

DAY	We Are Learning To (WALT):	MODEL / INTRODUCTION	INDEPENDENT WORK	PLENARY
M	<p>Mental: Know facts for multiplying and dividing by 2</p> <p>Main: Read and write numbers in words and figures</p> <p>Spr001</p>	<p>Mental: Show the children the 2-times-table and corresponding division facts. Have them recite it in a silly voice of their choice. Play gunfighters with it: split class in to two teams and have them line up opposite each other. Give children at the front of the row a calculation from the board. Child who answers quickest gets a point for their team. First two join back of line. Repeat. (Leave facts up throughout so that children are learning, not being tested)</p> <p>Main: Teacher (with remainder of class): Children to count with children down the tens column on the hundred square (ten, twenty etc) Emphasise the different sounds at the end of the teen numbers and tens numbers numbers e.g. <b>thirteen</b> and <b>thirty</b>. Revise how 2-digit numbers have tens and units, writing a capital U above the units and a capital T above the tens. Revise how to read 2-digit numbers e.g. 32 by looking at the tens number first and saying it e.g. thirty, then saying the units number e.g. two Make deliberate mistakes swapping digits e.g. fourteen as 41. Ask children if this is right? (You may choose to let lower ability children get started on their independent work at this point) Revise how 3-digit numbers have tens and units, writing a capital U above the units and a capital T above the tens and a capital H above the hundreds. Revise how to read 3-digit numbers e.g. 654 by looking at the hundreds number first and saying it e.g. six hundred, then saying the tens number e.g. fifty and finally the units number e.g. four (six hundred and fifty-four) Repeat above process with numbers with thousands and ten thousands Tell the children 'I am going to write the number 72' and write it as 702. Ask them to discuss with their talk partner if this is correct. Why / why not? Ask some children what they think Explain that we don't need the zero to make seventy because the 7 is in the tens column. This number would be seven hundred and two. Repeat with other numbers e.g. sixty-nine as 609 Repeat with numbers with hundreds e.g. two hundred and sixty-two as 20062. Tell the children 'I am going to write the number five hundred and four' and write it as 54. Ask them to discuss with their talk partner if this is correct. Why / why not? Ask some children what they think Explain that we need a zero in the tens column, so we should write 504. Repeat with other numbers with zeros in the tens, hundred or thousands columns e.g. 703, 8,024, 1,029, 30,062, 61,207</p>	<p>Lower ability - write the names of <b>two-digit</b> numbers in figures in words e.g. 72 as seventy-two, and numbers in words in figures e.g. sixty-eight as 68.</p> <p>Middle ability – as lower ability, but with <b>three-digit</b> numbers</p> <p>Higher ability – as lower ability, but with <b>four-digit</b> numbers</p> <p>Gifted and talented - as lower ability, but with <b>five-digit</b> numbers</p> <p>Early finishers can play the ICT game at <a href="http://www.sheppardsoftware.com/mathgames/earlymath/fruitShootNumbersWords.htm">http://www.sheppardsoftware.com/mathgames/earlymath/fruitShootNumbersWords.htm</a> on the smartboard as reinforcement / a reward</p>	<p>Children to make up examples of their own on their pupil whiteboards Children to swap boards and discuss if agree</p>

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Tu	<p>Mental: Know facts for multiplying and dividing by 5</p> <p>Main: Order numbers from highest to lowest</p> <p>Spr002</p>	<p>Mental: Show the children the 5-times-table and corresponding division facts. Have them recite it in a silly voice of their choice. Play gunfighters with it: split class in to two teams and have them line up opposite each other. Give children at the front of the row a calculation from the board. Child who answers quickest gets a point for their team. First two join back of line. Repeat. (Leave facts up throughout so that children are learning, not being tested)</p> <p>Main: Go through PowerPoint covering the following:</p> <ul style="list-style-type: none"> <li>• Explaining how there are 10 digits: 0, 1, 2, 3, 4, 5, 6, 7, 8 and 9 and that these digits are used to make all other numbers</li> <li>• Examples of 2-digit, 3-digit and 4-digit numbers At this point G+T children to go and attempt higher ability work (ordering 4-digit numbers)</li> <li>• Explaining what place value means and how the place of a digit gives it its value</li> <li>• Visual representations of some 2-digit numbers</li> <li>• Some 2-digit numbers for children to order. (Observe how well they do this)</li> <li>• Visual representations of some 2-digit numbers, with the same digit in the tens column</li> <li>• Some 2-digit numbers for children to order, with the same digit in the tens column (Observe how well they do this)</li> <li>• At this point less able children can begin their independent work</li> <li>• Visual representations of some 3-digit numbers</li> <li>• Some 3-digit numbers for children to order. (Observe how well they do this)</li> <li>• Visual representations of some 3-digit numbers, with the same digit in the hundreds</li> <li>• Some 2-digit numbers for children to order, with the same digit in the hundreds (Observe how well they do this)</li> <li>• Some 4-digit numbers for children to order (Observe how well they do this)</li> <li>• G+T children who have completed the work on ordering 4-digit numbers successfully to come to the carpet. Other children to start independent work</li> <li>• Explaining how a unit can be split in to tenths, with a visual representation</li> <li>• Explaining how a unit can be split in to hundredths, with a visual representation</li> <li>• An explanation and visual representation of how a unit, tenth, hundredth and thousandth relate to each other</li> <li>• Explaining how zeros after the final digit in numbers with a decimal place are irrelevant</li> <li>• Some numbers with decimal places for children to order</li> <li>• An explanation of negative numbers, using a number line to explain them</li> <li>• Some examples of positive and negative numbers for children to order</li> </ul>	<p>Lower ability – order 2-digit numbers</p> <p>Middle ability – order 3-digit numbers</p> <p>Higher ability – order 4-digit numbers</p> <p>Gifted and talented – order numbers with decimal places and negative numbers</p>	<p>Split children up in to teams Each child to write a number on their pupil whiteboard Have a race to see which team can get in to order <b>from highest to lowest</b> first</p>

