

# **Section B: Year at a Glance**



# Mathematics

## Year at a Glance

### Kindergarten

#### Quarter 1

Unit of Study 1.1: Understanding Spatial Relationships Using Location and Position, 10 days

Unit of Study 1.2: Composing and Decomposing Numbers to 12, 10 days

Unit of Study 1.3: Understanding the Magnitude of Numbers 0 - 20, 10 days

Unit of Study 1.4: Sort/Classify Shapes, 10 days

#### Quarter 2

Unit of Study 2.1: Identifying and Extending Patterns, 10 days

Unit of Study 2.2: Measuring Time and Comparing Length and Height, 5 days

Unit of Study 2.3: Comparing Whole Numbers, 10 days

Unit of Study 2.4: Understanding the Value of Pennies and Dimes, 5 days

Unit of Study 2.5: Compose/Decompose Shapes, 10 days

#### Quarter 3

Unit of Study 3.1: Data and Graphing, 10 days

Unit of Study 3.2: Using Fractions to Describe Equal Sized Parts or Sets, 10 days

Unit of Study 3.3: Comparing Whole Numbers to Benchmarks of 5 and 10, 5 days

Unit of Study 3.4: Using 2-Dimensional Geometry, 10 days

Unit of Study 3.5: Describe and Compare Length, Height, Weight, Temperature, and Capacity, 5 days

#### Quarter 4

Unit of Study 4.1: Making and Revising Estimates, 5 days

Unit of Study 4.2: Measuring Time Using a Calendar and Sequencing Events, 5 days

Unit of Study 4.3: Using Attributes to Classify and Sort Polygons, 5 days

Unit of Study 4.4: Adding Whole Numbers to 10, 10 days

Unit of Study 4.5: Subtracting Whole Numbers to 10, 10 days

Unit of Study 4.6: Representing and Extending Patterns in a Variety of Formats, 5 days

## Grade 1

### Quarter 1

Unit of Study 1.1: Ordering and Comparing Whole Numbers to 30, 10 days

Unit of Study 1.2: Composing and Decomposing Numbers up to 30, 10 days

Unit of Study 1.3: Using Benchmark Numbers of 5, 10, 25, 5 days

Unit of Study 1.4: Identifying and Applying Calendar Patterns to Tell Time, 5 days

Unit of Study 1.5: Extending Non-Numeric Patterns, 5 days

Unit of Study 1.6: Collecting and Organizing Data, 5 days

### Quarter 2

Unit of Study 2.1: Collecting, Organizing, and Interpreting Data, 10 days

Unit of Study 2.2: Adding Numbers to 30 without Regrouping, 10 days

Unit of Study 2.3: Subtracting Numbers to 30 without Regrouping, 10 days

Unit of Study 2.4: Identifying, Extending, and Applying Non-Numeric and Numeric Patterns, 5 days

Unit of Study 2.5: Comparing and Ordering Whole Numbers to 100, 5 days

### Quarter 3

Unit of Study 3.1: Measuring and Comparing Length, Height, Weight, Temperature, and Capacity, 10 days

