**Transition: Moving from Counting All to Advanced Counting Domain: Addition and Subtraction**

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| **Achievement Objectives** | **Number and Algebra: Level One** |
| Number Strategies:   * Use a range of counting, grouping, and equal-sharing strategies with whole numbers and fractions   Number Knowledge:   * Know the forward and backward counting sequences of whole numbers to 100. * Know the groupings with five, within ten, and with ten.   Equations and Expressions:   * Communicate and explain counting, grouping, and equal-sharing strategies, using words, numbers and pictures.   Patterns and Relationships:   * Generalise that the next counting number gives the result of adding one object to a set and that counting the number of objects in a set tells how many. |

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| **Key Teaching Ideas** | **Problem progression** | **References** | **Knowledge being developed** | **Resources** |
| Numbers can be added by counting on from the largest number in increments of one.  (Key Idea #1) | 9 + 2 = 🞏, 8 + 4 = 🞏,  14 + 3 = 🞏, 25 + 4 = 🞏,  99 + 5 = 🞏, 77 + 4 = 🞏,  8 + 🞏 = 11, 15 + 🞏 = 19,  67 + 🞏 = 72, 89 + 🞏 = 96  14 is how many more than 8?  33 is how many more than 27?  74 is how many more than 69? | ***Teaching Addition, Subtraction, and Place Value (Book 5)***  [Number Tiles](https://nzmaths.co.nz/node/895) (29)  [The Number Strip](https://nzmaths.co.nz/node/893) (30)  [The Bears’ Picnic](https://nzmaths.co.nz/node/896) (31)  [Change Unknown](https://nzmaths.co.nz/node/897) (31)  ***BSM***  Can You Count On? 6-3-2 (7)  Taking a Group and Counting On 9-3-57 (124)7-1-53, 9-1-11, 9-1-49, 10-1-7, 10-1-49, 10-1-50, 10-1-51 | Identify all of the numbers in the range 0–100 at least. | ***Teaching Number Knowledge (Book 4)***  [Number Mat and Lily Pads](https://nzmaths.co.nz/node/1036) (2)  [“Teen” and “Ty” Numbers](https://nzmaths.co.nz/node/1040) (3)  [Number Hangman](https://nzmaths.co.nz/node/1043) (5)  ***BSM***  8-1-45, 8-1-81, 9-1-4, 9-1-5,  9-1-6, 9-1-42, 9-1-82, 12-1-1 |

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| **Key Teaching Ideas** | **Problem progression** | **References** | **Knowledge being developed** | **Resources** |
| Numbers can be subtracted by counting back from the largest number in increments of one.  (Key Idea #2) | 12 - 3 = 🞏, 14 - 5 = 🞏,  23 - 4 = 🞏, 41 - 2 = 🞏,  67 - 5 = 🞏, 72 - 6 = 🞏,  12 - 🞏 = 9, 24 - 🞏 = 19,  67 - 🞏 = 58, 94 - 🞏 = 89  16 is how many less than 21?  39 is how many less than 43?  74 is how many less than 80? | ***Teaching Addition, Subtraction, and Place Value (Book 5)***  [Counting Back](https://nzmaths.co.nz/node/898) (32)  ***BSM***  9-3-13, 9-3-14, 9-3-55, 9-3-56,  9-3-57,9-3-58, 9-3-59, 9-3-85,  10-1-8, 10-1-52, 10-1-53 | Say the forwards and backwards number word sequences in the range 0–100, at least, connecting that the result of adding or taking one more/less object to a set is given by the next/previous counting number. | ***Teaching Number Knowledge***  ***(Book 4)***  [Number Fans](https://nzmaths.co.nz/node/1039) (4)  [Counting](https://nzmaths.co.nz/node/1054) (11)  [Lucky Dip](https://nzmaths.co.nz/node/873) (13)  [Using Calculators](https://nzmaths.co.nz/node/1059) (14)  [Hundreds Boards and Thousands Book](https://nzmaths.co.nz/node/1065) (16)  ***BSM***  9-1-4, 9-1-42, 9-3-9 |
| Objects can be counted by creating bundles of ten.  (Key Idea #3) | 40 + 20 = 🞏, 70 - 50 = 🞏,  60 + 30 = 🞏, 90 - 20 = 🞏,  42 + 30 = 🞏, 75 - 20 = 🞏,  54 - 🞏 = 24, 27 + 🞏 = 57,  36 + 🞏 = 76, 94 - 🞏 = 54 | ***Teaching Addition, Subtraction, and Place Value (Book 5)***  [Ones and Tens](https://nzmaths.co.nz/node/1103) (33) | Order numbers in the range 0–100, at least. | ***Teaching Number Knowledge***  ***(Book 4)***  [Card Ordering](https://nzmaths.co.nz/node/1057) (12)  [Arrow Cards](https://nzmaths.co.nz/node/1058) (13)  [Rocket- Where Will I Fit](https://nzmaths.co.nz/node/1060) (15)  [Number Line Flips](https://nzmaths.co.nz/node/1061) (15)  [Squeeze – Guess My Number](https://nzmaths.co.nz/node/1064) (15)  [Bead Strings](https://nzmaths.co.nz/node/1066) (17)  [Who is the Richest?](https://nzmaths.co.nz/node/1067) (18)  ***Figure It Out***  N 2.1 (1) [The Mail Gets Through](https://nzmaths.co.nz/node/3051)  N 2-3 (1) [Happy Hundreds](https://nzmaths.co.nz/node/3102)  ***BSM***  9-3-51, 9-3-52, 10-1-4, 11-1-4, 11-1-5, 11-1-43, 11-1-44, 11-1-45,  11-1-46, 11-3-6, 11-3-7, 11-3-46,  11-3-47, 11-3-48, 11-3-83 |

