**Strategies by Grade Level**

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| **Grade** | **Addition** | **Subtraction** |
| **K** | Counting All/Counting On  Making Tens | Counting Back  Adding Up |
| **1** | Counting All/Counting On  Doubles/Near Doubles  Making Tens  Landmark or Friendly Numbers  Breaking Up Number into their Place Value  Adding up in Chunks | Adding Up  Removal in Parts |
| **2** | Counting All/Counting On  Doubles/Near Doubles  Making Tens  Landmark or Friendly Numbers  Breaking Up Number into their Place Value  Adding up in Chunks | Adding Up  Removal in Parts |
| **3** | Breaking Numbers into their Place Value  Adding up in Chunks  Compensation  Adjusting 1 Number to Create an Easier Problem using a Landmark Number | Adding Up  Negative Numbers  Constant Difference  Adjusting 1 Number  Open Number Line  Par-Whole Box Model |
| **Multiplication** | |
| Repeated Addition  Skip Counting  Doubling and Halving  Making an Array as a Model  Partial Products  Using Landmark Numbers | |

**Students need to understand that:**

* Numbers are composed of smaller numbers
* Numbers can be taken apart and combined with other numbers to make new numbers.
* What we know about one number can help us figure out other numbers.
* What we know about parts of smaller numbers can help us with parts of larger numbers.
* Numbers are organized into groups of tens and ones (and hundreds, tens, and ones, and so forth).
* What we know about numbers to 10 helps us with numbers to 100 and beyond