i></p> <p>T: Let's see what happens when we use brackets. Here is a group of statements. Calculate both sides and compare the answers, then decide if each is true or false.</p> <div style="border: 1px solid black; padding: 5px; margin: 10px 0;"> <p>(a) $65 + (35 - 3) = 65 + 35 - 3$</p> <p>(b) $65 - (35 - 3) = 65 - 35 - 3$</p> <p>(c) $65 - (35 + 3) = 65 - 35 + 3$</p> <p>(d) $65 - (35 + 3) = 65 - 35 - 3$</p> <p>(e) $65 - (35 + 3) = 65 - 35 + 3$</p> </div> <p>Discuss results; e.g. T: Why do you think (d) is true? <i>(We are substituting both 35 and 3 for 65)</i></p> <p style="text-align: right;">15 mins</p>	<p>Whole class activity.</p> <p>Statements shown on OHP or BB.</p> <p>Ps volunteer, T chooses, P answers.</p> <p>Reasoning. Agreement.</p> <p>No need to stress this word at this stage, unless Ps are confident.</p> <p>Illustrate through</p> $16 + 3 + 7 = 16 + (3 + 7) = 16 + 10 = 26$ <p>Whole class activity. Task appears on OHP.</p> <p>Ps calculate, volunteer, answer and give reasons. Agreement. Feedback. Praising.</p>

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<p>Activity</p> <p>3</p>	<p>Efficient calculations</p> <p>T: We can use these laws to make mental calculations easier.</p> <p>T: For example,</p> <p>(a) $39 + 58 + 61 = ?$ $(= (39 + 61) + 58 = 100 + 58 = 158)$</p> <p>(b) $132 - 67 - 13 = ?$ $(132 - (67 + 13) = 132 - 80 = 52)$</p> <p>T: Now in your Ex.Bs, find the quickest way to calculate these:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="padding: 5px;">(c) $39 + 48 + 12$</td> <td style="padding: 5px;">$(39 + (48 + 12))$</td> </tr> <tr> <td style="padding: 5px;">(d) $56 + 27 + 44$</td> <td style="padding: 5px;">$((56 + 44) + 27)$</td> </tr> <tr> <td style="padding: 5px;">(e) $91 - 16 - 74$</td> <td style="padding: 5px;">$(91 - (16 + 74))$</td> </tr> <tr> <td style="padding: 5px;">(f) $118 - 137 + 37$</td> <td style="padding: 5px;">$(118 - (137 - 37))$</td> </tr> </table> <p>T: e.g. Who would like to explain their method for (c)?</p> <p>T: Did anyone else use this method?</p> <p>T: Did anyone use a different method? What was it?</p> <p>T: Who got the correct answer?</p> <p>T: Make sure you have a correct method and answer in your Ex.B.</p> <p style="text-align: right;">_____ 28 mins _____</p>	(c) $39 + 48 + 12$	$(39 + (48 + 12))$	(d) $56 + 27 + 44$	$((56 + 44) + 27)$	(e) $91 - 16 - 74$	$(91 - (16 + 74))$	(f) $118 - 137 + 37$	$(118 - (137 - 37))$	<p style="text-align: center;">Notes</p> <p>Whole class activity.</p> <p>T writes task on BB and asks for volunteers. Ps write out method in BB.</p> <p>Discussion on quickest way. Agreement. Ps write out example in Ex.Bs.</p> <p>Individual work.</p> <p>T writes task on BB or OHP.</p> <p>Ps work in Ex.Bs. T walks among Ps, monitoring their work and helping slower Ps.</p> <p>After some minutes, when most Ps are ready, T stops the work.</p> <p>P comes to BB, with their calculation, saying it clearly and giving reasons.</p> <p>Discussion. Explanation. Agreement. Feedback.</p> <p>Praising.</p>		
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(f) $118 - 137 + 37$	$(118 - (137 - 37))$											
<p>4</p> <p><i>Extension</i></p>	<p>OS 4.1: Vertical calculations</p> <p>T: OK - what is $3\ 583\ 972 + 986\ 789$? (?)</p> <p>T: How can we calculate this? (<i>Vertical addition</i>)</p> <p>T: Now can you add $3\ 583\ 972$ and $986\ 789$?</p> <p>e.g.</p> <table style="margin-left: 40px;"> <tr><td>3 583 972</td><td></td></tr> <tr><td> 986 789</td><td>+</td></tr> <tr><td>-----</td><td></td></tr> <tr><td>4 570 761</td><td></td></tr> <tr><td> 1 111 11</td><td></td></tr> </table> <p style="text-align: right;">_____ 34 mins _____</p>	3 583 972		986 789	+	-----		4 570 761		1 111 11		<p>T shows task on OHP.</p> <p>Q1-3 can be solved by Ps at BB with discussion.</p> <p>Q4 in Ex.B. as individual work. Similarly Q5-7 on BB and Q8 in Ex.B.</p> <p>Ps calculate on BB with help.</p>
