

Students will be able to: NUMBER SENSE AND OPERATIONS

- Compare, order, estimate, and translate among percents, decimals, and fractions. (*including percents less than 1% and greater than 100%*)
- Determine when an estimate rather than an exact answer is appropriate and apply in problem situations.
- Use number theory concepts (*GCF, LCM, prime factorization*) to solve problems.
- Estimate and calculate the sum, difference, product, or quotient of whole numbers, integers, fractions, and decimals.
- Evaluate numerical expressions using order of operations including positive exponents.
- Use ratios and proportions to solve problems. (*unit rates, scale drawings, indirect measurement etc.*)
- Estimate and determine percent of a number.
- Solve percent problems using proportions.
- Demonstrate an understanding of absolute value.

Students will be able to: PATTERNS, RELATIONS, AND ALGEBRA

- Apply order of operations when evaluating algebraic expressions for a given set of variable values.
- Translate verbal phrases or sentences into algebraic expressions or equations and vice versa.
- Solve one- and two-step equations (no distributive property) using inverse operations.
- Create a simple function table (given x values) from an equation and graph.

Students will be able to: GEOMETRY

- Determine whether figures are congruent or similar and use these relationships to solve problems.
- Plot ordered pairs of numbers on a coordinate plane using all four quadrants.
- Predict and draw translations and reflections of objects in the coordinate plane.
- Identify properties of three-dimensional geometric shapes and draw nets. (*prisms and pyramids*)
- Use a ruler, protractor, and compass to draw polygons and circles.
- Identify angle patterns in parallel and perpendicular lines, cut by a transversal.

Students will be able to: MEASUREMENT

- Convert from one unit of measure to another within the same system.
- Calculate perimeter and area of two-dimensional figures (including trapezoids) using the appropriate formulas.
- Calculate the circumference and area of a circle using the appropriate formula.
- Calculate the surface area and volume of rectangular prisms and cylinders.
- Given formulas, convert from one system of measurement to another.

Students will be able to: DATA ANALYSIS, STATISTICS, AND PROBABILITY

- Calculate and interpret the mean, median, mode, and range for a set of data.
- Construct and interpret bar graphs, histograms, and stem-and-leaf plots to describe data sets.
- Compute the probability of simple compound events using a tree diagram, table, or organized list.
- Find the probability of an event with one or more equally likely outcomes.