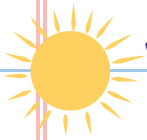


# 7th Grade Math



The Thinkwell summer learning series takes an entire year's worth of learning materials and makes it available throughout the summer so that your kids can recall what they've learned, catch up on what they haven't, and get prepared for the year ahead.



## WHAT YOU'LL GET AND HOW IT WORKS:

- Students get individual logins and work at their own pace.
- Lessons are presented in a sequential order, in small, manageable chunks.
- Students can skip through the content or repeat lessons as many times as they need.
- Practice exercises, quizzes, and tests are automatically graded with step-by-step answer feedback.
- The courses are entirely web-based – no software to download, no CDs and nothing more to purchase.

## 8-WEEK PLAN FOR 7TH GRADE MATH

- Week 1 - Algebraic Reasoning
- Week 2 - Integers and Rational Numbers
- Week 3 - Operations with Rational Numbers
- Week 4 - Proportional Relationships
- Week 5 - Graphs and Functions
- Week 6 - Percents & 7 Data
- Week 7 - Geometric Figures & Measurement:  
Two-Dimensional Figures
- Week 8 - Measurement: Three-Dimensional Figures

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## 8-WEEK SUMMER LESSON PLAN FOR 7TH GRADE MATH



### WEEK 1 - CHAPTER 1 ALGEBRAIC REASONING

#### Chapter 1 Pre-Test

**FAST-TRACK IDEA!**  
TAKE THE PRE-TEST LIKE A  
DIAGNOSTIC AND ONLY  
VIEW THE TOPICS YOU NEED  
TO BASED ON THE  
QUESTIONS YOU MISSED!

- 1.1 Patterns, Operations, and Properties
  - 1.1.1 Numbers and Patterns
  - 1.1.2 Exponents
  - 1.1.3 Applying Exponents: Scientific Notation
  - 1.1.4 Order of Operations
  - 1.1.5 Properties

- 1.2 Algebraic Expressions and Equations
  - 1.2.1 Variables and Algebraic Expressions
  - 1.2.2 Translate Words into Math
  - 1.2.3 Simplifying Algebraic Expressions
  - 1.2.4 Equations and Their Solutions
  - 1.2.5 Addition and Subtraction Equations
  - 1.2.6 Multiplication and Division Equations
- Chapter 1 Test

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### WEEK 2 - CHAPTER 2 INTEGERS AND RATIONAL NUMBERS

#### Chapter 2 Pre-Test

- 2.1 Integers
  - 2.1.1 Integers
  - 2.1.2 Adding Integers
  - 2.1.3 Subtracting Integers
  - 2.1.4 Multiplying and Dividing Integers
  - 2.1.5 Solving Equations Containing Integers
- 2.2 Factors and Multiples
  - 2.2.1 Prime Factorization
  - 2.2.2 Greatest Common Factor
  - 2.2.3 Least Common Multiple

- 2.3 Rational Numbers
  - 2.3.1 Equivalent Fractions and Mixed Numbers
  - 2.3.2 Equivalent Fractions and Decimals
  - 2.3.3 Comparing and Ordering Rational Numbers
- Chapter 2 Test

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### WEEK 3 - CHAPTER 3 OPERATIONS WITH RATIONAL NUMBERS

#### Chapter 3 Pre-Test

- 3.1 Operations with Decimals
  - 3.1.1 Rounding and Estimating Decimals
  - 3.1.2 Adding and Subtracting Decimals
  - 3.1.3 Multiplying Decimals
  - 3.1.4 Dividing Decimals by Whole Numbers
  - 3.1.5 Dividing Decimals

- 3.2 Operations with Fractions
  - 3.2.1 Estimating Fraction Sums and Differences
  - 3.2.2 Multiplying Fractions and Mixed Numbers
  - 3.2.3 Dividing Fractions and Mixed Numbers
  - 3.2.4 Adding and Subtracting Fractions and Mixed Numbers
  - 3.2.5 Solving Equations with Rational Numbers
- Chapter 3 Test

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## 8-WEEK SUMMER LESSON PLAN FOR 7TH GRADE MATH

### WEEK 4 - CHAPTER 4 PROPORTIONAL RELATIONSHIPS

#### **Chapter 4 Pre-Test**

##### 4.1 Ratios, Rates, and Proportions

- 4.1.1 Ratios
- 4.1.2 Rates
- 4.1.3 Identifying and Writing Proportions
- 4.1.4 Solving Proportions

