Pathways learn menu

6th Grade

1_Rational Number Operations

- Ordering and Converting
  - Classifying numbers
  - Mixed-improper
  - Convert fractions to decimals, PART 1
  - Convert fractions to decimals, PART 2
  - Percents to decimals, reverse
  - Ordering numbers
- Fractions and Decimals
  - Multiplying fractions
  - Dividing fractions
  - Adding/subtracting decimals
  - Multiplying decimals
  - Dividing decimals
- Integers
  - Absolute value
  - Adding and subtracting integers with manipulatives
  - Adding and subtracting integers with strategies
  - Multiply and divide integers

2_Equations and Inequalities

- Expressions
  - Exponents
  - Prime factorization
  - Order of operations
- Properties
  - Properties
  - Distributive property
  - Equivalent expressions using properties
- Equations
  - Solve addition/subtraction equations
  - Solve multiplication/division equations
  - Equation word problems

Pathways learn menu

- Inequalities
  - Inequality basics
  - Solve inequality models
  - Solve inequalities
  - Negative inequalities
  - Inequality word problems

3_Proportions and Percents
- Proportions
  - Ratios and rates
  - Creating proportions
  - Solve using unit rates
  - Solve using relationships
  - Solve using cross multiplication
- Measurement Conversions
  - Forming measurement proportions
  - Solving measurement conversions
- Percents
  - Solve for the percent using models
  - Solve for the percent in word problems
  - Solve for the part
  - Solve for the whole

4_Linear Relationships
- Graphing coordinate points
  - Components of a coordinate grid
  - Graphing coordinate points
- Linear Equations
  - Independent v.s dependent quantities (tables and graphs)
  - Additive relationships in tables part 1
  - Additive relationships in tables part 2
  - Additive relationships in graphs
  - Multiplicative relationships in tables part 1
  - Multiplicative relationships in tables part 2
  - Multiplicative relationships in graphs

Pathways learn menu

5_Geometry
- Triangles
  - Triangle properties
  - Solve for missing angles
- Area
  - Area of rectangles/parallelograms
  - Area of triangles/ decomposing a rectangle
  - Area of a trapezoid/ decompose triangles and rectangles
  - Area equations
- Volume
  - Volume basics
  - Solving for volume
  - Missing dimensions in volume

6_Data
- Numeric Data
  - Mean
  - Median
  - Range
  - Interquartile range
  - Data from a dot plot
  - Data from a stem and leaf plot
  - Data from a box plot
- Categorical Data
  - Mode in graphs (histograms)
  - Percents in bar graphs/frequency tables

7th Grade
1_Rational Number Operations
- Fractions
  - Mixed and improper
  - Addition/subtraction fractions
  - Multiplication/division fractions
- Decimals
  - Addition/subtraction decimals

Pathways learn menu

- Multiplication/division decimals
- Integers
  - Add/subtract integers
  - Multiply/divide integers
- Word Problems
  - Word problems

2_Equations & Inequalities:
- Equations
  - Models and solve 2 step equations
  - Solve 2 Step Equations
- Inequalities
  - Substitution with inequalities
  - Solve and graph
- Eequation/Inequalities word problems
  - Create equations from word problems
  - Matching Equations from Word Problems
  - Create inequalities from word problems
  - Matching Inequalities from Word Problems

3_Proportions & Percents:
- Proportions
  - Creating a proportion
  - Solving proportions using relationships
  - Solving proportions using cross multiply
  - Measurement Conversions
  - Similar Shapes
- Percents
  - Solving percents
  - Tax, tip, discounts
  - Percents in Graphs
  - Percent of change

4_Linear Relationships
- Constant rate of change
  - Constant rate of change in tables and graphs

Pathways learn menu

- Linear equations
    - Slope and y-intercept
    - Linear equations from tables
    - Linear equations from graphs

5_Probability:
- Combinations
    - Combinations
- Probability
    - Simple probability
    - Compound probability
    - Predicitions

6_Geometry:
- Angles
    - Angles
    - Triangles
- Area
    - Area of 2D Shapes
    - Area of circles
    - Area of semi and quarter circles
    - Composite figures
    - Circle circumference
- Surface Area
    - Total surface area
    - Lateral surface area
- Volume
    - Volume of prisms
    - Volume of pyramids

7_Data & Finance:
- Graphing
    - Mean, median, mode, range
    - Comparing box plots
    - Comparing dot plots
- Finances

Pathways learn menu

- ○ Net worth
- ○ Simple interest
- ○ Compound interest

8th Grade
1_Real Number Operations
- Real number operations
    - ○ Number conversions (fraction, decimal, percent)
    - ○ Exponents, Square roots and exponents
    - ○ Real number system
    - ○ Scientific notation
- Ordering numbers
    - ○ Order numbers

2_Equations
- Equations
    - ○ Write an equation from a model
    - ○ Combining like terms/preparing the equation
    - ○ Solving equations
- Word problems
    - ○ Write equations/inequalities from word problems

3_Linear Relationships
- Proportional relationships
    - ○ Proportional v.s non proportional relationships in tables
    - ○ Proportional v.s non proportional relationships in graphs
- Linear equations
    - ○ Slope in tables
    - ○ Slope in graphs
    - ○ Y-intercept in graphs
    - ○ Y-intercept in tables
    - ○ Y=mx+b in graphs
    - ○ y=mx+b in tables
    - ○ Identifying functions

4_Pythagorean Theorem

Pathways learn menu

- Pythagorean theorem
    - Solve pythagorean theorem
- Pythagorean application
    - Pythagorean to solve for area/perimeter

5_Transformations
- Trasnformations
    - Translations
    - Reflections
    - Rotations
- Dilations/scale factor
    - Dilations

6_Geometry
- Volume
    - Volume of cylinders
    - Volume of cones
    - Volume of spheres
- Surface area
    - Total surface area of prisms
    - Lateral surface area of prisms
    - Total surface area of cylinders
    - Lateral surface area of cylinders

7_Data and Finance
- Data
    - Mean Absolute Deviation
    - Create a scatterplot
    - Use trend lines to predict
- Interest
    - Simple interest
    - Compound interest
    - Compare simple and compound interest