

Suggestions to Extend Quantitative Reasoning Skills

Quantitative reasoning skills include high-level problem solving with mathematical computation, quantitative symbols and concepts. Some things you could do to support children's growth in this area include:

- Identify connections between different math processes
- Discuss and practice using math in other disciplines such as architecture, physics, chemistry
- Use math in real-life such as baking, grocery store, travel planning
- Ask "How could we improve...(the triangle, long division, etc.)?"
- Have students generate a list of questions about the math concept
- Study number systems not based on 10
- Use a variety of problem-solving strategies, such as: make a list, look for a pattern, guess and test, draw a diagram, work backwards
- Have children create their own math problems, number system, or problem-solving strategy
- Practice multi-step math problems
- Ask students to prove their answer to a math problem
- Use open-ended problems and decide what processes should be used and what outcomes are expected
- Teach children to ask "Is this answer reasonable?"
- Ask "What is the chance of (an event) occurring?"
- Create charts, tables, graphs to show Social Studies content
- Use data to make predictions for a science experiment
- Ask "What might happen if...?" questions such as: What might happen if the numbers 84 and 95 changed places or circles developed a straight side?
- Create riddles, jokes, cartoons about math concepts
- Use fantasy to discuss math content
- Learn computer programming
- Use the computer program *Study Island* for advanced content

Read books that use math content creatively, such as *The Phantom Tollbooth* by Juster