

COMMON CORE GEOMETRY

VERSION 2.0

BY KIRK WEILER

UNIT #1 – ESSENTIAL GEOMETRIC TERMS AND CONCEPTS – 8 LESSONS 9

- Lesson #1 – Points, Distances, and Segments
- Lesson #2 – Lines, Rays and Angles
- Lesson #3 – Types of Angles
- Lesson #4 – Complements and Supplements
- Lesson #5 – Circles and Arcs
- Lesson #6 – Constructing a Triangle Given Its Sides
- Lesson #7 - Additional Geometric Terminology
- Lesson #8 - More Properties of Lines
- Unit #1 Review

UNIT #2 – TRANSFORMATIONS, RIGID MOTIONS AND CONGRUENCE – 9 LESSONS 49

- Lesson #1 – Transformations
- Lesson #2 – Rotations
- Lesson #3 – Reflections
- Lesson #4 – Isosceles Triangles
- Lesson #5 – Translations
- Lesson #6 – Congruence and Rigid Motions
- Lesson #7 – Basic Rigid Motion Proofs
- Lesson #8 - Congruence Reasoning About Triangles
- Lesson #9 - Symmetries of a Figure
- Unit #2 Review

UNIT #3 – EUCLIDEAN TRIANGLE PROOF – 10 LESSONS 95

- Lesson #1 – Drawing Inferences from Givens
- Lesson #2 – The Axioms of Equality
- Lesson #3 – Triangle Congruence Theorems



UNIT #3 – EUCLIDEAN TRIANGLE PROOF (CONTINUED) 95

- Lesson #4 – CPCTC
- Lesson #5 – Proofs with Partitioning
- Lesson #6 – Parallel Properties Review
- Lesson #7 - More Work with Parallel Lines
- Lesson #8 - AAS and Isosceles Triangles
- Lesson #9 - Hypotenuse-Leg
- Lesson #10 - Additional Triangle Proof
- Unit #3 Review

UNIT #4 – CONSTRUCTIONS – 7 LESSONS 145

- Lesson #1 – Introduction to Constructions
- Lesson #2 – Constructing Angles and Parallel Lines
- Lesson #3 – Constructing Perpendicular Lines
- Lesson #4 – The Circumscribed Circle
- Lesson #5 – Bisecting an Angle
- Lesson #6 – The Inscribed Circle of a Triangle
- Lesson #7 – Inscribing Regular Polygons
- Unit #4 Review

UNIT #5 – THE TOOLS OF COORDINATE GEOMETRY – 11 LESSONS 187

- Lesson #1 – Slope and Parallelism
- Lesson #2 – Slope and Perpendicularity
- Lesson #3 – Equations of Lines
- Lesson #4 – The Point-Slope Form of a Line
- Lesson #5 – Horizontal and Vertical Lines
- Lesson #6 – The Pythagorean Theorem
- Lesson #7 - The Distance Formula
- Lesson #8 - The Midpoint Formula
- Lesson #9 - Rotations in the Coordinate Plane
- Lesson #10 - Reflections in the Coordinate Plane
- Lesson #11 - Translations in the Coordinate Plane
- Unit #5 Review



UNIT #6 – QUADRILATERALS – 7 LESSONS 241

- Lesson #1 – Trapezoids and Parallelograms
- Lesson #2 – Properties of Parallelograms
- Lesson #3 – What Makes a Parallelogram
- Lesson #4 – The Midpoints of a Triangle
- Lesson #5 – Rectangles
- Lesson #6 – The Rhombus
- Lesson #7 – Squares
- Unit #6 Review

UNIT #7 – DILATIONS AND SIMILARITY – 12 LESSONS 279

- Lesson #1 – Dilations
- Lesson #2 – Dilations in the Coordinate Plane
- Lesson #3 – Dilations and Angles
- Lesson #4 – Similarity
- Lesson #5 – Similarity Criteria
- Lesson #6 - Reasoning with Similarity
- Lesson #7 - More Similarity Reasoning
- Lesson #8 - The Side Splitter Theorem
- Lesson #9 - Partitioning a Line Segment
- Lesson #10 - The Medians of a Triangle
- Lesson #11 - Right Triangles and Similarity
- Lesson #12 - Proving the Pythagorean Theorem (no homework)
- Unit #7 Review

UNIT #8 – RIGHT TRIANGLE TRIGONOMETRY – 6 LESSONS 339

- Lesson #1 – Similar Right Triangles
- Lesson #2 – The Trigonometric Ratios
- Lesson #3 – Trigonometry and the Calculator
- Lesson #4 – Solving for Missing Sides of a Right Triangles
- Lesson #5 – Trigonometric Applications
- Lesson #6 – More Trigonometry Applications
- Unit #8 Review



UNIT #9 – CIRCLE GEOMETRY – 12 LESSONS 373

- Lesson #1 – Circle Terminology
- Lesson #2 – Inscribed Angles
- Lesson #3 – More Work with Inscribed Angles
- Lesson #4 - Intersecting Chords
- Lesson #5 - Tangents to a Circle
- Lesson #6 - Tangents, Secants, and Their Angles
- Lesson #7 - Tangent and Secant Proofs and Practice
- Lesson #8 - Secant and Tangent Lengths
- Lesson #9 - Equations of Circles
- Lesson #10 - Placing Circles in Standard Form
- Lesson #11 - Constructing Tangents
- Lesson #12 - Equations of Tangent Lines
- Unit #9 Review

UNIT #10 – MEASUREMENT AND MODELING– 11 LESSONS 435

- Lesson #1 – Perimeter
- Lesson #2 – The Circumference of a Circle
- Lesson #3 – The Area of Polygons
- Lesson #4 – The Area of a Circle
- Lesson #5 – Sectors of Circles
- Lesson #6 – Radian Measure of Angles
- Lesson #7 – Solids and Their Cross Sections
- Lesson #8 – The Volume of Prisms and Cylinders
- Lesson #9 – The Volume of Pyramids and Cones
- Lesson #10 – Spheres
- Lesson #11 – The Volume of a Truncated Cone
- Unit #10 Review

TOTAL LESSON COUNT = 93

