Ignite! MATH
Curriculum Topics

Ignite! Math is an engaging, standards-aligned middle-school curriculum that powerfully combines learning with technology, presenting animated and interactive media in tandem with comprehensive print materials, assessment questions, and problem-solving activities.

Foundations Review

Place Value, Comparing, and Ordering
- Place Value (Whole Numbers)
- Place Value (Decimal Numbers)
- Place Value (Rounding)
- Negative Numbers

Properties of Numbers
- Introducing the Commutative, Associative, and Distributive Properties
- The Commutative and Associative Properties
- The Distributive Property

Whole Numbers
- Fact Families
- Introducing Multiplication
- Estimation
- Problem Solving

Fractions, Decimal Numbers, and Percents
- Introducing Fractions, Decimal Numbers, and Percents
- Equivalent Values with Visual Models

Equations, Functions, and Function Models
- Introducing Variables
- Representations of Data

Geometric Properties
- Introducing Vertices, Edges, and Faces
- Right, Acute, Obtuse, and Straight Angles
- Circles

Graphing and Transformation
- Number Lines
- Transformations
- Transformations and Symmetry
- Transformations and Congruency

Displaying and Interpreting Data, Graphing
- Displaying Data
- Interpreting Graphs
- Problem Solving with Graphs

Measuring Temperature and Time
- Measuring Temperature
- Measuring Time with Calendars

Measuring Weight and Capacity
- Understanding Weight and Mass
- Measuring Weight
- Measuring Capacity

Solving Problems Using Measurement
- Measuring Length
- Measuring Perimeter

Probability
- Predictions
- Visualizing Patterns

Ignite! Math Course 5

Place Value, Comparing, and Ordering
- Place Value (Whole Numbers)
- Place Value (Decimal Numbers)
- Rounding Numbers
- Negative Numbers
- FLIPS

Properties of Numbers
- Commutative Property
- Associative Property
- Distributive Property
- Equality Property

Whole Numbers
- Factors
- Fact Families (Multiplication and Division)
- Multiplication
- Division
- Long Division
- Notation
- Estimation
- Prime Numbers and Fact Families (Multiplication and Division)
- FLIPS

Fractions, Decimal Numbers, and Percents
- Equivalent Fractions, Decimal Numbers, and Percents
- Ordering Fractions
- Visual Models and Fractions
- Fractions on a Number Line
- Decimal Numbers (Addition and Subtraction)
- Decimal Numbers (Multiplication)
- Decimal Numbers (Division)
- Fractions (Addition)
- Fractions (Subtraction)
- Introduction of Multiplication and Division of Fractions
- Fractions (Multiplication)
- Fractions (Division)
- Fractions, Decimal Numbers, and Percents (Ordering)
- Fractions, Decimal Numbers, and Percents
- FLIPS

Patterns, Relationships, and Algebraic Thinking
- Introduction to Algebraic Thinking
- Patterns and Relationships

Geometric Properties
- Polygons and Solids (Definitions)
- Angles
- Lines
- Circles

Graphing and Transformation
- Visual Models and Ordering
- Geometric Transformations (Definitions)
- Modeling Geometric Transformations
- Geometric Transformations and Symmetry
- Geometric Transformations and Congruency

Graphing, Displaying, and Interpreting Data
- Graphing Data
- Graph Selection
- Bar Graph Creation
- Line Graph Creation
- Graphed Data Definitions
- Graphs and Problem Solving

Modeling Probability
- Experiments in Probability
- Modeling Probability
- Experiments and Predictions

Time and Measurement
- Measuring and Comparing Temperature
- Measuring Time with Analog Clocks
- Measuring Elapsed Time
- Measuring Time with Calendars
- FLIPS

Solving Problems Using Measurement
- Estimating and Measuring Weight
- Measuring Length
- Measuring Perimeter
- Measuring Area
- Estimating and Measuring Capacity
- Estimating and Measuring Volume of Solids
- Understanding Capacity and Volume
- Measurement Systems
- FLIPS

*FLIPS (Future Leaders in Problem Solving): FLIPS enrichment activities provide opportunities for critical thinking, collaborative learning, developing fluencies, and further development of complex concepts.