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| **Key Teaching Ideas** | **Problem progression** | **References** | **Knowledge being developed** | **Resources** |
| Groups of ten can be added and subtracted by using simple addition facts  (Key Idea #4) | 3 tens + 1 ten  5 tens – 2 tens  50 + 30  40 – 20  48 - 20  84 + 10  76 - 30 | ***Teaching Addition, Subtraction, and Place Value (Book 5)***  [Ten Stickers Per Packet](https://nzmaths.co.nz/node/25703) (34)  [Adding Tens](https://nzmaths.co.nz/node/899) (35)  [Subtracting Tens](https://nzmaths.co.nz/node/903) (35) | Recall the facts to ten, and the teen facts,  e.g. 3 + 7 = 10, 10 - 6 = 4, 10 + 8 = 18. | ***Teaching Number Knowledge (Book 4)***  [Up to Ten](https://nzmaths.co.nz/node/1087) (32)  [Tens Frames Again](https://nzmaths.co.nz/node/1090) (34)  [Using Tens Frames to Describe Patterns to Ten](https://nzmaths.co.nz/node/493) (34)  [Addition Flash Cards](https://nzmaths.co.nz/node/1098) (37)  ***BSM***  9-1-9, 9-1-10, 9-1-47, 9-1-48, 9-3-11,  9-3-12, 9-3-54, 10-1-3, 10-3-46,  11-3-8, 11-3-9,  11-3-49, 11-3-50, 11-3-51 |
| Addition is commutative, so the order of the numbers can be rearranged to make counting on easier  (Key Idea #5) | 3 + 11 = 11 + 3  4 + 23 = 23 + 4  3 + 21 + 2 = 3 + 2 + 21  2 + 94 = 94 + 2 | ***Teaching Addition, Subtraction, and Place Value (Book 5)***  [The Bigger Number First](https://nzmaths.co.nz/node/892) (36) | Recall the doubles to 20, e.g. 7 + 7 = 14. | ***Teaching Number Knowledge (Book 4)***  [Double Trouble](https://nzmaths.co.nz/node/1088) (32)  ***Figure It Out***  N 2.2 [Helping Hands](https://nzmaths.co.nz/node/3053) (3)  ***BSM***  10-1-6, 10-1-47, 10-1-48, 10-1-83 |

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| **Knowledge being developed** | **Resources** |
| Recall the number of tens within decades | ***Teaching Number Knowledge (Book 4)***  [Zap](https://nzmaths.co.nz/node/1081) (26)  [Number Boggle](https://nzmaths.co.nz/node/1089) (33)  ***Figure It Out***  N 2.2 [Flexible Fingers](https://nzmaths.co.nz/node/3084) (8)  BF 2-3 [One Liner](https://nzmaths.co.nz/node/2818) (1)  BF 2-3 [Fizzing It Up](https://nzmaths.co.nz/node/2858) (5)  ***BSM***  9-1-9, 9-1-10, 9-1-47, 9-1-48, 10-1-5, 10-1-45, 10-1-46, 11-1-12 |
| Recall the decades that add to 100,  e.g. 60 + 40 = 100. | ***BSM***  9-3-8, 9-3-49, 9-3-50 |