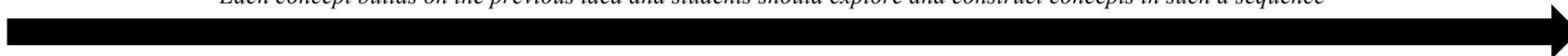


Number Sense Trajectory –Putting It All Together

Trajectory	<p><u>Subitizing</u> Being able to visually recognize a quantity of 5 or less.</p>	<p><u>Comparison</u> Being able to compare quantities by identifying which has more and which has less.</p>	<p><u>Counting</u> Rote procedure of counting. The meaning attached to counting is developed through one-to-one correspondence.</p>	<p><u>One-to-One Correspondence</u> Students can connect one number with one object and then count them with understanding.</p>	<p><u>Cardinality</u> Tells how many things are in a set. When counting a set of objects, the last word in the counting sequence names the quantity for that set.</p>	<p><u>Hierarchical Inclusion</u> Numbers are nested inside of each other and that the number grows by one each count. 9 is inside 10 or 10 is the same as $9 + 1$.</p>	<p><u>Number Conservation</u> The number of objects remains the same when they are rearranged spatially. 5 is $4+1$ OR $3+2$.</p>
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Each concept builds on the previous idea and students should explore and construct concepts in such a sequence



Number Relationships	<p><u>Spatial Relationship</u> <u>Patterned Set Recognition</u> Students can learn to recognize sets of objects in patterned arrangements and tell how many without counting.</p>	<p><u>One and Two-More or Less</u> Students need to understand the relationship of number as it relates to +/- one or two. Here students should begin to see that 5 is 1 more than 4 and that it is also 2 less than 7.</p>	<p><u>Understanding Anchors</u> Students need to see the relationship between numbers and how they relate to 5s and 10s. 3 is 2 away from 5 and 7 away from 10.</p>	<p><u>Part-Part-Whole Relationship</u> Students begin to conceptualize a number as being made up from two or more parts.</p>
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Addition and Subtraction Strategies

NOTES:

<p><u>One/Two More/Less</u> These facts are a direct application of the One/Two More/ Less than relationships</p>	<p><u>Make a Ten</u> Use a quantity from one addend to give to another to make a ten then add the remainder. $9 + 7 = 10 + 6$</p>	<p><u>Near Doubles</u> Using the doubles anchor and combining it with 1 and 2 more/less.</p>
<p><u>Facts with Zero</u> Need to be introduced so that students don't over generalize that answers to addition are always greater.</p>	<p><u>Doubles</u> Many times students will use doubles as an anchor when adding and subtracting.</p>	