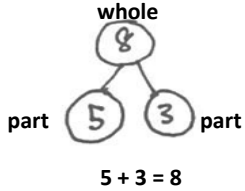
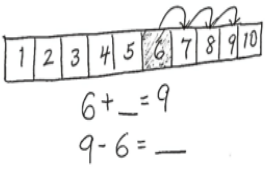
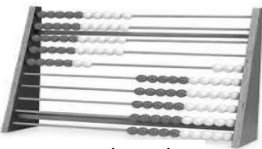
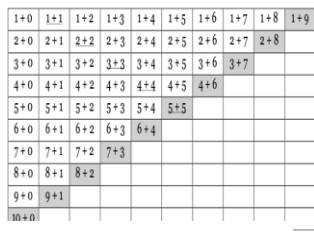
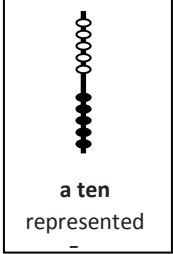


## Grade 1 Vocabulary/ Representation

| Vocabulary                    | Description   | Representation   |
|-------------------------------|---|--|
| <p><b>Number Bonds</b></p>    | <p>Number bond uses a part-whole-part concept to present the relation between the 3 numbers.</p>                              |   |
| <p><b>Number Path</b></p>     | <p>Number Paths are from 1-10 and represent addition and subtraction. For example 6 and 3 more is 9 or 9 and 6 less is 3.</p> |   |
| <p><b>Rekenrek</b></p>        | <p>Rekenreks represent 10 more or 10 less used in addition and subtraction for base 10.</p>                                   |  <p style="text-align: center;">Rekenrek</p>               |
| <p><b>Addition Chart</b></p>  | <p>Addition Charts represent patterns in addition such as doubles one more one less, and 10 more and 10 less.</p>             |   |
| <p><b>Expression</b></p>      | <p>An expression represents a mathematical phrase without an equal sign.</p>  | <p style="text-align: center;"><b>6 + 3</b><br/><b>10 - 6</b></p>  |
| <p><b>5 Group Columns</b></p> | <p>5 group columns represent 5 more or 5 less.</p>  |  <p style="text-align: center;">a ten<br/>represented</p> |



**Compose  
And  
Decompose  
(Addition & Subtraction)**

Composing Numbers are number that are put together to create one number. For example;  $300 + 30 + 3 = 331$ . Decomposing means to take apart a number for example;  $333 = 300 + 30 + 3$ .

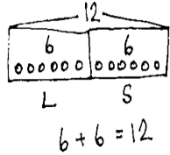
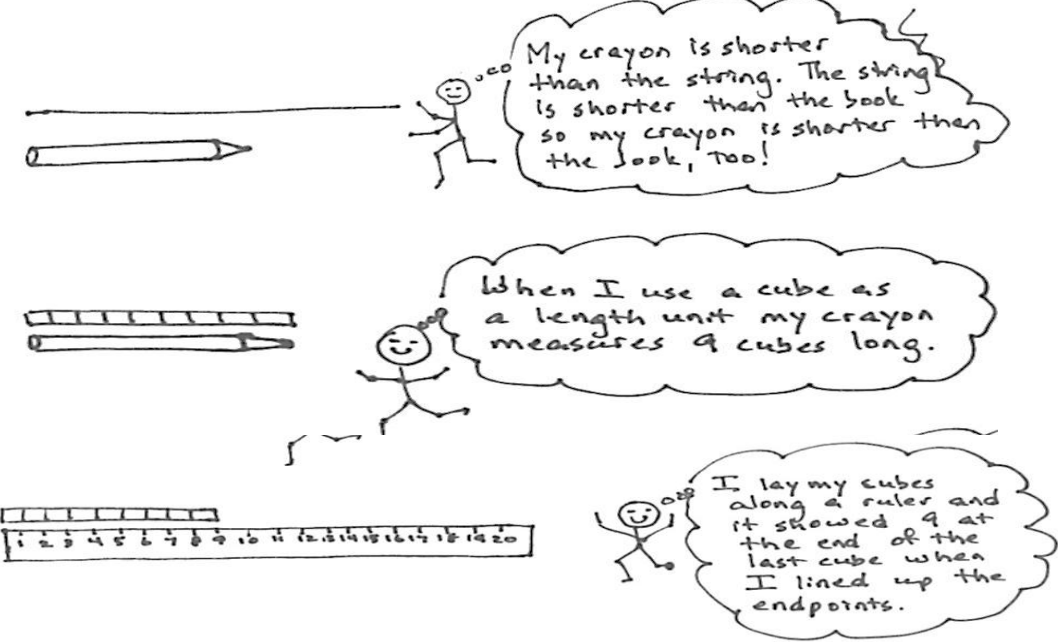
|  |                          |   |
|--|--------------------------|---|
| <p>Level 1: Count all</p> <p><math>9 + 6 = 15</math></p> | <p>Level 2: Count on</p> | <p>Level 3: Decompose an addend to compose</p> <p><math>9 + 6 = 15</math></p> |
|--|--------------------------|---|

|                          |   |                           |
|--------------------------|---|---------------------------|
| <p><b>Comparison</b></p> | <p>Comparing number that are greater than or less than and representing the numbers using a 5 group column.</p> | <p>18 is less than 21</p> |
|--------------------------|---|---------------------------|

|                              |   |   |
|------------------------------|---|---|
| <p><b>Arrow Notation</b></p> | <p>Greater than and less a number represented by an arrow and 10 more or 10 less.</p> | <p><math>26 \xrightarrow{+10} 36</math></p> <p>26 is ten more than 36</p> |
|------------------------------|---|---|

|                                 |   |   |      |      |   |   |
|---------------------------------|---|---|------|------|---|---|
| <p><b>Place Value Chart</b></p> | <p>The value of a number according to the place it holds.</p> | <table border="1"> <tr> <td>tens</td> <td>ones</td> </tr> <tr> <td>3</td> <td>4</td> </tr> </table> | tens | ones | 3 | 4 |
| tens                            | ones  |   |      |      |   |   |
| 3                               | 4   |   |      |      |   |   |



|   |   |   |
|---|---|---|
| <p><b>Tape Diagram</b></p>  | <p>Tape diagrams show the relationship between two quantities.</p>                    |  |
| <p><b>Commutative Property</b></p>  | <p>Commutative property means order does not matter the expression is equivalent.</p> | $6 + 3 = 9$ $3 + 6 = 9$ $9 = 6 + 3$ $9 = 3 + 6$                                     |
| <p><b>Centimeter Cubes and String</b></p>   | <p>Centimeter cubes and string measure the length of objects.</p>                     |   |
|  <p>My crayon is shorter than the string. The string is shorter than the book so my crayon is shorter than the book, too!</p> <p>When I use a cube as a length unit my crayon measures 9 cubes long.</p> <p>I lay my cubes along a ruler and it showed 9 at the end of the last cube when I lined up the endpoints.</p> |   |   |