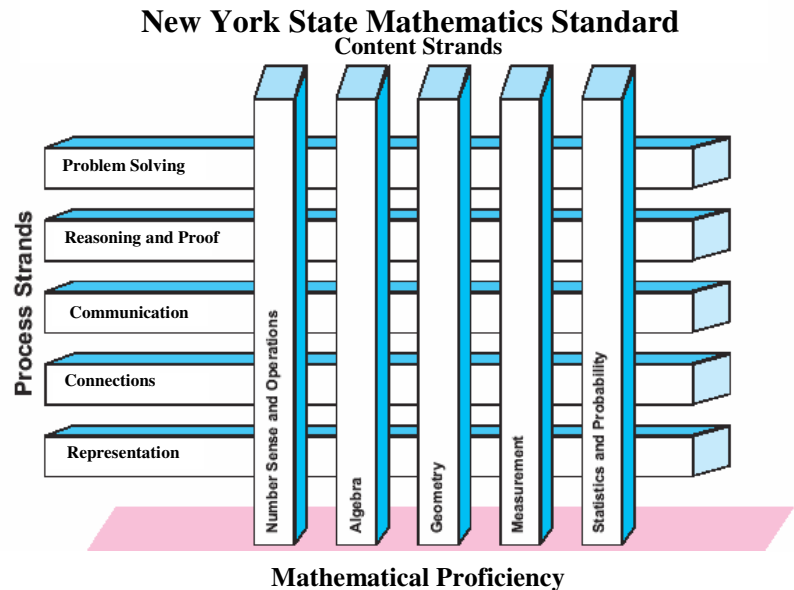


Curriculum Guide for Parents

Grade 5 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**:

- differentiate between relevant and irrelevant information when solving problems
- while there is more than one way to solve a problem, some are more efficient than others
- interpret information correctly, identify the problem, and generate solutions
- solve problems from everyday situations
- justify reasonableness of a solution to a problem by explaining verbally, in writing, numerically, and/or graphically
- support or verify thinking through examples and/or counter-examples
- accurately label work
- use appropriate mathematical language to explain or justify thinking and problem solving strategy

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

Content Strands

Number Sense and Operations

- Place value of whole numbers to millions and place value of decimals to thousandths
- Equivalent fractions and comparing and ordering fractions
- Concept of ratio and percent
- Factors and multiples
- Whole number operations for addition, subtraction, multiplication and division
- Decimal operations for addition, subtraction, multiplication and division
- Adding and subtracting fractions with like denominators
- Estimate and justify solutions by rounding to 10,000 (whole numbers) and nearest hundredth (decimals)

Algebra

- Translate simple verbal expressions into algebraic expressions
- Solve simple one step equations
- Create and explain algebraic and geometric patterns

Geometry

- Calculate perimeter
- Identify congruent and similar triangles and their corresponding sides
- Classify triangles and quadrilaterals by properties of their angles and sides
- Know the sum of the interior angles of a triangle and a quadrilateral
- Identify and draw lines of symmetry of geometric shapes
- Identify and plot points in the first quadrant on a coordinate plane

Measurement

- Identify customary and metric units of length and convert within a given system
- Calculate elapsed time in hours and minutes
- Measure and draw angles using a protractor
- Justify reasonableness of estimates
- Measure to nearest $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{8}$ inch

Statistics and Probability

- Collect and record data from a variety of sources and display data if appropriate in a line graph
- Calculate mean, median, and mode for a given set of data
- Formulate conclusions and make predictions from graphs
- List outcomes for a single event, record experimental results using fractions, and determine probability of a single event