

DAY	We Are Learning To (WALT):	MODEL / INTRODUCTION	INDEPENDENT WORK	PLENARY
M	<p>Mental: To be able to count up to and back from 20</p> <p>Main: Read and write numbers in words</p> <p>Aut001</p>	<p>Mental: Ask children to choose a silly voice (high, low, posh, pirate's etc) to count up to and back from 20</p> <p>Main: TA to take children who do not know how to name numbers up to 20. (For any children who not sure if know them, quickly test them on a couple to assess their current knowledge) TA to show children number flash cards with number and number word. Children to say numbers and number names with TA. TA to give children in pairs a set of cut up cards with numbers and number names up to 20. Have a race to see who can match the numbers and number names the quickest Teacher (with remainder of class): Open hundred square on IWB e.g. https://www.topmarks.co.uk/learning-to-count/paint-the-squares. Children to count with teacher from 11 to 20 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. thirteen and thirty. Show children names of the teen and tens with endings highlighted. Emphasise how eleven and twelve are awkward. Revise how 2-digit numbers have tens and units, writing a capital U above the units and a capital T above the tens. Explain 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 middle ability children get started on their independent work at this point) Explain 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. Explain 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 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 or hundred columns e.g. 703 or 8,024</p>	<p>Lower ability (Group with TA) – to draw a line between numbers up to 20 and their names or to write the correct name next to numbers up to 20. (Numbers will be out of sequence)</p> <p>Middle ability - write the names of two-digit 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>Higher ability – as middle ability, but with three-digit numbers</p> <p>Gifted and talented - as middle ability, but with four-digit numbers</p> <p>Early finishers can play the game in the plenary on the smartboard as reinforcement / a reward</p>	<p>Repeat some of the deliberate mistakes from earlier e.g. writing seventy-two as 702. Let children have a go at the naming numbers game (hyperlink below), choosing the right level https://www.sheppardsoftware.com/math/early-math/number-words-fruit-splat-game/</p>

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Tu	<p>Mental: To be able to count up and down from 20 to 50</p> <p>Main: Understand place value</p> <p>Aut002</p>	<p>Mental: Ask children to choose a silly voice (high, low, posh, pirate's etc) to count up and down from 20 to 50</p> <p>Main: TA to take children who are unable to count reliably (if unsure if can count reliably ask child to quickly count a number of items) and cover the following principles: One-to-one – each item should only be counted once. TA to make deliberate mistake of continuously counting each item more than once, until children say 'No! That's wrong'. Ask them to explain why Stable-order – that the order of number names does not change. TA to make deliberate mistake of counting incorrectly e.g. one, two, five, three, eight, until children say 'No! That's wrong'. Ask them to explain why. Practice counting up and down to 20. Cardinal – the last number counted tells us 'how many' items there are Abstraction – that anything can be counted, including unrelated and mixed items. TA to count mixed objects e.g. pencils, rubbers and sharpeners, as one group. Order-irrelevance – that we can count from any object; we don't have to start from right to left. TA to count from objects in the middle and on the right. Conservation of number – TA to show children a smaller number of larger items e.g. 4 biscuits and a larger number of smaller items e.g. 6 small coins. Discuss with the children which group has 'more' items. Discuss how we can make it easier to not make mistakes when we count e.g. arranging the items in to a row or moving the 'counted' objects away from the 'to be counted' ones Children to practice counting groups of items correctly in pairs. Teacher (with remainder of class): Revise how we need to look at the position, or place, of a number to know what it is worth i.e. is it in the hundreds, tens or units column. Use place value ITP from https://www.ictgames.com/mobilePage/arrowCards/index.html (if the link does not work, Google 'place value interactive teaching tool' to find something similar) to model how 4 is worth 4 units, 40 is worth 4 tens and 400 is worth 4 hundreds, so 40 is worth more than 4 and 400 is worth more than 40. Repeat with other similar numbers e.g. 6, 60 and 600. Also explain with base-ten materials http://www.worldwideshoppingmall.co.uk/toys/shelves/numeracy-base-10.asp (if have them) Model how we can 'exchange, ten units for one stick of ten and explain how ten units are worth the same as one stick of ten. Model how we can use drawings to represent each number (like below). Model how to complete independent work On pupil whiteboards ask children to draw a representation of a given number. Tell children not to show their whiteboards until asked (to stop copying). Keep any children who are still unsure and go through with them again.</p>	<p>Lower ability – count objects up to 20</p> <p>Middle ability – write 2 digit numbers to match representations of them in units blocks and tens sticks.</p> <p>Higher ability – draw representations to show the value of each digit in 2 digit and 3 digit numbers e.g. for 123</p> <p>Gifted and talented – as above, but also with 4-digit numbers, with larger rectangles for the thousands</p> <p>Extension – think of own numbers to draw representations of, and draw them</p>	<p>In ability partners give children a pupil whiteboard and a pen. Ask children to give their partners a number to draw a representation of. Discuss if they think their partner drew a suitable representation. Why / why not? Repeat</p>