Unit of Study 3.2: Telling Time to the Hour and Half Hour, 5 days

Unit of Study 3.3: Investigating 2-D Geometrical Shapes, 8 days

Unit of Study 3.4: Investigating 3-D Geometrical Shapes, 8 days

Unit of Study 3.5: Using Location and Position, 4 days

Unit of Study 3.6: Adding Like Coins, 5 days

### Quarter 4

Unit of Study 4.1: Developing the Concept of Equality, 10 days

Unit of Study 4.2: Determining Likely or Unlikely Events, 10 days

Unit of Study 4.3: Using Fractions as a Part of a Whole, 10 days

Unit of Study 4.4: Using Addition and Subtraction Strategies for Facts, 10 days

**Grade 2****Quarter 1**

Unit of Study 1.1: Understanding Whole Numbers from 0-199, 10 days

Unit of Study 1.2: Composing and Decomposing Whole Numbers, 10 days

Unit of Study 1.3: Understanding Properties of Addition and Equality, 5 days

Unit of Study 1.4: Solving Problems Involving Combinations, 10 days

Unit of Study 1.5: Identifying and Extending Patterns, 5 days

**Quarter 2**

Unit of Study 2.1: Understanding Place Value in 2- and 3-Digit Numbers, 10 days

Unit of Study 2.2: Using Addition Strategies, 7 days

Unit of Study 2.3: Using Subtraction Strategies, 8 days

Unit of Study 2.4: Probability and Data, 10 days

Unit of Study 2.5: Identifying Attributes and Shapes, 5 days

**Quarter 3**

Unit of Study 3.1: Fractions to Fourths, 10 days

Unit of Study 3.2: 2-Digit Addition, 5 days

Unit of Study 3.3: 2-Digit Subtraction, 5 days

Unit of Study 3.4: Using Addition and Subtraction Strategies to Solve Two-Digit Problems, 5 days

Unit of Study 3.5: 2-Dimensional Geometry, 10 days

Unit of Study 3.6: Measuring Perimeter and Area, 5 days

**Quarter 4**

Unit of Study 4.1: Collecting, Organizing, and Analyzing Data, 10 days

Unit of Study 4.2: Solving Problems with Money up to \$1.99, 10 days

Unit of Study 4.3: 3-D Geometry, 5 days

Unit of Study 4.4: Measuring Length and Area, 7 days

Unit of Study 4.5: Measuring Time and Temperature, 8 days

## Grade 3

### Quarter 1

Unit of Study 1.1: Place Value: Compare and Order 0-999, 10 days

Unit of Study 1.2: Adding Whole Numbers, 6 days

Unit of Study 1.3: Subtracting Whole Numbers, 7 days

Unit of Study 1.4: Adding and Subtracting Decimals Using Money, 7 days

Unit of Study 1.5: Linear and Non-Numeric Patterns, 10 days

### Quarter 2

Unit of Study 2.1: Analyzes and Interprets Data, 5 days

Unit of Study 2.2: Collects, Organizes, Displays, and Describes Data, 15 days

Unit of Study 2.3: Properties and Attributes of 2-D Shapes, 5 days

Unit of Study 2.4: Congruency and Symmetry of 2-D Shapes, 5 days

Unit of Study 2.5: Spatial Relationships (Location, Position, Area, Perimeter), 10 days

### Quarter 3

Unit of Study 3.1: Developing Understanding of Multiplication, 10 days

Unit of Study 3.2: Applying Properties of Multiplication, 10 days

Unit of Study 3.3: Compare and Identify Fractions, 10 days

Unit of Study 3.4: Relating Fractions to Decimals Using Money, 10 days

### Quarter 4

Unit of Study 4.1: Measuring Length, Capacity, Mass, and Weight, 10 days

Unit of Study 4.2: Properties and Attributes of 3-D Shapes, 10 days

Unit of Study 4.3: Measuring Time and Temperature, 10 days

Unit of Study 4.4: Probability (Likelihood of Outcomes), 10 days

**Grade 4****Quarter 1**

Unit of Study 1.1: Understanding Place Value and Comparing and Ordering Whole Numbers through 999,999, 10 days

Unit of Study 1.2: Problem Solving Using Addition and Subtraction, 10 days

Unit of Study 1.3: Problem Solving Using Patterns, Combinations, and Permutations, 10 days

