

Number

Additive Reasoning



PreK (4-5 years old)	Kindergarten	Grade One	Grade Two
<p>Understanding of number values and sequences to 10 <i>(counting, cardinality, conservation, and stable order)</i></p> <p>1:1 Correspondence</p>	<p>Understanding of number values and sequences to 20 <i>(counting, cardinality, and stable order)</i></p> <p>1:1 Correspondence</p> <p>Comparing quantities</p>	<p>Understanding of number values and sequences to 120 <i>(cross century, cross decade)</i></p> <p>Understanding place value when adding and subtracting numbers within 100 <i>(in context and in equations)</i></p>	<p>Use place value understanding to add and subtract numbers accurately, flexibly, efficiently, and strategically within 1,000 <i>(in context and in equations)</i></p> <p>(NO standard algorithm)</p>
Models for Intervention			
5- and 10-frames for counting	10 frames	Multiple 10 frames	Multiple 10 frames/strips Number lines/adding up <i>(using part-part-total focus)</i> . These start from zero.
Models for Instruction			
Fingers 5-frames for subitizing Dot patterns <i>(regular and irregular)</i>	Fingers Dot patterns <i>(regular and irregular)</i> Bead Racks	<u>Number</u> - number paths <u>Adding and Subtracting</u> - multiple 10 frames, ten strips	Place value materials <i>(e.g., base ten blocks/pieces, digi-blocks, 10 frames, 10 strips)</i> Number lines <i>(articulated)</i>
Critical Strategies			
<p>Counting by 1s Subitizing Organizing¹ Tracking²</p>		<p>Compose, Decompose, & Recompose using Place Value:</p> <ul style="list-style-type: none"> Decompose both numbers to add/subtract (Recompose like units) Decompose one number and add/subtract by place value units. <p>Approach subtraction as a missing addend problem. (Understand addition and subtraction are related operations.)</p> <p>Use compensation based on the commutative, identity, and associative properties</p>	

¹Young children need to have a way to keep track of what's been counted and what still needs to be counted. How do they organize to keep track without a teacher saying "line them up and touch them" to count?

²Tracking refers to the actual gesture of touching and counting.