

Adding It Up Mathematics (National Research Panel, p 16)

5 Attributes of Proficiency

Target Skills	Related PAL-II Subtests
Conceptual Understanding	<ul style="list-style-type: none">• Oral Counting• Place Value• Part-Whole Relationships
Procedural Fluency	<ul style="list-style-type: none">• Computational Operations—Verbal Explanation and Problem Solution
Strategic Competence (formulate and represent math problems)	<ul style="list-style-type: none">• Multi-Step Problem Solving• Part-Whole Time
Adaptive Reasoning (e.g. explanation)	<ul style="list-style-type: none">• Computational Operations—Verbal Explanation
Procedural Disposition (seeing math as sensible)	<ul style="list-style-type: none">• Place Value—Problem Response Written• Finding the Bug• Part-Whole Concept