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W	<p>Mental: To be able to count up and down from 50 to 100</p> <p>Main: Compare numbers and use < > and =</p> <p>Aut003</p>	<p>Mental: Ask children to choose a silly voice (high, low, posh, pirate's etc) to count up and down from 50 to 100</p> <p>Main: For each explanation below you can use the Place Value ITP (which allows you to see a representation of each / all digits in a number) https://www.ictgames.com/mobilePage/arrowCards/index.html (if the link does not work, Google 'place value interactive teaching tool' to find something similar) to compare the numbers:</p> <ol style="list-style-type: none"> 1. Choose a number to display by clicking on the arrows above the boxes in the bottom right-hand corner and clicking on the numbers 2. Use the arrows to change the number you wish to display, click on the numbers again and you should have both numbers there to compare <p>Revise how the first thing that you need to do to compare numbers is to see how many digits each number has. If one number has more digits than another, the one with more digits is the highest e.g. 50 is higher / more than 5, and 500 is greater than 50. Repeat with similar examples e.g. 56 and 8, 243 and 87</p> <p>If two numbers have the same number of digits e.g. 45 and 72, first you need to look at the number furthest on the left e.g. the 4 in 45 or the 7 in 72, because the tens are worth more than the units. Repeat with similar examples e.g. 81 and 32</p> <p>If two numbers have the same number furthest on the left e.g. 45 and 41, then you need to look at the next number along and compare them e.g. the 5 in 45 and the 1 in 41. Repeat with similar numbers e.g. 67 and 62.</p> <p>Repeat these explanations for numbers with 3 digits.</p> <p>Explain that we can use symbols to compare numbers and show which number is bigger or smaller Draw the symbols < > and =. Ask children if they have seen any of these before. Which ones? What do they stand for?</p> <p>Explain that < means 'less than' and > means 'more than'. Write these on the board. Explain that each one is a picture of a crocodile's mouth. Crocodiles are always hungry so the crocodile always gets ready to eat the biggest / highest / greatest number.</p> <p>Model how to use these symbols with several examples, always reminding children that the crocodile eats the biggest / highest / greatest number</p> <p>Give children a couple of examples to do on their pupil whiteboards. Remind children not to show their boards until you ask them (to prevent copying). Repeat this until most children seem confident in their understanding</p> <p>With children who are still unsure keep them on the carpet and go through with them again.</p> <p>Children who seem more secure to begin their independent work</p>	<p>Lower ability – use a number line to compare numbers below 20</p> <p>Middle ability – compare numbers up to 100</p> <p>Higher ability – compare numbers up to 1,000</p> <p>Gifted and talented – compare numbers up to 10,000</p> <p>Extension – give children a pupil whiteboard and pen to make up their own examples</p>	<p>Give each child a number or a symbol (<, > or =). When teacher counts down from 3, 2, 1, Go children need to find other children to make a three that looks correct. Repeat</p>

