

## Ignite! Math Course 4

### Place Value

Reading and Writing Numbers  
 Comparing and Ordering Numbers  
 Recognizing Decimal Numbers to the Tenths and Hundredths Place  
 Rounding Numbers  
 Number Line

### Whole Numbers

Factoring Numbers  
 Fact Families (Addition, Subtraction, Multiplication, and Division)  
 Estimating  
 Notations and Prime Numbers  
 Multiplication and Division Solution Strategies  
 Commutative, Associative, and Distributive Properties

### Fractions, Decimal Numbers and Percents

Visualizing Fractions with Models  
 Equivalent Fractions  
 Fractions on a Number Line  
 Working with Decimal Numbers and Percents

### Patterns, Relationships and Algebraic Thinking

Thinking Algebraically  
 Recognizing Patterns and Relationships

Geometric Properties  
 Recognizing and Working with Solids  
 Polygons  
 Angles (including Right, Acute, and Obtuse Angles)  
 Lines (Parallel and Perpendicular)

### Graphing and Transformation

Using Visual Models  
 Geometric Translations  
 Symmetry  
 Congruency

### Displaying and Interpreting Data, Graphing

Graphing, Interpreting, and Solving Problems with Data  
 Pictographs  
 Bar Graphs  
 Line Graphs  
 Venn Diagrams

### Probability

Modeling Probability with Experiments  
 Making Predictions

### Time and Measurement

Measuring and Comparing Temperature  
 Measuring Time with Analog Clocks  
 Elapsed Time  
 Measuring Time with Calendars

### Solving Problems Using Measurement

Estimating and Measuring Weight  
 Capacity  
 Perimeter  
 Length  
 Area  
 Volume  
 Selecting Appropriate Measurement Tools

## Ignite! Math Course 5

### Place Value, Comparing, and Ordering

Place Value (Whole Numbers)  
 Place Value (Decimal Numbers)  
 Rounding Numbers  
 Negative Numbers

### Properties of Numbers

Commutative Property  
 Associative Property  
 Distributive Property

### Whole Numbers

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

### 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

### 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

### Solving Problems Using Measurement

Estimating and Measuring Weight  
 Estimating and Measuring Capacity  
 Measuring Perimeter  
 Measuring Length  
 Measuring Area  
 Estimating and Measuring Volume of Solids  
 Measurement Systems

## Draft, Topics Subject to Change

**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

**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

**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  
 Introducing Volume

**Solving Problems Using Measurement**

Reading Data  
 Graphing Data  
 Geometric Formulas

**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

**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

**Problem Solving and Operations**

Introducing Order of Operations  
 Order of Operations  
 Modeling Operations  
 Benchmark Strategies

**Patterns and Relationships**

Fact Families  
 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

**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

**Draft, Topics Subject to Change**