Unit of Study 1.4: Equivalence in Expressions, 5 days

Unit of Study 1.5: Measuring Length Using Customary and Metric Units, 5 days

**Quarter 2**

Unit of Study 2.1: Relationships Between Multiplication and Division, 10 days

Unit of Study 2.2: Understanding Positive Fractional Numbers, 5 days

Unit of Study 2.3: Adding and Subtracting Fractions, 5 days

Unit of Study 2.4: Understanding Decimals, 5 days

Unit of Study 2.5: Part to Whole Probability, 5 days

Unit of Study 2.6: Spatial Reasoning and Visualization of 2-D and 3-D, 10 days

**Quarter 3**

Unit of Study 3.1: Identifying and Describing 2-D and 3-D Figures, 10 days

Unit of Study 3.2: Multiplying by Two-Digit Numbers, 5 days

Unit of Study 3.3: Area and Perimeter of Rectangles and Polygons, 5 days

Unit of Study 3.4: Linear and Non-Linear Relationships, 10 days

Unit of Study 3.5: Analyzing, Organizing, and Displaying Data, 10 days

**Quarter 4**

Unit of Study 4.1: Measuring Time and Temperature, 7 days

Unit of Study 4.2: Writing and Evaluating Simple Algebraic Expressions, 10 days

Unit of Study 4.3: Measuring Capacity, Mass, and Weight and Making Conversions, 7 days

Unit of Study 4.4: Designing an Investigation, 10 days

Unit of Study 4.5: Solving Measurement Problems Using Conversions, 6 days

## Grade 5

### Quarter 1

Unit of Study 1.1: Understanding Place Value, 14 days

Unit of Study 1.2: Multiplication of Whole Numbers, 10 days

Unit of Study 1.3: Division with One-Digit and Two-Digit Divisors, 10 days

Unit of Study 1.4: Problem Solving Using Multiplication and Division, 6 days

### Quarter 2

Unit of Study 2.1: Identifying and Classifying Angles and Shapes, 10 days

Unit of Study 2.2: Measuring and Area, Perimeter, 10 days

Unit of Study 2.3: Ordered Pairs, 4 days

Unit of Study 2.4: Properties, Attributes, and Visualizing 3-D Figures, 11 days

Unit of Study 2.5: Measuring Volume of Rectangular Prisms, 5 days

### Quarter 3

Unit of Study 3.1: Understanding, Ordering, and Comparing Fractions, Decimals, and Percents, 15 days

Unit of Study 3.2: Adding and Subtracting Fractions, 8 days

Unit of Study 3.3: Adding and Subtracting Decimals, 7 days

Unit of Study 3.4: Organizing and Collecting Data, 3 days

Unit of Study 3.5: Interpreting and Analyzing Data, 7 days

### Quarter 4

Unit of Study 4.1: Writing and Solving Algebraic Expressions, 10 days

Unit of Study 4.2: Measuring Customary and Metric Units Including Time and Temperature, 5 days

Unit of Study 4.3: Linear Relationships and Constant Rate of Change, 10 days

Unit of Study 4.4: Describing Transformations, Congruency, and Symmetry, 8 days

Unit of Study 4.5: Statistical Probability, 7 days

**Grade 6****Quarter 1**

Unit of Study 1.1: Estimating/Mental Computation, 4 days

Unit of Study 1.2: Properties of Numbers, 9 days

Unit of Study 1.3: Order of Operations, 7 days

Unit of Study 1.4: Understanding Decimals, 4 days

Unit of Study 1.5: Multiplying and Dividing Decimals, 7 days

Unit of Study 1.6: Applying Decimals Operations, 5 days

**Quarter 2**

Unit of Study 2.1: Foundations of Fractions (LCM, GCF, Mixed Numbers, Improper Fractions), 8 days

