Illustrative Mathematics Geometry

Week	Unit	Lesson	Video
1	**Unit 1** Constructions and Rigid and Transformations Practice Problem Videos	• Lesson 1: Build It • Lesson 2: Constructing Patterns • Lesson 3: Construction Techniques 1: Perpendicular Bisectors • Lesson 4: Construction Techniques 2: Equilateral Triangles	• Lesson 1: Build It • Lesson 2: Constructing Patterns • Lesson 3: Construction Techniques 1: Perpendicular Bisectors • Lesson 4: Construction Techniques 2: Equilateral Triangles
2		• 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	• 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

3		• Lesson 10: Rigid Transformations • Lesson 11: Defining Reflections • Lesson 12: Defining Translations • Lesson 13: Incorporating Rotations • Lesson 14: Defining Rotations	• Lesson 10: Rigid Transformations • Lesson 11: Defining Reflections • Lesson 12: Defining Translations • Lesson 13: Incorporating Rotations • Lesson 14: Defining Rotations
4		• Lesson 15: Symmetry • Lesson 16: More Symmetry • Lesson 17: Working with Rigid Transformations • *Lesson 18: Practicing Point-by-Point Transformations*	• Lesson 15: Symmetry • Lesson 16: More Symmetry • Lesson 17: Working with Rigid Transformations • *Lesson 18: Practicing Point-by-Point Transformations*
5		• Lesson 19: Evidence, Angles, and Proof • Lesson 20: Transformations, Transversals, and Proof • Lesson 21: One Hundred Eighty • *Lesson 22: Now What Can You Build?*	• Lesson 19: Evidence, Angles, and Proof • Lesson 20: Transformations, Transversals, and Proof • Lesson 21: One Hundred Eighty • *Lesson 22: Now What Can You Build*

6	**Unit 2** Congruence Practice Problem Videos	• 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	• 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
7		• 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 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
8		• *Lesson 11: Side-Side-Angle (Sometimes) Congruence* • Lesson 12: Proofs about Quadrilaterals	• *Lesson 11: Side-Side-Angle (Sometimes) Congruence* • Lesson 12: Proofs about Quadrilaterals • Lesson 13: Proofs

		• Lesson 13: Proofs about Parallelograms • Lesson 14: Bisect It • Lesson 15: Congruence for Quadrilaterals	about Parallelograms • Lesson 14: Bisect It • Lesson 15: Congruence for Quadrilaterals • Review
9	**Unit 3** Similarity Practice Problem Videos	• 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)	• 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)
10		• 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 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*

11		• Lesson 11: Splitting Triangle Sides with Dilation (Part 2) • *Lesson 12: Practice with Proportional Relationships* • Lesson 13: Using the Pythagorean Theorem and Similarity • Lesson 14: Proving the Pythagorean Theorem	• "Lesson 11: Splitting Triangle Sides with Dilation (Part 2) • Unit 3 Review • *Lesson 12: Practice with Proportional Relationships* • Lesson 13: Using the Pythagorean Theorem and Similarity • Lesson 14: Proving the Pythagorean Theorem • How to Use the PythagoreanTheory • How to use Geometric Mean in Triangles w/an Altitude drawn to the Hypotenuse
12		• Lesson 15: Converse of the Pythagorean Theorem • Lesson 16: Finding All the Unknown Values in Triangles • Lesson 17: Reflection Similarity	• Lesson 15: Converse of the Pythagorean Theorem • Lesson 16: Finding All the Unknown Values in Triangles • Lesson 17: Reflection Similarity
13	**Unit 4** Right Triangle Trigonometry Practice Problem Videos	• Lesson 1: Angles and Steepness • *Lesson 2: Half a Square* • *Lesson 3: Half an Equilateral Triangle*	• Lesson 1: Angles and Steepness • *Lesson 2: Half a Square* • *Lesson 3: Half an Equilateral Triangle* • Lesson 4: Ratios in

		• Lesson 4: Ratios in Right Triangles	Right Triangles
14		• Lesson 5: Working with Ratios in Right Triangles • Lesson 6: Working with Trigonometric Ratios • Lesson 7: Applying Ratios in Right Triangles • Lesson 8: Sine and Cosine in the Same Right Triangle	• Lesson 5: Working with Ratios in Right Triangles • Lesson 6: Working with Trigonometric Ratios • Lesson 7: Applying Ratios in Right Triangles • Lesson 8: Sine and Cosine in the Same Right Triangle
15		• Lesson 9: Trigonometry Squared • Lesson 10: Using Trigonometric Ratios to Find Angles • Lesson 11: Solving Problems with Trigonometry • Lesson 12: Approximating Pi	• Lesson 9: Trigonometry Squared • Unit 4 Review • Lesson 10: Using Trigonometric Ratios to Find Angles • Lesson 11: Solving Problems with Trigonometry • Lesson 12: Approximating Pi
16	**Unit 5** Solid Geometry Practice Problem Videos	• Lesson 1: Solids of Rotation • Lesson 2: Slicing Solids • Lesson 3: Creating Cross-Sections by Dilating • Lesson 4: Scaling	• Lesson 1: Solids of Rotation • Lesson 2: Slicing Solids • Lesson 3: Creating Cross-Sections by Dilating • Lesson 4: Scaling and Area

