

## Mathematical Processes

### PROBLEM SOLVING - *LOOK FORs*

<b>PROBLEM SOLVING:</b> <i>Students will develop, select, apply, and compare a variety of problem-solving strategies as they pose and solve problems and conduct investigations, to help deepen their mathematical understanding.</i>	
<b>Planning</b>	Understand the problem
	Try different techniques and strategies
	Generate some examples
	Ask thoughtful questions
<b>Collecting data related to the problem</b>	Take and record measurements
	Search the Internet for secondary data
	Check that data being gathered is appropriate to the inquiry at hand
<b>Selecting and applying a problem-solving strategy</b>	<i>Include some of the following strategies:</i>
	Draw a diagram or picture
	Make a simpler but similar problem
	Create a mathematical model
	Work backwards
	Use a formula
	Look for a pattern
	Guess and check
	Make and state assumptions
	Make a scale drawing or use technology
	Make an organized list
	Use logical reasoning
	Consider alternative strategies or blend strategies
	Monitor progress and revise, as necessary
Ask if the answer is reasonable	
Consider extensions/variations to the problem	