Unit of Study 2.2: Adding and Subtracting Fractions, 8 days

Unit of Study 2.3: Multiplying and Dividing Fractions, 6 days

Unit of Study 2.4: Applying Fractions, 6 days

Unit of Study 2.5: Ratios, Rates, and Percentages, 12 days

**Quarter 3**

Unit of Study 3.1: Organizing, Displaying, and Interpreting Data, 10 days

Unit of Study 3.2: Analyzing Data, 8 days

Unit of Study 3.3: Probability, 7 days

Unit of Study 3.4: Classifying 2-D and 3-D Shapes, 10 days

Unit of Study 3.5: Congruency and Similarity, 5 days

**Quarter 4**

Unit of Study 4.1: Measurement, 10 days

Unit of Study 4.2: Introduction of Integers, 3 days

Unit of Study 4.3: Adding, Subtracting, and Applying Integers, 10 days

Unit of Study 4.4: Algebraic Reasoning, 10 days

Unit of Study 4.5: Equality, 10 days

## Grade 7

### Quarter 1

Unit of Study 1.1: Properties and Relationships Among Numbers, 10 days

Unit of Study 1.2: Comparing and Ordering, 6 days

Unit of Study 1.3: Statistics, 7 days

Unit of Study 1.4: Interpret and Analyze Given Data, 7 days

Unit of Study 1.5: Collecting and Analyzing Data, 10 days

### Quarter 2

Unit of Study 2.1: Conceptual Understanding of Operation of Integers, 10 days

Unit of Study 2.2: Operations with Integers, 10 days

Unit of Study 2.3: Conceptual Understanding of Proportionality, 10 days

Unit of Study 2.4: Applying Proportional Reasoning, 10 days

### Quarter 3

Unit of Study 3.1: Translations Among Representation, 8 days

Unit of Study 3.2: Development of Linear Relationship, 12 days

Unit of Study 3.3: Development of Algebraic Expressions, 12 days

Unit of Study 3.4: Understanding Equivalency Through Creating and Solving Equations, 8 days

### Quarter 4

Unit of Study 4.1: Probability, 8 days

Unit of Study 4.2: Geometric Relationships, 9 days

Unit of Study 4.3: Similarity and Congruency, 5 days

Unit of Study 4.4: Measurement, 13 days

Unit of Study 4.5: Spatial Reasoning, 5 days

**Grade 8****Quarter 1**

Unit of Study 1.1: Rational and Irrational Numbers, 11 days

Unit of Study 1.2: Problem Solving Using Proportional Reasoning, 9 days

Unit of Study 1.3: Problem Solving Using Integers, 12 days

Unit of Study 1.4: Problem Solving Using Square and Cubic Numbers, 8 days

**Quarter 2**

Unit of Study 2.1: Development of Conceptual Understanding of Rate of Change, 12 days

Unit of Study 2.2: Non-Linear Relationships, 12 days

Unit of Study 2.3: Developing Expressions, 8 days

Unit of Study 2.4: Solving Equations, 8 days

**Quarter 3**

Unit of Study 3.1: Interpret and Analyze Data, 8 days

Unit of Study 3.2: Create and Display Data, 13 days

Unit of Study 3.3: Probability, 13 days

Unit of Study 3.4: Developing a Survey, 6 days

**Quarter 4**

Unit of Study 4.1: Pythagorean Theorem, 4 days

Unit of Study 4.2: Surface Area, 13 days

Unit of Study 4.3: Application of Surface Area, 5 days

Unit of Study 4.4: Volume, 13 days

Unit of Study 4.5: Application of Volume, 5 days

## Algebra 1

### Quarter 1

Unit of Study 1.1: Investigating Data, 7 days

Unit of Study 1.2: Expressions (Simplifying and Magnitude), 10 days

Unit of Study 1.3: Percents and Ratios, 6 days

Unit of Study 1.4: Patterns, 4 days

Unit of Study 1.5: Multiple Representations, 13 days

### Quarter 2

Unit of Study 2.1: Linear Functions, 10 days

Unit of Study 2.2: Equations of Lines, 10 days

Unit of Study 2.3: Solving Systems of Equations, 13 days

Unit of Study 2.4: Solving Word Problems Using Systems of Linear Equations, 7 days