		and Area • Lesson 5: Scaling and Unscaling	• Lesson 5: Scaling and Unscaling
17		• Lesson 6: Scaling Solids • Lesson 7: The Root of the Problem • Lesson 8: Speaking of Scaling • Lesson 9: Cylinder Volumes • Lesson 10: Cross-Sections and Volume	• Lesson 6: Scaling Solids • Lesson 7: The Root of the Problem • Lesson 8: Speaking of Scaling • Lesson 9: Cylinder Volumes • Lesson 10: Cross-Sections and Volume
18		• Lesson 11: Prisms Practice • Lesson 12: Prisms and Pyramids • Lesson 13: Building a Volume Formula for a Pyramid • Lesson 14: Working with Pyramids	• Lesson 11: Prisms Practice • Lesson 12: Prisms and Pyramids • Lesson 13: Building a Volume Formula for a Pyramid • Lesson 14: Working with Pyramids
19		• Lesson 15: Putting All the Solids Together • Lesson 16: Surface Area and Volume • Lesson 17: Volume and Density • Lesson 18: Volume and	• Lesson 15: Putting All the Solids Together • Unit 5 Review • Lesson 16: Surface Area and Volume • Lesson 17: Volume and Density • Lesson 18: Volume and Graphing

		Graphing	
20	**Unit 6** Coordinate Geometry Practice Problem Videos	• Lesson 1: Rigid Transformations in a Plane • Lesson 2: Transformations as Functions • Lesson 3: Types of Transformations • Lesson 4: Distances and Circles • Lesson 5: Squares and Circles	• Lesson 1: Rigid Transformations in a Plane • Lesson 2: Transformations as Functions • Lesson 3: Types of Transformations • Lesson 4: Distances and Circles • Lesson 5: Squares and Circles
21		• Lesson 6: Completing the Square • Lesson 7: Distances and Parabolas • Lesson 8: Equations and Graphs • Lesson 9: Equations of Lines • Lesson 10: Parallel Lines in the Plane	• Lesson 6: Completing the Square • Lesson 7: Distances and Parabolas • Lesson 8: Equations and Graphs • Lesson 9: Equations of Lines • Lesson 10: Parallel Lines in the Plane
22		• Lesson 11: Perpendicular Lines in the Plane • Lesson 12: It's All on the Line • Lesson 13: Intersection Points	• Lesson 11: Perpendicular Lines in the Plane • Lesson 12: It's All on the Line • Lesson 13: Intersection Points • Lesson 14:

		• Lesson 14: Coordinate Proof	Coordinate Proof" • Unit 6 Review Part 1 • Unit 6 Review Part 2 • Lesson 9-11 Recap
23		• Lesson 15: Weighted Averages • Lesson 16: Weighted Averages in a Triangle • Lesson 17: Lines in Triangles • Lesson 18: Applying Area and Perimeter on the Plane	• Lesson 15: Weighted Averages • Lesson 16: Weighted Averages in a Triangle • Lesson 17: Lines in Triangles • Lesson 18: Applying Area and Perimeter on the Plane
24	**Unit 7** Circles Practice Problem Videos	• Lesson 1: Lines, Angles, and Curves • Lesson 2: Inscribed Angles • Lesson 3: Tangent Lines • Lesson 4: Quadrilaterals in Circles • Lesson 5: Triangles in Circles	• Lesson 1: Lines, Angles, and Curves • Lesson 2: Inscribed Angles • Lesson 3: Tangent Lines • Lesson 4: Quadrilaterals in Circles • Lesson 5: Triangles in Circles
25		• Lesson 6: A Special Point • Lesson 7: Circles in Triangles • Lesson 8: Arcs and Sectors • Lesson 9: Part to Whole	• Lesson 6: A Special Point • Lesson 7: Circles in Triangles + Unit 7 Lesson 7 Video Lesson (w/construction of incenter digitally & by hand)

			• Lesson 8: Arcs and Sectors • Lesson 9: Part to Whole
26		• Lesson 10: Angles, Arcs, and Radii • Lesson 11: A New Way to Measure Angles • Lesson 12: Radian Sense • Lesson 13: Using Radians • Lesson 14: Putting It All Together	• Lesson 10: Angles, Arcs, and Radii • Lesson 11: A New Way to Measure Angles • Lesson 12: Radian Sense • Lesson 13: Using Radians • Lesson 14: Putting It All Together Unit 7 Review
27	**Unit 8** Conditional Probability Practice Problem Videos	• *Lesson 1: Up to Chance* • Lesson 2: Playing with Probability • Lesson 3: Sample Spaces • Lesson 4: Tables of Relative Frequencies	• *Lesson 1: Up to Chance* • Lesson 2: Playing with Probability • Lesson 3: Sample Spaces • Lesson 4: Tables of Relative Frequencies
28		• Lesson 5: Combining Events • Lesson 6: The Addition Rule • Lesson 7: Related Events • Lesson 8: Conditional Probability	• Lesson 5: Combining Events • Lesson 6: The Addition Rule • Lesson 7: Related Events • Lesson 8: Conditional Probability • Unit 8 Review
29		• Lesson 9: Using Tables for	• Lesson 9: Using Tables for

		• Conditional Probability • Lesson 10: Using Probability to Determine Whether Events Are Independent • *Lesson 11: Probabilities in Games*	• Conditional Probability • Lesson 10: Using Probability to Determine Whether Events Are Independent • *Lesson 11: Probabilities in Games*