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986 789	+											

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1 111 11												
<p>5</p>	<p>Problems in context</p> <p>T: Listen carefully and try this calculation.</p> <p>T: There is an empty room with no-one in it. Just before 5 people enter the room, 3 people leave it. How many people are now in the room?</p> <p style="text-align: right;">_____ 38 mins _____</p>	<p>Whole class activity.</p> <p>T uses the 'funny' example as an activity to get their attention again.</p> <p>(<i>Problem:</i> How can 3 people leave an empty room?)</p> <p><i>Answer:</i> They can't, but mathematically they can!)</p>										

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Activity 6	<p>PB 4.1, Q9</p> <p>T: Who can write out a solution to (a) ? P₁: (on BB) $22 - 5 + 12 = 29$</p> <p>T: Who has the same? Who has another method? P₂: (on BB) $22 + (12 - 5)$</p> <p>T: Does this method work? Does it give the same answer? (Yes) T: Now who can give us a solution to part (b) ? P₃: (on BB) e.g. $22 + 0 + x = 35$</p> <p>T: Is that correct? What is the mistake? P₄: (on BB) $29 - 0 + x = 35$ $x = 6$</p> <p style="text-align: right;"><i>45 mins</i></p>	<p style="text-align: center;">Notes</p> <p>Individual work for a fixed time interval, followed by discussion with T choosing P to show solution on BB.</p> <p>Agreement. Feedback. Self-correction.</p> <p>Praising.</p> <p>Discussion on how the clever use of brackets can help.</p> <p>Discussion, explaining.</p> <p>Agreement. Feedback. Self-correction. Praising.</p>
7	<p>Set homework</p> <p>PB 4.1, Q5</p> <p>Q14</p> <p>Q17 (a) - (h)</p>	<p>Slower Ps could solve early questions for homework and give them to T for marking.</p>

Y7	UNIT 4 Addition and Subtraction of Decimals Lesson Plan 2	<i>Decimals</i>
<p>Activity</p> <p>1</p> <p>1A</p> <p>1B</p> <p>1C</p>	<p>Checking homework</p> <p>PB 4.1, Q5 (c) e.g.</p> <p>P_1 (on BB): $5 + 7 - (2 - 1) = 11$</p> <p>T: Is this correct? Is there any other way?</p> <p>PB 4.1, Q14 e.g.</p> <p>P_2 (on BB): $216 + 82 - 73 = 225$</p> <p>T: Is this correct? Who got the same answer?</p> <p>T (to P_2): How did you add the numbers?</p> <p>P_2: I added 82 to 216 to give 298 and then subtracted 73.</p> <p>T: Can anyone come to the board and show us another way?</p> <p>P_3 (at BB): $216 + (82 - 73) = 216 + 9 = 225$</p> <p>T: Who used this method? Which is the better method?</p> <p>PB 4.1, Q17 (a) - (h)</p> <p style="text-align: right;"><i>8 mins</i></p>	<p>Notes</p> <p>T chooses Ps to write out solutions to Q5 and Q14 on BB. Solutions discussed.</p> <p>Self-correction. Praising.</p> <p>T chooses Ps in turn, to give answers and methods of calculation.</p>
<p>2</p>	<p>Revision</p> <p>T: A problem for practice. Ready? <i>(Yes)</i></p> <p>T: Old MacDonald had a farm, And on that farm he had 37 pigs.</p> <p>T: On Monday, he bought 22 pigs OK?</p> <p>T: Next day the mouse took away 15 pigs ... yes, it was a real BAFM (Big Angry Fighter Mouse).</p> <p>T: Finally, on Wednesday morning, Old MacDonald bought 78 more pigs, but 73 escaped into his neighbour's field that afternoon.</p> <p>T: OK? Ready? How many pigs were on Old MacDonald's farm on Wednesday evening?</p> <p>T: What is your answer? And yours? Any other answers?</p> <p>T: Now let's see who is correct. Who would like to show their calculation on the BB while I read out the story again?