A. Mathematical Processes Students will effectively use mathematical knowledge, skills and strategies related to reasoning, communication, connections, representation and problem solving.	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Grade 10
	Use reasoning and logic to: ▪ perceive patterns ▪ identify relationships ▪ formulate questions ▪ pose problems ▪ make conjectures ▪ justify strategies ▪ test reasonableness of results	Use reasoning and logic to: ▪ perceive patterns ▪ identify relationships ▪ formulate questions ▪ pose problems ▪ make conjectures ▪ justify strategies ▪ test reasonableness of results	Use reasoning and logic to: ▪ perceive patterns ▪ identify relationships ▪ formulate questions ▪ pose problems ▪ make conjectures ▪ justify strategies ▪ test reasonableness of results	Use reasoning and logic to: ▪ perceive patterns ▪ identify relationships ▪ formulate questions ▪ pose problems ▪ make conjectures ▪ justify strategies ▪ test reasonableness of results	Use reasoning and logic to: ▪ perceive patterns ▪ identify relationships ▪ formulate questions ▪ pose problems ▪ make conjectures ▪ justify strategies ▪ test reasonableness of results	Use reasoning and logic to: ▪ perceive patterns ▪ identify relationships ▪ formulate questions ▪ pose problems ▪ make conjectures ▪ justify strategies ▪ test reasonableness of results	Use reasoning and logic to: ▪ perceive patterns ▪ identify relationships ▪ formulate questions ▪ pose problems ▪ make conjectures ▪ justify strategies ▪ test reasonableness of results
	Communicate mathematical ideas and reasoning using the vocabulary of mathematics in a variety of ways e.g., using words, numbers, symbols, pictures, charts, tables, diagrams, graphs, and models.	Communicate mathematical ideas and reasoning using the vocabulary of mathematics in a variety of ways e.g., using words, numbers, symbols, pictures, charts, tables, diagrams, graphs, and models.	Communicate mathematical ideas and reasoning using the vocabulary of mathematics in a variety of ways e.g., using words, numbers, symbols, pictures, charts, tables, diagrams, graphs, and models.	Communicate mathematical ideas and reasoning using the vocabulary of mathematics in a variety of ways e.g., using words, numbers, symbols, pictures, charts, tables, diagrams, graphs, and models.	Communicate mathematical ideas and reasoning using the vocabulary of mathematics in a variety of ways e.g., using words, numbers, symbols, pictures, charts, tables, diagrams, graphs, and models.	Communicate mathematical ideas and reasoning using the vocabulary of mathematics in a variety of ways e.g., using words, numbers, symbols, pictures, charts, tables, diagrams, graphs, and models.	Communicate mathematical ideas and reasoning using the vocabulary of mathematics in a variety of ways e.g., using words, numbers, symbols, pictures, charts, tables, diagrams, graphs, and models.
	Connect mathematics to the real world, as well as within mathematics.	Connect mathematics to the real world, as well as within mathematics.	Connect mathematics to the real world, as well as within mathematics.	Connect mathematics to the real world, as well as within mathematics.	Connect mathematics to the real world, as well as within mathematics.	Connect mathematics to the real world, as well as within mathematics.	Connect mathematics to the real world, as well as within mathematics.
	Create and use representations to organize, record, and communicate mathematical ideas.	Create and use representations to organize, record, and communicate mathematical ideas.	Create and use representations to organize, record, and communicate mathematical ideas.	Create and use representations to organize, record, and communicate mathematical ideas.	Create and use representations to organize, record, and communicate mathematical ideas.	Create and use representations to organize, record, and communicate mathematical ideas.	Create and use representations to organize, record, and communicate mathematical ideas.
	Solve and analyze routine and non-routine problems.	Solve and analyze routine and non-routine problems.	Solve and analyze routine and non-routine problems.	Solve and analyze routine and non-routine problems.	Solve and analyze routine and non-routine problems.	Solve and analyze routine and non-routine problems.	Solve and analyze routine and non-routine problems.