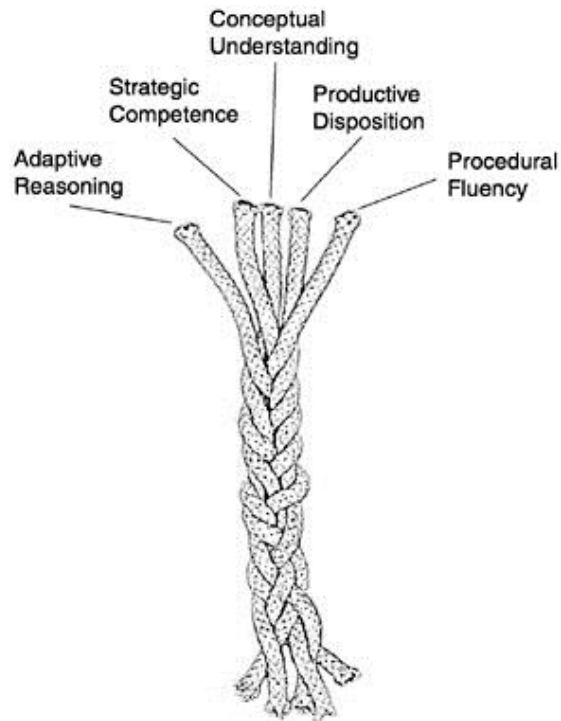


Adding it Up: Helping Children Learn Mathematics

Intertwined Strands of Proficiency



Conceptual understanding: Comprehension of mathematical concepts, operations, and relations

Procedural fluency: Skill in carrying out procedures flexibly, accurately, efficiently, and approximately

Strategic competence: Ability to formulate, represent, and solve mathematical problems

Adaptive reasoning: Capacity for logical thought, reflection, explanation, and justification

Productive disposition: Habitual inclination to see mathematics as sensible, useful, and worthwhile, coupled with a belief in diligence and one's own efficacy

Source: National Research Council. 2001. *Adding It Up: Helping Children Learn Mathematics*. Washington, DC: The National Academies Press, pp. 16–17.