</p> <p>P: 1st day $37 + 22 = 59$ 2nd day $59 - 15 = 44$ 3rd day $(44 + 78) - 73 = 49$</p> <p>T: Who got the first step correct? Second step? Third step? Who got it wrong? Where was your problem? Does anyone have an easy way of calculating the third step? $(44 + (78 - 73))$</p> <p style="text-align: right;"><i>16 mins</i></p>	<p>Mental work. T reads out problem slowly. Ps calculate in their heads.</p> <p>Ps nod their heads to show that they have done the calculation.</p> <p>This may cause problems for many Ps. T asks Ps who seem to be sure of their answers.</p> <p>T reads the story again, day by day, with P writing each step on BB.</p> <p>Ps volunteer answer. Agreement. Praising.</p>

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<p>Activity 3</p>	<p>Rounding: place value</p> <p>T: Firstly we'll revise place value, which is based on the power of 10. What do we use? <i>(Units, tens, hundreds, ...)</i></p> <p>T: What about decimals? <i>(Tenths, hundredths, thousandths, ...)</i></p> <p>T: What does 4.386 mean? <i>(4 units, 3 tenths, 8 hundredths and 6 thousandths)</i></p> <p>T: Who could draw a place value table on the BB to show this number?</p> <p>T: What about 685, 3.4, 10.57, 28.002, 0.501 ?</p> <p style="text-align: center;">40 mins</p>	<p>Notes</p> <p>Whole class activity. Quick revision of place value. Ps can answer in chorus.</p> <p>T writes number on BB Praising.</p> <p>Ps volunteer. T chooses P to draw table on BB; 4.386 written in table.</p> <p>T says the numbers and Ps in turn write in numbers, extending place value table where necessary. Agreement. Praising.</p>																				
<p>4A</p> <p>(continued)</p>	<p>Adding and subtracting decimals</p> <p>T: Daffy Duck is training Bugs Bunny for the next Olympic Games. Do you know when these will be held?</p> <p>T: Bugs Bunny is very good at 'Hop, Skip and Jump'. Last week he hopped 445 cm, stepped 39 dm and jumped 6 m 3 cm. What is the total distance he covered?</p> <p>T: We can write these values in a table:</p> <table style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>10 m</th> <th>m</th> <th>dm</th> <th>cm</th> </tr> </thead> <tbody> <tr> <td></td> <td>4</td> <td>4</td> <td>5</td> </tr> <tr> <td></td> <td>3</td> <td>9</td> <td>0</td> </tr> <tr> <td></td> <td>6</td> <td>0</td> <td>3</td> </tr> <tr> <td>1</td> <td>4</td> <td>3</td> <td>8</td> </tr> </tbody> </table> <p>T: His total was 14 m 3 dm 8 cm.</p> <p>T: So what place value table is needed if we choose 1 cm as the unit? <i>(Thousands, hundreds, tens, units)</i></p> <p>T: And what will the addition look like?</p> $\begin{array}{r} 445 \\ 390 \\ + 603 \\ \hline 1438 \end{array}$ <p>T: But what if 1 dm is the unit? <i>(Hundreds, tens, units, tenths)</i></p> $\begin{array}{r} 44.5 \\ 39.0 \\ + 60.3 \\ \hline 143.8 \end{array}$	10 m	m	dm	cm		4	4	5		3	9	0		6	0	3	1	4	3	8	<p>Discussion (2004 : Athens 2008 : Beijing)</p> <p>T will need to explain dm (1 decimetre = 10 cm).</p> <p>T writes data on BB and Ps discuss units. T chooses Ps in turn to enter data. T chooses 4th P to add up the numbers. Agreement. Praising.</p> <p>Ps may answer in chorus. T chooses P to write on BB.</p> <p>Ps write in Ex.Bs.</p> <p>T chooses another P to write on BB and say what they are doing.</p> <p>Ps write in Ex.Bs.</p>
10 m	m	dm	cm																			
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Y7	UNIT 4 Addition and Subtraction of Decimals Lesson Plan 2	<i>Decimals</i>