##### 4.2 Measurement

- 4.2.1 Customary Measurement
- 4.2.2 Metric Measurements
- 4.2.3 Dimensional Analysis
- 4.2.4 Similar Figures and Proportions
- 4.2.5 Using Similar Figures
- 4.2.6 Scale Drawings and Scale Models
- Chapter 4 Test

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### WEEK 5 - CHAPTER 5 GRAPHS AND FUNCTIONS

#### **Chapter 5 Pre-Test**

##### 5.1 Functions, Tables, and Graphs

- 5.1.1 The Coordinate Plane
- 5.1.2 Tables and Graphs
- 5.1.3 Interpreting Graphs
- 5.1.4 Functions, Tables, and Graphs
- 5.1.5 Find the Pattern in Sequences

##### 5.2 Linear Functions

- 5.2.1 Graphing Linear Functions
- 5.2.2 Slopes and Rates of Change
- 5.2.3 Slope-Intercept Form
- 5.2.4 Direct Variation
- 5.2.5 Inverse Variation
- Chapter 5 Test

#### **Practice Midterm & Midterm Exam**

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### WEEK 6 - CHAPTERS 6 PERCENTS & 7 DATA

#### **Chapter 6 Pre-Test**

##### 6.1 Proportions and Percents

- 6.1.1 Percents
- 6.1.2 Percents, Decimals, and Fractions
- 6.1.3 Estimating with Percents
- 6.1.4 Finding Percents

##### 6.2 Applying Percents

- 6.2.1 Finding a Number When the Percent is Known
- 6.2.2 Percent Increase and Decrease
- 6.2.3 Simple Interest

Chapter 6 Test

#### **Chapter 7 Pre-Test**

##### 7.1 Organizing and Displaying Data

- 7.1.1 Frequency Tables, Stem-and-Leaf Plots, and Line Plots
- 7.1.2 Mean, Median, Mode, and Range
- 7.1.3 Bar Graphs and Histograms
- 7.1.4 Reading and Interpreting Circle Graphs
- 7.1.5 Box-and-Whisker Plots

##### 7.2 Representing and Analyzing Data

- 7.2.1 Line Graphs
- 7.2.2 Choosing an Appropriate Display
- 7.2.3 Populations and Samples
- 7.2.4 Scatter Plots
- 7.2.5 Misleading Graphs

Chapter 7 Test

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## 8-WEEK SUMMER LESSON PLAN FOR 7TH GRADE MATH

### WEEK 7 - CHAPTERS 8 GEOMETRIC FIGURES & 9 MEASUREMENT: TWO-DIMENSIONAL FIGURES

#### Chapter 8 Pre-Test

- 8.1 Lines and Angles
  - 8.1.1 Points, Lines, and Planes
  - 8.1.2 Angles and Their Relationships
  - 8.1.3 Geometric Relationships
- 8.2 Circles and Polygons
  - 8.2.1 Classifying Polygons
  - 8.2.2 Classifying Triangles
  - 8.2.3 Classifying Quadrilaterals
  - 8.2.4 Angles in Polygons
- 8.3 Transformations
  - 8.3.1 Congruent Figures
  - 8.3.2 Translations, Reflections, and Rotations
  - 8.3.3 Dilations
  - 8.3.4 Symmetry
- Chapter 8 Test

#### Chapter 9 Pre-Test

- 9.1 Perimeter, Circumference, and Area
  - 9.1.1 Accuracy and Precision
  - 9.1.2 Perimeter and Circumference
  - 9.1.3 Area of Parallelograms
  - 9.1.4 Area of Triangles and Trapezoids
  - 9.1.5 Area of Circles
  - 9.1.6 Area of Irregular Figures
- 9.2 Square Roots and the Pythagorean Theorem
  - 9.2.1 Squares and Square Roots
  - 9.2.2 The Pythagorean Theorem
- Chapter 9 Test

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### WEEK 8 - CHAPTER 10 MEASUREMENT: THREE-DIMENSIONAL FIGURES

#### Chapter 10 Pre-Test

- 10.1 Volume
  - 10.1.1 Introduction to Three-Dimensional Figures
  - 10.1.2 Volume of Prisms and Cylinders
  - 10.1.3 Volume of Pyramids and Cones

#### 10.2 Surface Area

- 10.2.1 Surface Area of Prisms and Cylinders
- 10.2.2 Surface Area of Pyramids and Cones
- 10.2.3 Changing Dimensions
- Chapter 10 Test

#### Practice Final & Final Exam



**NEED HELP?** That's what we're here for.

Call or email Thinkwell technical support at any time.  
[Support@thinkwell.com](mailto:Support@thinkwell.com)