6-Numbers

Standards 6.NS.4, 6.NS.5, 6.NS.6, 6.NS.7, 6.NS.8,

Resources Textbook: iXL

Competencies

- A successful student can apply number sense and mathematical operations within number systems to solve problems.

I can

- **I can** I can identify rational numbers and their opposites
- **I can** compare and order integers, absolute values, & rational numbers.
- **I can** identify and use the greatest common factor of two whole numbers less than or equal to 100.
- **I can** identify and use the least common multiple of whole numbers less than or equal to 12.
- **I can** classify rational numbers.
- **I can** identify and locate absolute values and their opposites on a number line.

Vocab

Content: positive numbers, negative numbers, opposites, integers, inequality, absolute value, greatest common factor (GCF), least common multiple (LCM), rational number, Venn diagram
Academic: identify, recognize, understand, arrange, analyze, compare, order, interpret, explain, write, distinguish, find, use, critique, draw conclusions, differentiate, classify, describe, position, solve, represent

6-Numbers (fractions & decimals)

Standards

6.NS.1, 6.NS.2, 6.NS.3, 6.NS.4

Resources

Textbook:
iXL

Competencies

- A successful student can apply number sense and mathematical operations within number systems to solve problems.

I can

- **I can** apply GCF and LCM to evaluate operations with fractions.
- **I can** divide a fraction by a fraction.
- **I can** divide mixed numbers by a fraction.
- **I can** evaluate real-world problems using fraction operations.
- I **can** divide whole numbers using an algorithm.
- **I can** fluently add and subtract decimals.
- **I can** fluently multiply decimals.
- **I can** fluently divide decimals.
- I **can** evaluate multi-step real world problems involving fraction operations.

Vocab

Content: reciprocals, order of operations, quotient, algorithm,
Academic: understand, find, use, critique, draw conclusions, differentiate, apply, interpret, compute, solve, connect, perform, demonstrate, determine, calculate,

6-Proportionality: Ratios & Rates

Standards 6.RP.1, 6.RP.2, 6.RP.3, 6.NS.1

Resources Textbook: iXL

Competencies

- A successful student can understand and analyze proportional relationships and use them to make sense of and solve problems.
- A sucessful student can apply number sense and mathematical operations within number systems to solve problems.

I can

- **I can** use ratios to compare two quantities.
- **I can** use rates to compare quantities..
- **I can** I can use ratios and rates to make comparisons and predictions..
- **I can** represent real-world problems involving ratio and rates with tables and graphs.
- **I can** use ratios to convert units of measurement.
- **I can** write a ratio as a percent.
- **I can** represent percents as equivalent fractions and decimals.
- **I can** find a percent of a quantity.

Vocab

Content: equivalent ratios, ratio, rate, unit rate, proportion, scale, scale drawing, conversion factor, percent, equivalent fractions

Academic: describe, compare, analyze, critique, use, demonstrate, understand, solve, reason, make tables, find values, plot, find, convert, manipulate, transform, represent, relate, show, apply, write, recall, explain, interpret, compute

6-Equivalent Expressions

Standards

6.EE.1, 6.EE.2, 6.EE.3

Resources

Textbook:
iXL

Competencies

- A successful student can create, interpret, use and analyze patterns of algebraic structures to make sense of problems.

I can

- **I can** write and evaluate expressions using exponents.
- **I can** decompose composite numbers into prime factors.
- **I can** evaluate expressions that include exponents, using order of operations.
.-**I can** write algebraic expressions.
- **I can** evaluate algebraic expressions.
- **I can** generate equivalent expressions.

Vocab

Content: base, exponent, power, prime number, composite number, factors, prime factorization, order of operations, algebraic expression, constant, variable, substitution, evaluating, combine

Academic: revaluate, write, arrange, decompose, break apart, compute, perform, record, substitute, model, synthesize, evaluate, solve, generate, create, apply, combine, identify

6-Equations & Inequalities

Standards 6.EE.2, 6.EE.6, 6.EE.7, 6.EE.8, 6.NS.8

Resources Textbook: iXL

Competencies

- A successful student can create, interpret, use and analyze patterns of algebraic structures to make sense of problems.
- A successful student can understand and analyze proportional relationships and use them to make sense of and solve problems.
- A successful student can apply number sense and mathematical operations within number systems to solve problems.

I can

- **I can** use substitution to determine if a given value makes an equation true.
- **I can** solve addition and subtraction: one-step equations using inverse operations..
- **I can** write an inequality to represent constraints to solutions.
- **I can** locate and graph points in all four quadrants.
- **I can** identify dependent and independent variables in tables and graphs.
- **I can** generate an equation using data from a table or graph.
- **I can** represent algebraic relationships in tables and graphs.

Vocab

Content: equation, solution, identity, substitution, Addition Property of Equality, Subtraction Property of Equality, Multiplication Property of Equality, Division Property of Equality, solution of an inequality, constraint, condition, axes, coordinate plane, coordinates, ordered pair, dependent variable, independent variable, pattern, solution

Academic: write, determine, represent, substitute, synthesize, evaluate, perform, order, understand, use, describe, solve, computer, create, reason, develop, identify, locate, graph, find, correlate, analyze, utilize, express, generate

6-Relationships in Geometry

Standards 6.G.1, 6.G.2, 6.G.4, 6.NS.8

Resources Textbook: iXL

Competencies

- A successful student can prove, understand and model geometric concepts using appropriate tools and theorems to solve problems and apply logical reasoning
- A successful student can apply number sense and mathematical operations within number systems to solve problems.

I can

- **I can** calculate the area of quadrilaterals..
- **I can** calculate the area of triangles.
- **I can** calculate the area of polygons by utilizing decomposition.
- **I can** find the distance between two points on a coordinate plane.
- **I can** determine the area of polygons on a coordinate plane by using decomposition.
- **I can** find the surface area of a 3-dimensional figure using nets made up of rectangles and triangles.
- **I can** find the surface area of a 3-dimensional figure using nets made up of rectangles and triangles.
- I **can** find the volume of right rectangular prisms with fractional edge-lengths.

Vocab

Content: unit square, area, parallelogram, rhombus, trapezoid, triangle, right angle, diagonal, base, height, face, decompose, decomposition, polygon, reflection, origin, axis, point, quadrant, coordinate plane, polygon, vertex, nets, area, surface area, pyramid, prism, base, height, unit cube, volume, edge
Academic: calculate, find, compose, decompose, apply, solve, solve, use, coordinate, compute, determine, understand, substitute, deconstruct, construct, write, read, evvaluate,, identify, describe, perform, order

6-Measurement & Data

Standards 6.SP.3, 6.SP.4,

Resources Textbook:
iXL

Competencies

- A successful student can use a variety of data analysis and statistics strategies to analyze, develop and evaluate inferences based on data.

I can

- **I can** find measures of center given a set of data.
- **I can** use a box plot to to describe a data set.
- **I can** summarize and display data using a dot plot.
- **I can** display data in a histogram.

Vocab

Content: mean, median, mode, measure of center, range, quartile, median, lower quartile, upper quartile, box plot, interquartile range (IQR), measure of spread, dot plot, outliers, statistical question, histogram, interval
Academic: find, calculate, recognize, summarize, describe, display, show, represent