<p>Activity</p> <p>4A <i>(continued)</i></p> <p>4B</p>	<p>T: And what if 1 m is the unit? <i>(Tens, units, tenths, hundredths)</i></p> $\begin{array}{r} 4 . 4 . 5 \\ 3 . 9 0 \\ + 6 . 0 3 \\ \hline 1 4 . 3 8 \end{array}$ <p>T: This week, Bugs Bunny had a total jump of 15 m 20 cm. How much longer was this than his jump last week?</p> <p>e.g. P₁: If the unit is 1 cm, the calculation is</p> $\begin{array}{r} 1 5 2 0 \\ - 1 4 3 8 \\ \hline 8 2 \end{array} \quad \text{i.e. 82 cm}$ <p>P₂: If the unit is 1 m, the calculation is</p> $\begin{array}{r} 1 5 . 2 0 \\ - 1 4 . 3 8 \\ \hline 0 . 8 2 \end{array} \quad \text{i.e. 0.82 m}$ <p>T: So what rule are we using when adding or subtracting decimals?</p> <p style="text-align: right;"><i>35 mins</i></p>	<p>Notes</p> <p>T chooses another P to write on BB and say what they are doing.</p> <p>Agreement. Praising. Ps write in Ex.Bs.</p> <p>T leads Ps to choose the unit.</p> <p>After discussion, T clarifies that "We write decimals so that the same place values are in the same column, with the decimal points lining up. After addition/ subtraction, the decimal point in the answer is in the same place."</p>
<p>5</p> <p>5A</p> <p>5B</p>	<p>Practice</p> <p>(a) $36.4 + 17.825$ (b) $12.5 - 8.38$</p> <p>PB 4.1, Q18 (a), (e), (i), (n) PB 4.1, Q19 (a), (c), (i), (k)</p> <p style="text-align: right;"><i>45 mins</i></p>	<p>T writes (a) and (b) on BB and chooses 2 Ps to calculate answers, saying what they are doing. Ps write in Ex.Bs.</p> <p>Agreement. Praising.</p> <p>Individual work; monitored, helped.</p> <p>Discussion at BB (Ps write on BB).</p> <p>Agreement. Feedback. Self-correction. Praising.</p> <p>T again stresses how to add and subtract decimals.</p>
<p>6</p>	<p>Set homework</p> <p>PB 4.1, Q18 (c), (h), (j), (k), (m) PB 4.1, Q19 (f), (h), (j), (l), (m)</p>	

<p>Y7</p>	<p>UNIT 4 Addition and Subtraction of Decimals Lesson Plan 3</p>	<p><i>Dealing With Money</i></p>																														
<p>Activity 1</p>	<p>Checking homework</p> <p>e.g. PB 4.1, Q19 (l)</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;">wrong</td> <td style="text-align: right; padding-right: 20px;">1 1 . 4 0</td> <td style="width: 30%;"></td> <td style="text-align: right; padding-right: 20px;">correct</td> <td style="text-align: right;">1 1 . 4 0</td> </tr> <tr> <td></td> <td style="text-align: right;">- 3 . 1 2</td> <td></td> <td></td> <td style="text-align: right;">- 3 . 1 2</td> </tr> <tr> <td></td> <td style="text-align: right; border-top: 1px solid black;"> </td> <td></td> <td></td> <td style="text-align: right; border-top: 1px solid black;"> </td> </tr> </table> <p>e.g. PB 4.1, Q19 (m)</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;">correct</td> <td style="text-align: right; padding-right: 20px;">0 . 7</td> <td style="width: 30%;"></td> <td style="text-align: right; padding-right: 20px;">or</td> <td style="text-align: right;">0 . 7 0</td> </tr> <tr> <td></td> <td style="text-align: right;">- 0 . 0 4</td> <td></td> <td></td> <td style="text-align: right;">- 0 . 0 4</td> </tr> <tr> <td></td> <td style="text-align: right; border-top: 1px solid black;"> </td> <td></td> <td></td> <td style="text-align: right; border-top: 1px solid black;"> </td> </tr> </table> <p style="text-align: right;">etc.</p> <p style="text-align: center;">4 mins</p>	wrong	1 1 . 4 0		correct	1 1 . 4 0		- 3 . 1 2			- 3 . 1 2						correct	0 . 7		or	0 . 7 0		- 0 . 0 4			- 0 . 0 4						<p style="text-align: center;">Notes</p> <p>T chooses Ps to write answers on BB.</p> <p>Agreement. Feedback. Self-correction. Praising.</p> <p>T checks that Ps are writing out calculations correctly.</p>
wrong	1 1 . 4 0		correct	1 1 . 4 0																												
