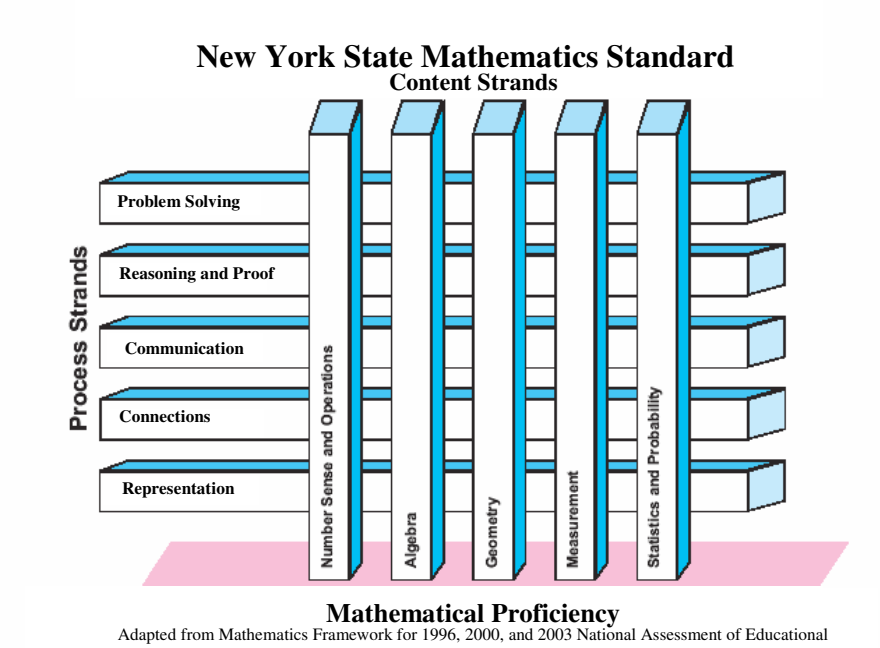
Curriculum Guide for Parents

Grade 1 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**.



Adapted from Mathematics Framework for 1996, 2000, and 2003 National Assessment of Educational

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
- 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

- Count 1-100, including starting from a number other than 1
- Skip count by 10's to 100
- Skip count by 5's to 50
- Skip count by 2's to 20
- Count backward from 20 - 1
- Arrange objects in size order
- Write numbers 1 - 100
- Read number words one – ten
- Explore and use place value
- Use words before, after, between
- Use and understand verbal terms first – twentieth
- Demonstrate fluency and apply addition and subtraction facts 1 - 10
- Use a variety of strategies to solve addition and subtraction problems with one and two digit numbers with regrouping
- Estimate the number in a collection to 50 and compare by counting actual items in collection

Algebra

- Determine and discuss patterns in arithmetic (what comes next)

Geometry

- Match shapes and parts of shapes to justify congruency
- Recognize, name, describe, create, sort and compare two and three dimensional shapes
- Experiment with slides, flips and turns of two dimensional shapes
- Recognize geometric shapes and structures in the environment

Measurement

- Recognize length as an attribute that can be measured
- Use non-standard units of measurement (finger length, paper clips) to measure vertical and horizontal lengths
- Explore the standard unit of inch
- Know vocabulary and recognize (penny, nickel, dime, quarter)
- Recognize cent notation
- Use combination of coins to make amounts to 25 cents
- Recognize terms – morning, noon, afternoon, evening
- Tell time to hour (digital, analog)
- Know months and days of week in sequence
- Classify months with seasons and other events
- Estimate measurements (standard and non-standard units)

Statistics and Probability

- Collect and record data related to a question
- Display data in simple pictographs for quantities up t o 20
- Display data in bar graphs using concrete objects
- Use Venn diagrams to sort and describe data
- Interpret data using terms most, least, greater than, less than and equal to
- Construct and answer questions related to displayed data (category with most, how many…)
- Understand terms likely and unlikely to make predictions