Ignite! Math Course 6

Place Value, Comparing, and Ordering
- Decimal Numbers
- Decimal Numbers on a Number Line
- Factors
- Common Multiples
- Prime and Composite Numbers
- Prime Factorization

Numbers
- Introducing Equivalent Fractions
- Equivalent Fractions
- Whole Numbers, Fractions, Decimal Numbers, and Percents
- Using Ratios
- Problem-Solving with Proportions
- Introducing Perfect Square Numbers and Square Roots
- Commutative, Associative, and Distributive Properties
- Addition and Subtraction with Fractions
- Reviewing Multiplication
- Reviewing Division
- Introducing Multiplication with Fractions
- FLIPS

Problem Solving and Operations
- Introducing Order of Operations
- Order of Operations
- Modeling Operations
- Benchmark Strategies
- Mathematical Conjectures

Patterns and Relationships
- Fact Families
- Combinations

Patterns, Relationships, and Algebraic Thinking
- Patterns in the World
- Understanding Sequence
- Representations of Ratios and Percents
- Proportions
- Ratios and Proportions
- Problem Solving
- FLIPS

Displaying and Interpreting Data, Graphing
- Patterns of Change
- Coordinate Graphs

Geometric Properties
- Geometry Around Us
- Introducing Angles
- Angle Relationships in Polygons
- Geometric Shapes
- Geometric Shapes on a Coordinate Grid

Geometric Measurement
- Perimeter
- Polygons with n > 4 Sides
- Circles
- Areas of Polygons
- Area of Circular Shapes
- Introducing Volume

Solving Problems Using Measurement
- Reading Data
- Graphing Data
- Geometric Formulas
- FLIPS

Probability
- Sample Spaces
- A Simple Event and Its Complement
- Representations of Data
- Circle Graphs
- Introducing Mean, Median, Mode, and Range
- Mean, Median, Mode, and Range

Ignite! Math Course 7

Place Value, Comparing, and Ordering
- Decimal Numbers
- Decimal Numbers on a Number Line
- Comparing Rational Numbers in Scientific Notation

Numbers
- Scale Factor Between Equivalent Ratios
- Whole Numbers, Fractions, Decimal Numbers, and Percents
- Positive and Negative Rational Numbers on a Number Line
- Using Ratios
- Problem-Solving with Proportions
- Squares, Perfect Squares, and Square Roots
- Commutative, Associative, and Distributive Properties
- Understanding Addition and Subtraction with Decimal Numbers
- Understanding Multiplication and Division with Decimal Numbers
- Understanding Addition and Subtraction with Fractions
- Addition with Fractions
- Subtraction with Fractions
- Understanding Multiplication and Division with Fractions
- Multiplication with Fractions
- Division with Fractions
- FLIPS

Problem Solving and Operations
- Introducing Order of Operations
- Order of Operations
- Modeling Operations
- Benchmark Strategies

Patterns and Relationships
- Patterns and Relationships
- Mathematical Relationships

Patterns, Relationships, and Algebraic Thinking
- Patterns in the World
- Understanding Sequence
- Representations of Ratios and Percents
- Proportions
- Ratios and Proportions
- Problem Solving

Displaying and Interpreting Data, Graphing
- Patterns of Change
- Dependent and Independent Variables
- Coordinate Graphs
- Depictions of Data

Geometric Properties
- Introducing Angles
- Rigid Transformations
- Geometry and Transformation
- Geometric Shapes
- Transformations and Coordinate Planes
- Introducing Polyhedra
- Views and Nets of Polyhedra
- Triangles
- Quadrilaterals
- FLIPS

Geometric Measurement
- Perimeter
- Polygons with n > 4 Sides
- Circles
- Areas of Polygons
- Area of Circular Shapes
- Surface Area of Polyhedra
- Surface Area of Circular Objects
- Volume
- Similar Figures
- Similar Figures by Ratio and Proportion

Solving Problems Using Measurement
- Graphing Data
- Geometric Formulas
- Measurement Systems

Probability
- Experimental Probability
- Graphs
- Introducing Mean, Median, Mode, and Range
- Mean, Median, Mode, and Range
- FLIPS

Enrichment Activities: Prime Solutions
- Test Taking Strategies
- Order of Operations
- Measurement Conversions
- Fractions, Decimal Numbers, and Percents

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Transforming Classroom Curriculum