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<p>2</p>	<p>Money calculations</p> <p>T: Today we are going to buy tickets, chips and newspapers whilst practising addition and subtracting of decimals.</p> <p>First, though, let's see if we are ready to go into a shop!</p> <p>T: Can you calculate with decimals? (Yes)</p> <p>T: Let's see! Write down what I say.</p> <p>T: I thought of a number, added the sum of 0.2 and 0.7 to it, and got 2.41. What was the number I thought of?</p> <p style="text-align: center;">$(? + (0.2 + 0.7) = 2.41)$</p> <p>T: Who got the answer 1.51 ?</p> <p>Who has a different answer?</p> <p style="text-align: center;">12 mins</p>	<p>This is a warm-up activity, continuing from the previous lesson.</p> <p>Ps write in Ex.Bs.</p> <p>T gives Ps time to solve the problem.</p> <p>T chooses P to write solution on BB.</p> <p>Agreement. Feedback. Self-correction. Praising.</p> <p>T helps slower Ps with calculation, e.g.</p> $0.2 + 0.7 = 0.9$ $? = 2.41 - 0.9$ $? = 1.51$																														
<p>3A T:</p> <p>(continued)</p>	<p>PB 4.2, Q8 (c)</p> <p>Find the pasty in the table. How much does it cost?</p> <p>T: What is the question? How can we answer it?</p> <p>T: If we are going to work in £s, what do we have to do first?</p> <p style="text-align: center;">$(79p \rightarrow \pounds 0.79)$</p> <p>T: Can anyone tell me how to write out the subtraction on the board?</p>	<p>Whole class activity.</p> <p>Ps read the text in their PBs and then T asks questions.</p> <p>T chooses Ps to answer.</p> <p>T writes on BB what P says:</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: right; padding-right: 20px;">1 . 2 0</td> </tr> <tr> <td style="text-align: right;">- 0 . 7 9</td> </tr> <tr> <td style="text-align: right; border-top: 1px solid black;">0 . 4 1</td> </tr> </table> <p>Ps write in Ex.Bs</p>	1 . 2 0	- 0 . 7 9	0 . 4 1																											
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<p>Activity</p> <p>5A (continued)</p> <p>5B</p>	$ \begin{array}{r} P_3: \quad 20.00 \\ - 17.16 \\ \hline 2.84 \end{array} $ <p>T: How much would Prakest have left if he had spent 5p less on Monday? <i>(5p more; £2.89)</i></p> <p>T: And if he had spent 3p more on Monday? <i>(3p less; £2.81)</i></p> <p>T: How much would he have left if he had spent £8.35 on Wednesday? <i>(2p less; £2.82)</i></p> <p style="text-align: right;"><i>38 mins</i></p>	<p style="text-align: center;">Notes</p> <p>T gets Ps to answer in words.</p> <p>Agreement. Self-correction. Praising.</p> <p>T chooses Ps to give answers.</p> <p>T leads Ps to make general statements about change.</p> <p>Praising.</p>
<p>6</p>	<p>Problem</p> <p>T: Carlos and Jon are brothers. One morning, Carlos had £12.60 and Jon had £6.78.</p> <p>Carlos spent 91p on sweets on his way to visit a friend</p> <p>Jon stayed at home and his mother gave him £3.59 pocket money.</p> <p>Carlos spent £3.09 on food in a snack bar.</p> <p>Jon paid £1.59 for a cheeseburger for lunch.</p> <p>Who had the most money that evening and by how much?</p> <p>e.g.</p> <p>$P_1: \text{ (data for Carlos) } 12.60 - 0.91 - 3.09$ $(= 12.60 - (0.91 + 3.09))$</p> <p>$P_2: \text{ (data for Jon) } 6.78 + 3.59 - 1.59$ $(= 6.78 + (3.59 - 1.59))$</p> <p style="text-align: right;"><i>45 mins</i></p>	<p>Whole class activity.</p> <p>T reads out task, and also shows it on OHP.</p> <p>Ps have to identify and order data.</p> <p>After collecting data for Carlos, Ps can find out what happened to his money.</p> <p>T reminds class of the use of brackets to make calculations easier.</p> <p>Comparing answers. Praising.</p>
<p>7</p>	<p>Set homework</p> <p>PB 4.2, Q6</p> <p>PB 4.2, Q8 (b)</p> <p>PB 4.2, Q12</p>	

<p>Y7</p>	<p>UNIT 4 Addition and Subtraction of Decimals Lesson Plan 4</p>	<p><i>Problems in Context</i></p>
<p><i>Activity</i></p>		<p><i>Notes</i></p>
<p>1 1A</p> <p>1B</p>	<p>Checking homework PB 4.2, Q6 and Q8 (b)</p> <p>PB 4.2, Q12 e.g. T: Who would like to write their plan on the BB? $((10 - 2.48) + (5 - 1.39))$</p> <p>T: Who did it this way? What was the result? (£11.13)</p> <p>Who used another method? Did you get the same result? etc.</p> <p style="text-align: center;">_____ 5 mins _____</p>	<p>Answers checked; details given only if Ps have had problems.</p> <p>T reviews methods of tackling this problem.</p>