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W	<p>Mental: Know facts for multiplying and dividing by 3</p> <p>Main: Partition numbers in different ways</p> <p>Spr003</p>	<p>Mental: Show the children the 2-times-table and corresponding division facts. Have them recite it in a silly voice of their choice. Play gunfighters with it: split class in to two teams and have them line up opposite each other. Give children at the front of the row a calculation from the board. Child who answers quickest gets a point for their team. First two join back of line. Repeat. (Leave facts up throughout so that children are learning, not being tested)</p> <p>Main: TA to take G+T children and go through following slides of PowerPoint:</p> <ul style="list-style-type: none"> <li>• Explaining how a unit can be split in to tenths, with a visual representation</li> <li>• Explaining how a unit can be split in to hundredths, with a visual representation</li> <li>• An explanation and visual representation of how a unit, tenth, hundredth and thousandth relate to each other</li> <li>• Explaining how zeros after the final digit in numbers with a decimal place are irrelevant</li> <li>• How to partition numbers in to their units and tenths in different ways, with visual representations of the units and tenths</li> <li>• How to partition numbers in to their units, tenths, hundredths and thousandths in different ways, with visual representations of each</li> <li>• Some more examples of how to partition numbers in to their units, tenths, hundredths and thousandths. Emphasise the need to get the number of zeros right</li> </ul> <p>Teacher go through PowerPoint covering the following with rest of class:</p> <ul style="list-style-type: none"> <li>• How to partition some 2-digit numbers in to their tens and units in 3 different ways, with visual representations of the tens and units</li> <li>• How to partition some 3-digit numbers in to their hundreds, tens and units in 3 different ways, with visual representations of the hundreds, tens and units</li> <li>• How to partition a 4-digit number in to thousands, hundreds, tens and units in 3 different ways</li> </ul>	<p>Lower ability – fill in missing number in partitioning sentence with 2-digit numbers e.g. <math>45 = 40 + \_ + 2</math></p> <p>Middle ability – as lower ability, but with 3-digit numbers</p> <p>Higher ability – as lower ability, but with 4-digit numbers</p> <p>Gifted and talented – as lower ability, but with decimal places</p>	<p>Children think of their own number to partition on their whiteboard</p> <p>Partition this number in as many ways as possible</p> <p>Show work to a partner, explaining how they partitioned each number, focusing on using the correct vocabulary (units, tens, hundreds etc) e.g. '1 partitioned 63 in to 3 tens + 3 tens + 2 units + 1 unit</p>