### Quarter 3

Unit of Study 3.1: Line of Best Fit, 7 days

Unit of Study 3.2: Analyzing Data, 10 days

Unit of Study 3.3: Polynomial Expression, 11 days

Unit of Study 3.4: Rational Expressions, 12 days

### Quarter 4

Unit of Study 4.1: Multiple Representations for Quadratic Functions, 5 days

Unit of Study 4.2: Characteristics of Quadratic Functions, 8 days

Unit of Study 4.3: Combinations and Permutations, 10 days

Unit of Study 4.4: Solving Quadratic Functions Using Various Methods, 17 days

## Geometry

### Quarter 1

Unit of Study 1.1: Coordinate Plane, 5 days

Unit of Study 1.2: Slope, 8 days

Unit of Study 1.3: Angles and Segments, 10 days

Unit of Study 1.4: Line and Angle Relationships, 10 days

Unit of Study 1.5: Polygons, 7 days

### Quarter 2

Unit of Study 2.1: Triangle Properties, 8 days

Unit of Study 2.2: Quadrilaterals, 12 days

Unit of Study 2.3: Congruency of Polygons, 5 days

Unit of Study 2.4: Congruency of Triangles, 10 days

Unit of Study 2.5: Reflections, Translations, and Rotations, 5 days

### Quarter 3

Unit of Study 3.1: Perimeter and Area of Figures, 9 days

Unit of Study 3.2: Surface Area, 9 days

Unit of Study 3.3: Volume, 8 days

Unit of Study 3.4: Similarity, 14 days

### Quarter 4

Unit of Study 4.1: Pythagorean Theorem, 5 days

Unit of Study 4.2: Trigonometry, 9 days

Unit of Study 4.3: Properties of Circles, 11 days

Unit of Study 4.4: Equation of Circles, 8 days

Unit of Study 4.5: Probability, 7 days

## Algebra 2

### Quarter 1

Unit of Study 1.1: Displays of Data, 5 days

Unit of Study 1.2: Real Numbers, 5 days

Unit of Study 1.3: Operations and Simplifying Roots (square, nth), 5 days

Unit of Study 1.4: Polynomial Functions, 6 days

Unit of Study 1.5: Rational Functions, 8 days

Unit of Study 1.6: Exponential Functions, 5 days

Unit of Study 1.7: Transformations of Families of Functions, 6 days

### Quarter 2

Unit of Study 2.1: Solving Systems of Equations and Inequalities Graphically, 8 days

Unit of Study 2.2: Solving Systems of Equations Algebraically, 9 days

Unit of Study 2.3: Matrices, 14 days

Unit of Study 2.4: Quadratics and Other Polynomials, 9 days

### Quarter 3

Unit of Study 3.1: Operations with Complex Numbers, 9 days

Unit of Study 3.2: Solving Quadratics, 12 days

Unit of Study 3.3: Polynomials, 10 days

Unit of Study 3.4: Rational Exponents, Including Compound Interest With and Without Calculators, 9 days

### Quarter 4

Unit of Study 4.1: Rational Expressions, 14 days

Unit of Study 4.2: Exponents and Logarithms, 11 days

Unit of Study 4.3: Conics, 15 days

## Precalculus

### Quarter 1

Unit of Study 1.1: Polynomial Functions, 8 days

Unit of Study 1.2: Exponential and Logarithmic, 10 days

Unit of Study 1.3: Rational Functions and Radical Functions, 10 days

Unit of Study 1.4: Data Analysis, 12 days

### Quarter 2

Unit of Study 2.1: Sampling, 8 days

Unit of Study 2.2: Permutations, Combinations, and Probability, 14 days

Unit of Study 2.3: Trigonometry: Special Right Triangles, 6 days

Unit of Study 2.4: Law of Sines and Cosines and Area of Polygons, 12 days

### Quarter 3

Unit of Study 3.1: Trigonometry: Graphs, 12 days

Unit of Study 3.2: Trigonometry: Identities and Proofs, 13 days

Unit of Study 3.3: Trigonometry: Solving Equations, 8 days

Unit of Study 3.4: Polar to Rectangular Coordinates, 7 days

### Quarter 4

Unit of Study 4.1: Vectors, 10 days

Unit of Study 4.2: Conic Sections, 10 days

Unit of Study 4.3: Sequences and Series, 10 days

Unit of Study 4.4: Limits, Proofs, and Non-Euclidean Geometry, 10 days

