

Sixth Grade Overview

Number Theory

- 1** *Patterns and sequences*
- 2** *Integers*
- 3** *Basic Operations (+, -, ×, ÷) with all rational numbers*
- 4** *Exponential notation with whole numbers including a^0 and a^{-x}*
- 5** *Square roots*
- 6** *Scale reading and interpreting*
- 7** *Ratio, proportion*
- 8** *Percent, simple interest, percent of change, discount, sales tax, and commission*
- 9** *Scientific Notation*

Geometry and Measurement

- 1** *Metric and Customary Measure for length, weight/mass, capacity/volume*
- 2** *Polygons and solid figures*
- 3** *Angles formed by intersecting lines*
- 4** *Congruence*
- 4** *Line and rotational symmetry*
- 5** *Similarity and congruence*
- 6** *Scale drawing and indirect measurement*
- 7** *Volume and Surface Area of one and two base figures and composite figures*
- 8** *Transformations*

Algebra

- 1** *Inverse operations*
- 2** *+ and – Number line*
- 3** *Comparison and Order of integers*
- 4** *Numerical and Algebraic expressions*
- 4** *Translating expressions into Algebra*
- 5** *Monomials*
- 5** *Coordinate pairs on the Cartesian Plane*
- 6** *Absolute Value*
- 7** *Symbols $\dot{<}, \geq, <, >, =, \neq, \simeq, \Pi$*
- 8** *One, two, and multi step equations with variables*
- 9** *One step inequalities with variables*
- 10** *Dependent and independent variables*
- 11** *Algebraic relations and functions*
- 12** *Variation, rate of change, and slope*
- 13** *Graphing linear equations*

Data Analysis and Probability

- 1** *Frequency and Cumulative frequency distributions*
- 2** *Statistical displays*
- 3** *Circle graphs, histograms, box and whisker plots*
- 3** *Measures of central tendency and variation*
- 4** *Theoretical and Experimental Probability*
- 4** *Counting Principal*
- 5** *Compound, Dependent and Independent events*