



Geometry

Table of Contents

The Imagine IM Geometry Table of Contents includes details for the Units, Sections, and Lessons for the full year course.





Imagine IM Geometry

Imagine IM offers the latest IM v. 360 curricula optimized for engagement, accessibility, and usability. The comprehensive Algebra 1, Geometry, Algebra 2 series will include a suite of print and digital resources for teachers and students.

The Imagine IM Geometry Table of Contents includes the Unit, Section & Lesson titles and sequence for the full year course.

This Table of Contents is for review and evaluation purposes only. Minor edits or adjustments could be reflected in the final product.

Imagine IM Geometry

Table of Contents



Unit 1 Constructions and Rigid Transformations

Section A: Constructions

- Lesson 1 Build It
- Lesson 2 Constructing Patterns
- Lesson 3 Construction Techniques 1: Perpendicular Bisectors
- Lesson 4 Construction Techniques 2: Equilateral Triangles
- Lesson 5 Construction Techniques 3: Perpendicular Lines and Angle Bisectors
- Lesson 6 Construction Techniques 4: Parallel and Perpendicular Lines
- Lesson 7 Construction Techniques 5: Squares
- Lesson 8 Using Technology for Constructions
- Lesson 9 Speedy Delivery

Section B: Defining Rigid Transformations

- Lesson 10 Rigid Transformations
- Lesson 11 Defining Reflections
- Lesson 12 Defining Translations
- Lesson 13 Incorporating Rotations
- Lesson 14 Defining Rotations

Section C: Working with Rigid Transformations

- Lesson 15 Symmetry
- Lesson 16 More Symmetry
- Lesson 17 Working with Rigid Transformations
- Lesson 18 Practicing Point-by-Point Transformations

Section D: Evidence and Proof

- Lesson 19 Evidence, Angles, and Proof
- Lesson 20 Transformations, Transversals, and Proof
- Lesson 21 One Hundred Eighty

Section E: Let's Put It to Work

- Lesson 22 Now What Can You Build?

Imagine IM Geometry

Table of Contents



Unit 2 Congruence

Section A: Congruent Figures

- Lesson 1 Congruent Parts, Part 1
- Lesson 2 Congruent Parts, Part 2
- Lesson 3 Congruent Triangles, Part 1
- Lesson 4 Congruent Triangles, Part 2
- Lesson 5 Points, Segments, and Zigzags

Section B: Triangle Congruence Theorems

- Lesson 6 Side-Angle-Side Triangle Congruence
- Lesson 7 Angle-Side-Angle Triangle Congruence
- Lesson 8 The Perpendicular Bisector Theorem
- Lesson 9 Side-Side-Side Triangle Congruence
- Lesson 10 Practicing Proofs
- Lesson 11 Side-Side-Angle (Sometimes) Congruence

Section C: Proofs About Quadrilaterals

- Lesson 12 Proofs about Quadrilaterals
- Lesson 13 Proofs about Parallelograms
- Lesson 14 Bisect It

Section D: Let's Put It to Work

- Lesson 15 Congruence for Quadrilaterals

Unit 3 Similarity

Section A: Properties of Dilations

- Lesson 1 Scale Drawings
- Lesson 2 Scale of the Solar System
- Lesson 3 Measuring Dilations
- Lesson 4 Dilating Lines and Angles
- Lesson 5 Splitting Triangle Sides with Dilation (Part 1)

Section B: Similarity Transformations and Proportional Reasoning

- Lesson 6 Connecting Similarity and Transformations
- Lesson 7 Reasoning about Similarity with Transformations
- Lesson 8 Are They All Similar?
- Lesson 9 Conditions for Triangle Similarity
- Lesson 10 Other Conditions for Triangle Similarity
- Lesson 11 Splitting Triangle Sides with Dilation (Part 2)
- Lesson 12 Practice with Proportional Relationships

Section C: Similarity in Right Triangles

- Lesson 13 Using the Pythagorean Theorem and Similarity
- Lesson 14 Proving the Pythagorean Theorem
- Lesson 15 Converse of the Pythagorean Theorem
- Lesson 16 Finding All the Unknown Values in Triangles