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Th	<p>Mental: To be able to count up to and back from 100 in tens</p> <p>Main: Order numbers</p> <p>Aut004</p>	<p>Mental: Have children count in 10s from 0 to 100 and back, doing a star jump for each number</p> <p>Main: Revise model from previous lesson on comparing two numbers and using the symbols $<$, $>$ and $=$ Explain that today instead of comparing just two numbers, we are going to be comparing more than two numbers at a time and putting them in order. Revise how the first thing that you need to do is to see how many digits each number has. If one number has more digits than another, the one with more digits is the highest e.g. 60 is higher / more than 6, and 600 is greater than 60. Model how to decide how to re-order 3 such numbers e.g. 20, 200 and 2 If two numbers have the same number of digits e.g. 45 and 72, first you need to look at the number furthest on the left e.g. the 4 in 45 or the 7 in 72, because the tens are worth more than the units. Model how to re-order 3 such numbers e.g. 43, 81, 56 If two numbers have the same number furthest on the left e.g. 45 and 41, then you need to look at the next number along and compare them e.g. the 5 in 45 and the 1 in 41. Model how to re-order 3 such numbers e.g. 47, 41 and 44. Repeat these explanations for numbers with 3 digits. Put a series of 3-digit numbers on the board. Ask more able talk partners (if children are sat in mixed ability pairs) to explain to their partner how they would decide which order to put them in Put a series of 2-digit numbers on the board. Ask less able talk partners to explain to their partner how they would decide which order to put them in. Ask less able children to begin work. Model for them how to use the number lines to order the numbers. Put a series of numbers on the board. Ask remaining children to order them from lowest to highest. Remind children not to show their boards until you ask them (to prevent copying). Repeat this until most children seem confident in their understanding With children who are still unsure keep them on the carpet and go through with them again. Children who seem more secure to begin their independent work</p>	<p>Lower ability – Use a number line to order numbers from 1 to 20 from lowest to highest</p> <p>Middle ability – Order 2-digit numbers up to 100</p> <p>Higher ability – Order 3-digit numbers up to 1,000</p> <p>Extension – Order 4-digit numbers up to 10,000</p> <p>Extension – Children who finish early to play game on ordering numbers at http://www.ictgames.com/sasNumberSort/index.html as a reward and to reinforce the lesson</p>	<p>Arrange children in to house teams. Give each child a number. Each house team needs to organise themselves so that they are in order from lowest to highest in a race. When children are in finished, ask them how they knew where to stand. Praise children for using words like digit, lower, higher, smaller, larger</p>

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F	<p>Mental: To be able to count up to and back from 20 in twos</p> <p>Main: Partition numbers</p> <p>Aut005</p>	<p>Mental: Have children count in 2s from 0 to 20 and back, doing a star jump for each number</p> <p>Main: Revise how columns in 2-digit numbers are tens and units and columns in 3-digit numbers are hundreds, tens and units Use Place Value ITP at http://www.taw.org.uk/lic/itp/place_val.html (if link does not work, just Google 'Place Value ITP') to show how a number in the tens column is worth ten times as many as a number in the units column e.g. a 1 in the tens column is worth 10, whereas a 1 in the units column is worth only 1. Repeat to show how a number in the hundreds column is worth ten times as many as a number in the tens column e.g. the 1 in 100 is worth ten lots of ten Model how we can partition numbers e.g. $43 = 40 + 3$ or $572 = 500 + 70 + 2$ (Lower and middle ability start work) Repeat above model, but for thousands as well e.g. $3,891 = 3,000 + 800 + 90 + 1$</p>	<p>Lower ability – partition 2-digit numbers</p> <p>Middle ability – partition 3-digit numbers</p> <p>Higher ability – partition 4-digit numbers</p> <p>Extension – make up own numbers to partition on pupil whiteboards</p>	<p>Give each child a card with either a number e.g. 43 or a number that has been partitioned e.g. $40 + 3$. Each child needs to find their corresponding partner (give lower ability 2-digit numbers, middle ability 3-digit numbers and higher ability 4-digit numbers)</p>