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Th	<p>Mental: Know facts for multiplying and dividing by 4</p> <p>Main: Add and subtract multiples of 10 and 100</p> <p>Spr004</p>	<p>Mental: Show the children the 2-times-table and corresponding division facts. Have them recite it in a silly voice of their choice. Play gunfighters with it: split class in to two teams and have them line up opposite each other. Give children at the front of the row a calculation from the board. Child who answers quickest gets a point for their team. First two join back of line. Repeat. (Leave facts up throughout so that children are learning, not being tested)</p> <p>Main: TA to take G+T children who were confident with partitioning numbers with decimal places to work on adding tenths, hundredths and thousandths Model how when we are adding tenths, we change the tenths, how when we are adding hundredths we change the hundredths etc</p> <p>Teacher with remainder of class: Go through examples of</p> <ul style="list-style-type: none"> <li>• Adding and subtracting multiples of 10 to 2-digit numbers</li> <li>• Adding and subtracting multiples of 100 to 3-digit numbers</li> <li>• Adding and subtracting multiples of 10 to 3-digit numbers</li> <li>• Adding and subtracting multiples of 1,000 to 4-digit numbers</li> </ul>	<p>(Have hundred squares and base ten materials for children if they struggle to calculate mentally, but try to get them not to use these if possible)</p> <p>Lower ability – add and subtract multiples of 10</p> <p>Middle ability – add and subtract multiples of 10 and 100</p> <p>Higher ability – add and subtract multiples of 10, 100 and 1,000</p> <p>Gifted and talented – add and subtract tenths, hundredths and thousandths</p> <p>Extension – make up some of their own number sentences to calculate</p>	<p>In partners children to take turns to answer questions at the same level as above Each partner to take it in turns to explain their working out and to listen to the explanation Model a good answer e.g. to calculate 32 plus 20 I only need to change the tens and 30 + 20 is 52 so the answer is 52 Discuss any disagreements about answers</p>

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F	<p>Mental: Know facts for multiplying and dividing by 6</p> <p>Main: Column addition (with two numbers)</p> <p>Spr005</p>	<p>Mental: Show the children the 2-times-table and corresponding division facts. Have them recite it in a silly voice of their choice. Play gunfighters with it: split class in to two teams and have them line up opposite each other. Give children at the front of the row a calculation from the board. Child who answers quickest gets a point for their team. First two join back of line. Repeat. (Leave facts up throughout so that children are learning, not being tested)</p> <p>Main: TA to take children who are unable to add a 1-digit number to a 2-digit number (e.g. <math>47 + 8</math>) and / or are unable to add multiples of 10 (e.g. <math>40 + 20</math>) Practice counting up to 100, especially focusing on crossing tens barriers Practice counting up to 100 in tens Calculate mentally by putting first number in head and counting on, using fingers to keep count Work on setting these questions out in columns and calculating them mentally</p> <p>Go through PowerPoint with the following:</p> <ul style="list-style-type: none"> <li>Revise 5 key teaching points (see below)</li> <li>Explanation of how when the units column is full i.e. has 10 units in it, these 10 units need to move next door to the tens and become 1 ten, with several examples</li> <li>Go through examples of how to add 2-digit and 3-digit numbers e.g.</li> </ul> <table border="1" data-bbox="495 906 851 1050"> <tr> <td>1)</td> <td></td> <td>4</td> <td>7</td> <td></td> <td>2)</td> <td></td> <td>2</td> <td>3</td> <td>9</td> </tr> <tr> <td></td> <td></td> <td>+</td> <td>2</td> <td>5</td> <td></td> <td></td> <td>+</td> <td></td> <td>5</td> </tr> <tr> <td></td> <td></td> <td></td> <td>7</td> <td>2</td> <td></td> <td></td> <td></td> <td>2</td> <td>9</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>1</td> </tr> <tr> <td></td> <td></td> <td></td> <td>1</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>1</td> </tr> </table> <p>(With every example reinforce main teaching points:</p> <ul style="list-style-type: none"> <li>Start on the right-hand side</li> <li>Put only 1 number in a square</li> <li>Write the +</li> <li>Put units under units and tens under tens and so on</li> <li>Putting the 1 you carry in the correct column</li> </ul> <p>Middle and higher ability go to stick success criteria in books</p> <ul style="list-style-type: none"> <li>Model for G+T how to use column addition with numbers with decimal places</li> </ul> <p>Remind children to leave space between calculations and not squash them together Have a copy of the success criteria to stick at the top of their page on each child's desk (except for lower ability as they do not need to think about all of the criteria)</p>	1)		4	7		2)		2	3	9			+	2	5			+		5				7	2				2	9										1				1						1	<p>(At regular intervals have children stop and check their work against success criteria)</p> <p>Lower ability – add 1-digit numbers to 2-digit numbers (give number line if really cannot work without it)</p> <p>Middle ability – add 2-digit numbers</p> <p>Higher ability – add 3-digit numbers</p> <p>Extension – add 4-digit numbers and numbers with decimal places</p>	<p>Have children self-assesses their work against the success criteria In ability partners give children 1 question to do each Children need to talk to their partner, explaining what they are doing e.g. I will put the 6 under the 5 because they are both units. Then I will put the 40 under the 20 because they are both tens. Then I draw my equals line with a ruler. Then I start on the right and add the units first, carrying a ten and writing it under the tens, and then add the tens Children swap over and partner who spoke first now listens</p>
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