Section D: Let's Put It to Work

- Lesson 17 Reflection Similarity

Imagine IM Geometry

Table of Contents



Unit 4 Right Triangle Trigonometry

Section A: Angles and Steepness

- Lesson 1 Angles and Steepness
- Lesson 2 Half a Square
- Lesson 3 Half an Equilateral Triangle
- Lesson 4 Ratios in Right Triangles
- Lesson 5 Working with Ratios in Right Triangles

Section B: Defining Trigonometric Ratios

- Lesson 6 Working with Trigonometric Ratios
- Lesson 7 Applying Ratios in Right Triangles
- Lesson 8 Sine and Cosine in the Same Right Triangle
- Lesson 9 Trigonometry Squared
- Lesson 10 Using Trigonometric Ratios to Find Angles

Section C: Let's Put It to Work

- Lesson 11 Solving Problems with Trigonometry
- Lesson 12 Approximating Pi

Unit 5 Solid Geometry

Section A: Cross-Sections, Scaling, and Area

- Lesson 1 Solids of Rotation
- Lesson 2 Slicing Solids
- Lesson 3 Creating Cross-Sections by Dilating
- Lesson 4 Scaling and Area
- Lesson 5 Scaling and Unscaling

Section B: Scaling Solids

- Lesson 6 Scaling Solids
- Lesson 7 The Root of the Problem
- Lesson 8 Speaking of Scaling

Section C: Prism and Cylinder Volumes

- Lesson 9 Cylinder Volumes
- Lesson 10 Cross-Sections and Volume
- Lesson 11 Prisms Practice

Section D: Understanding Pyramid Volumes

- Lesson 12 Prisms and Pyramids
- Lesson 13 Building a Volume Formula for a Pyramid
- Lesson 14 Working with Pyramids
- Lesson 15 Putting All the Solids Together

Section E: Let's Put It to Work

- Lesson 16 Surface Area and Volume
- Lesson 17 Volume and Density
- Lesson 18 Volume and Graphing

Imagine IM Geometry

Table of Contents



Unit 6 Coordinate Geometry

Section A: Transformations in the Plane

- Lesson 1 Rigid Transformations in a Plane
- Lesson 2 Transformations as Functions
- Lesson 3 Types of Transformations

Section B: Distances, Circles, and Parabolas

- Lesson 4 Distances and Circles
- Lesson 5 Squares and Circles
- Lesson 6 Completing the Square
- Lesson 7 Distances and Parabolas
- Lesson 8 Equations and Graphs

Section C: Proving Geometric Theorems Algebraically

- Lesson 9 Equations of Lines
- Lesson 10 Parallel Lines in the Plane
- Lesson 11 Perpendicular Lines in the Plane
- Lesson 12 It's All on the Line
- Lesson 13 Intersection Points
- Lesson 14 Coordinate Proof
- Lesson 15 Weighted Averages
- Lesson 16 Weighted Averages in a Triangle
- Lesson 17 Lines in a Triangle

Section D: Let's Put It to Work

- Lesson 18 Applying Area and Perimeter on the Plane

Imagine IM Geometry

Table of Contents



Unit 7 Circles

Section A: Lines, Angles, and Circles

- Lesson 1 Lines, Angles, and Curves
- Lesson 2 Inscribed Angles
- Lesson 3 Tangent Lines

Section B: Polygons and Circles

- Lesson 4 Quadrilaterals in Circles
- Lesson 5 Triangles in Circles
- Lesson 6 A Special Point
- Lesson 7 Circles in Triangles

Section C: Measuring Circles

- Lesson 8 Arcs and Sectors
- Lesson 9 Part to Whole
- Lesson 10 Angles, Arcs, and Radii
- Lesson 11 A New Way to Measure Angles
- Lesson 12 Radian Sense
- Lesson 13 Using Radians

Section D: Let's Put It to Work

- Lesson 14 Putting It All Together

Imagine IM Geometry

Table of Contents



Unit 8 Conditional Probability

Section A: Up to Chance

- Lesson 1 Up to Chance
- Lesson 2 Playing with Probability
- Lesson 3 Sample Spaces
- Lesson 4 Tables of Relative Frequencies
- Lesson 5 Combining Events
- Lesson 6 The Addition Rule

Section B: Related Events

- Lesson 7 Related Events
- Lesson 8 Conditional Probability
- Lesson 9 Using Tables for Conditional Probability
- Lesson 10 Using Probability to Determine Whether Events Are Independent

Section C: Let's Put it to Work

- Lesson 11 Probabilities in Games