<p>2 2A</p> <p>2B</p>	<p>Problems in context</p> <p>T: Listen carefully to this problem. A 70-year-old sea captain is shipwrecked on an island in the middle of the Pacific Ocean. Also on the island are 2 dogs 5 cats 23 horses 100 cows 37 hens 28 rabbits 59 ducks 324 pigs 593 elephants ... etc.</p> <p>T: How old is the captain?</p> <p>T: In a school there are 3 classes in both Y7 and Y8. In one Y7 class there are 28 pupils, in another 29 pupils and in the third, 31 pupils. In one Y8 class there are 27 pupils, in another 30 pupils and in the third 28 pupils. How many pupils are there in Y7?</p> <p style="text-align: center;">_____ 12 mins _____</p>	<p>Mental work, but really a lesson on the relevance (or otherwise) of some data. Pupils might react with irritation or despair!!</p> <p>T reads introduction and then pauses after each type of animal, as if to give Ps time to count up. T gradually speeds up so that Ps do not have time to calculate.</p> <p>Ps grumble and protest, but T ignores them and continues, saying the <i>question</i> slowly and carefully.</p> <p>Ps and T can agree that text can contain data which is not needed when answering the question.</p> <p>Task given on OHP.</p> <p>T discusses what data is relevant and what can be ignored. Ps choose easiest way of calculating answer.</p> $28 + 29 + 31 = 28 + (29 + 31)$ $= 28 + 60 = 88$
<p>3 3A</p>	<p>Review of topic M 4.3</p>	<p>Mental work; T encourages Ps to count in their heads if possible; otherwise use Ex.Bs.</p> <p>T reads out questions, repeating them if necessary. T chooses Ps to write answers on BB. Other Ps work in Ex.Bs.</p> <p>Agreement. Self-correction. Praising. Write answers in Ex.Bs.</p>

Y7	UNIT 4 Addition and Subtraction of Decimals Lesson Plan 4	<i>Problems in Context</i>
<p>Activity</p> <p>3B</p> <p>Calculate (the following are shown on BB or OHP):</p> <p>(a) $2.53 + 3.88$</p> <p>(b) $4.29 - 2.51$</p> <p>(c) $0.39 + 11.8$</p> <p>(d) $12.3 - 8.77$</p> <p>3C</p> <p>OS 4.4A and</p> <p>$17 - 6 - 4 = ?$</p> <p>$12 - 5 + 3 = ?$</p> <p>3D</p> <div style="border: 1px solid black; padding: 5px; margin: 5px 0;"> <p>At midday there were 1365 customers in a shopping centre. During the next 20 minutes, 387 of those customers left and 389 others arrived. How many customers were now in the shopping centre.</p> </div> <p>e.g.</p> <p>$P_1: (1365 - 387) + 389 = 1367$</p> <p>$P_2: 1365 + (389 - 387)$ $= 1365 + 2$ $= 1367$</p> <p>3E</p> <div style="border: 1px solid black; padding: 5px; margin: 5px 0;"> <p>There were 353 cars in a car park early in the morning. During the afternoon, 359 cars arrived and none left. How many cars are in the car park if, before noon, 356 left and none arrived?</p> </div>	<p style="text-align: right;">Notes</p> <p>Ps review more thoroughly how to add/subtract decimals; Ps come to BB or OHP to write out solutions, saying what they are doing. Others work in Ex.Bs.</p> <p>Agreement. Self-correction. Praising.</p> <p>Individual work.</p> <p>Checking, reasoning, agreement, feedback, self-correction. Praising.</p> <p>Ps can compare results and review what they have learned about brackets.</p> <p>T shows task on OHP and also reads it out.</p> <p>T reminds Ps to find the easiest way of getting the answer.</p> <p>Agreement. Praising.</p> <p>Here, the <i>mathematical</i> answer is</p> $(353 - 356) + 359$ $= 353 + (359 - 356),$ $= 356$ <p>but only in maths, not in reality!</p> <p style="text-align: center;">45 mins</p>	
<p>4</p>	<p>Set homework</p> <p>M 4.4</p>	<p>A copy to be given to each P.</p>