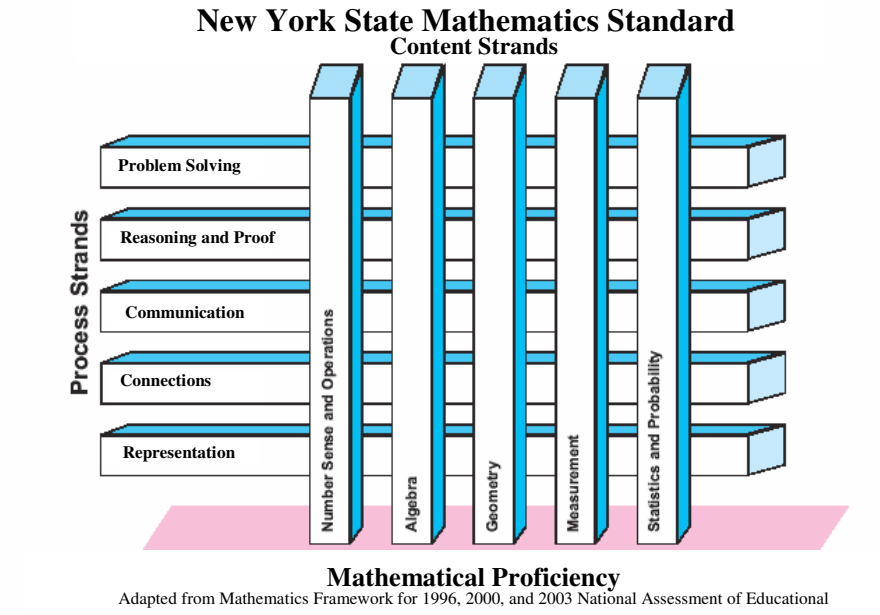
Curriculum Guide for Parents

Grade 2 Mathematics

The State of New York adopted a revised Mathematics curriculum in March of 2005. The format for the Mathematics *Curriculum Guide for Parents* below is based on their structure. The diagram from the NYS documentation demonstrates the relationship between the **Process Strands** and the **Content Strands**.



Process Strands

Problem Solving
Reasoning and Proof
Communication
Connections
Representation

The following performance indicators are included when helping students approach the **Process Strands**:

- explore, examine, and make observations about a social problem or mathematical situation
- interpret information correctly, identify the problem, and generate possible solutions
- formulate problems and solutions from everyday situations
- compare and discuss ideas for solving a problem with teacher and/or students to justify thinking (grade 1 and 2 only)
- explain situations verbally or by using objects
- use appropriate mathematical terms, vocabulary, and language
- use multiple representations, including: verbal and written language; acting out or modeling a situation; drawing and/or symbols as representations; to organize, record, and communicate mathematical ideas
- utilize literature and/or storytelling when problem solving

Problem solving strategies should be integrated into the curriculum throughout the year.

Content Strands

Number Sense and Operations

- Addition and Subtraction facts to 18 for mastery (quick recall)
- Understanding place value to 999
- Adding 3 numbers
- Fact families
- Examples of counting (2's, 5's, 10's, 3's and 4's)
- Counting on and counting back
- Odd and even numbers
- Ordinal numbers
- Compose and decompose 2 digit numbers
- Compare and order whole numbers to 1,000
- Addition and subtraction with/without regrouping
- Develop readiness for multiplication and division

Algebra

- Comparing numbers (>, <, =) to 100
- Describe and extend increasing or decreasing (+, -) sequences and patterns (numbers or objects up to 100)

Geometry

- Identification of plain geometric shapes
- Symmetry and congruence
- Moving shapes – slides, flips, turns
- Compose and decompose 2D shapes
- Group objects by like properties
- Nonstandard units
- Length
- Whole inches and whole feet
- Measurement tool: ruler
- Telling time to $\frac{1}{2}$ hour and 5 minute intervals
- Money
  - Know and recognize coins and bills
  - Counting to $1.00
  - Equivalent combinations to make $1.00
  - Dollar notation
  - Recognize $5, $10, $20 bills
- Mass – informal comparisons
- Select and use standard and non-standard units to estimate measurements

Statistics and Probability

- Formulate questions and collect and record data (using tallies)
- Display data in pictographs and bar graphs
- Compare data: similarities and differences
- Discuss conclusions and make predictions from graphs