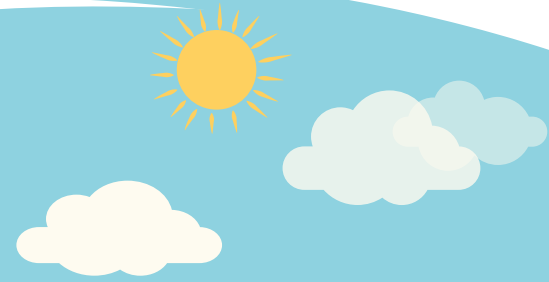
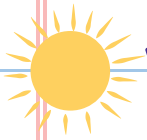




# Geometry



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 GEOMETRY

- Week 1 - Fundamentals of Geometry & Reasoning and Writing Geometric Proofs
- Week 2 - Parallel and Perpendicular Lines
- Week 3 - Triangle Congruence
- Week 4 - Properties and Attributes of Triangles
- Week 5 - Polygons and Quadrilaterals
- Week 6 - Similarity & Right Triangles and Trigonometry
- Week 7 - Perimeter, Circumference, and Area & Spatial Reasoning
- Week 8 - Circles & Transformational Geometry

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## 8-WEEK SUMMER LESSON PLAN FOR GEOMETRY

### WEEK 1 - CHAPTERS 1 FUNDAMENTALS OF GEOMETRY & 2 REASONING AND WRITING GEOMETRIC PROOFS

#### 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 Points, Lines, Planes, and Angles
    - 1.1.1 Understanding Points, Lines, and Planes
    - 1.1.2 Measuring and Constructing Segments
    - 1.1.3 Measuring and Constructing Angles
    - 1.1.4 Pairs of Angles
  - 1.2 Coordinate and Transformation Tools
    - 1.2.1 Using Formulas in Geometry
    - 1.2.2 Midpoint and Distance in the Coordinate Plane
    - 1.2.3 Transformations in the Coordinate Plane
- Chapter 1 Test

#### Chapter 2 Pre-Test

- 2.1 Inductive and Deductive Reasoning
    - 2.1.1 Using Inductive Reasoning to Make Conjectures
    - 2.1.2 Conditional Statements
    - 2.1.3 Using Deductive Reasoning to Verify Conjectures
    - 2.1.4 Biconditional Statements and Definitions
  - 2.2 Mathematical Proof
    - 2.2.1 Algebraic Proof
    - 2.2.2 Geometric Proof
    - 2.2.3 Flowchart and Paragraph Proofs
- Chapter 2 Test

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### WEEK 2 - CHAPTER 3 PARALLEL AND PERPENDICULAR LINES

#### Chapter 3 Pre-Test

- 3.1 Lines with Transversals
    - 3.1.1 Planes, Lines, and Angles
    - 3.1.2 Angles, Parallel Lines, and Transversals
    - 3.1.3 Proving that Lines are Parallel
    - 3.1.4 Properties of Perpendicular Lines
  - 3.2 Slope and the Equation of a Line
    - 3.2.1 Finding the Slope Given Two Points
    - 3.2.2 Slope-Intercept Form
    - 3.2.3 Point-Slope Form
    - 3.2.4 Slopes of Parallel and Perpendicular Lines
- Chapter 3 Test

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### WEEK 3 - CHAPTER 4 TRIANGLE CONGRUENCE

#### Chapter 4 Pre-Test

- 4.1 Triangles and Congruence
    - 4.1.1 Classifying Triangles
    - 4.1.2 Angle Relationships in Triangles
    - 4.1.3 Congruent Triangles
  - 4.2 Proving Triangle Congruence
    - 4.2.1 Triangle Congruence: SSS and SAS
    - 4.2.2 Triangle Congruence: ASA, AAS, and HL
    - 4.2.3 Triangle Congruence: CPCTC
    - 4.2.4 Introduction to Coordinate Proof
    - 4.2.5 Isosceles and Equilateral Triangles
- Chapter 4 Test

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### WEEK 4 - CHAPTER 5 PROPERTIES AND ATTRIBUTES OF TRIANGLES & MIDTERM

#### Chapter 5 Pre-Test

- 5.1 Segments in Triangles
    - 5.1.1 Perpendicular and Angle Bisector Theorems
    - 5.1.2 Medians, Altitudes, and Midsegments in Triangles
  - 5.2 Relationships in Triangles
    - 5.2.1 Indirect Proof and Inequalities in One Triangle
    - 5.2.2 Inequalities in Two Triangles
    - 5.2.3 The Pythagorean Theorem
    - 5.2.4 Applying Special Right Triangles
- Chapter 5 Test

#### Practice Midterm & Midterm Exam

**CONTINUED ON NEXT PAGE...**



## 8-WEEK SUMMER LESSON PLAN FOR GEOMETRY

### WEEK 5 - CHAPTER 6 POLYGONS AND QUADRILATERALS

#### Chapter 6 Pre-Test

##### 6.1 Polygons and Parallelograms

- 6.1.1 Properties and Attributes of Polygons
- 6.1.2 Properties of Parallelograms
- 6.1.3 Conditions for Parallelograms

##### 6.2 Other Special Quadrilaterals

- 6.2.1 Properties of Special Parallelograms
- 6.2.2 Conditions for Special Parallelograms
- 6.2.3 Properties of Kites and Trapezoids
- Chapter 6 Test

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### WEEK 6 - CHAPTERS 7 SIMILARITY & 8 RIGHT TRIANGLES AND TRIGONOMETRY

#### Chapters 7 & 8 Pre-Test

##### 7.1 Similarity Relationships

- 7.1.1 Ratio and Proportion
- 7.1.2 Ratios in Similar Polygons
- 7.1.3 Triangle Similarity: AA, SSS, and SAS

##### 8.1 Trigonometric Ratios

- 8.1.1 Similarity in Right Triangles
- 8.1.2 Trigonometric Ratios
- 8.1.3 Solving Right Triangles
- Chapters 7 & 8 Test

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### WEEK 7 - CHAPTERS 9 EXTENDING PERIMETER, CIRCUMFERENCE, AND AREA & 10 SPATIAL REASONING

#### Chapters 9 & 10 Pre-Test

##### 9.1 Developing Geometric Formulas

- 9.1.1 Developing Formulas for Triangles and Quadrilaterals
- 9.1.2 Developing Formulas for Circles and Regular Polygons

##### 10.1 Surface Area and Volume

- 10.1.1 Surface Area of Prisms and Cylinders
- 10.1.2 Surface Area of Pyramids and Cones
- 10.1.3 Volume of Prisms and Cylinders
- Chapters 9 & 10 Test

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### WEEK 8 - CHAPTERS 11 CIRCLES, 12 TRANSFORMATIONAL GEOMETRY, & FINAL EXAM

#### Chapters 11 & 12 Pre-Test

##### 11.1 Lines and Arcs in Circles

- 11.1.1 Lines That Intersect Circles
- 11.1.2 Arcs and Chords

##### 12.1 Congruence Transformations

- 12.1.1 Reflections
- 12.1.2 Translations
- 12.1.3 Rotations
- Chapters 11 & 12 Test

#### Practice Final Exam & Final Exam



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

Contact Thinkwell technical support!  
Support@thinkwell.com