

MATHEMATICS

Mathematical Reasoning

Grade 6		
<p>1. Students make decisions about how to approach problems.</p> <p>6.1.1 Analyze problems by identifying relationships, discriminating relevant from irrelevant information, identifying missing information, sequencing and prioritizing information and observing patterns</p> <p>6.1.2 Formulate and justify mathematical conjectures based upon a general description of the mathematical question or problem posed</p> <p>6.1.3 Determine when and how to break a problem into simpler parts</p>	<p>2. Students use strategies, skills and concepts in finding solutions</p> <p>6.2.1 Use estimation to verify the reasonableness of calculated results</p> <p>6.2.2 Apply strategies and results from simpler problems to more complex</p> <p>6.2.3 Estimate unknown quantities graphically and solve for them using logical reasoning, and arithmetic and algebraic techniques</p> <p>6.2.4 Use a variety of methods such as words, numbers, symbols, charts, graphs, tables, diagrams and models to explain mathematical reasoning</p> <p>6.2.5 Express the solution clearly and logically using appropriate mathematical notation and terms and clear language, and support solutions with evidence, in both verbal and symbolic work</p> <p>6.2.6 Indicate the relative advantages of exact and approximate solutions to problems and give answers to a specified degree of accuracy</p> <p>6.2.7 Make precise calculations and check the validity of the results from the context of the problem</p>	<p>3. Students move beyond a particular problem by generalizing to other situations.</p> <p>6.3.1 Evaluate the reasonableness of the solution in the context of the original situation</p> <p>6.3.2 Note method of deriving the solution and demonstrate conceptual understanding of the derivation by solving similar problems</p> <p>6.3.3 Develop generalizations of the results obtained and the strategies used and extend them to new problem situations</p>