MEA 2014-2015 Course: Geometry A
Teacher: Claudia Valle Student:
Start Date: Projected End Date:

| Objective: Students will understand and use the basic undefined terms and defined terms of geometry. Students will understand how to measure and describe angles and segments. | | | | | | |
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| Assignment # | Activity | Essential Question | Date Completed | Grade | TEKS | ELPS |
| 1 | Understanding Points, Lines, and Planes | What are some real life situations that represent points, lines, and planes? How can you use measurements to describe, compare, and make sense of real-life objects? How can you best choose the most appropriate measurement technique to use in a situation? | | | G.1.A,G.7.A | 1A, 1C, 1E, 1F, 2D, 2E, 2I, 3C, 3D, 3F, 3G, 4F, 4J, 4K, 5B, 5F, 5G |
| 2 | Measuring and Constructing Segments | | | | G.2.A, G.2.B, G.3.B, G.7.C | 1A, 1C, 1E, 1F, 2D, 2E, 2I, 3C, 3D, 3F, 3G, 4F, 4J, 4K, 5B, 5F, 5G |
| 3 | Measuring and Constructing Angles | | | | G.1.A, G.1.B, G.2.A, G.2.B, G.3.B | 1A, 1C, 1E, 1F, 2D, 2E, 2I, 3C, 3D, 3F, 3G, 4F, 4J, 4K, 5B, 5F, 5G |
| 4 | Pairs of Angles | | | | G.1.A, G.2.B | 1A, 1C, 1E, 1F, 2D, 2E, 2I, 3C, 3D, 3F, 3G, 4F, 4J, 4K, 5B, 5F, 5G |
| 5 | Midpoint and Distance in the Coordinate Plane | | | | G.1.A, G.7.A, G.7.C, G.8.C | 1E, 4F, 4J, 4K |
| 6 | Unit 1 Test | | | | G.1.A, G.1.B, G.2.A, G.2.B, G.3.B, G.7.A, G.7.C, G.8.A, G.8.C | 1E, 4K |

| Objective: Students will understand how to use inductive and deductive reasoning to make conclusions. Students will understand how algebraic and geometric properties can be used to justify conjectures. | | | | | | |
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| Assignment # | Activity | Essential Question | Date Completed | Grade | TEKS | ELPS |
| 7 | Using Inductive Reasoning to Make Conjectures | What are some real life situations where conditional statements are relevant? How can strong communication skills enhance the mathematical experience? | | | G.2.B, G.3.D, G.5.B | 1A, 1C, 1E, 1F, 2D, 2E, 2I, 3C, 3D, 3F, 3G, 4F, 4J, 4K, 5B, 5F, 5G |
| 8 | Conditional Statements | | | | G.3.A, G.3.C | 1A, 1C, 1E, 1F, 2D, 2E, 2I, 3C, 3D, 3F, 3G, 4F, 4J, 4K, 5B, 5F, 5G |
| 9 | Using Deductive Reasoning to Verify Conjectures | | | | G.2.B, G.3.B, G.3.C, G.3.E | 1A, 1C, 1E, 1F, 2D, 2E, 2I, 3C, 3D, 3F, 3G, 4F, 4J, 4K, 5B, 5F, 5G |
| 10 | Biconditional Statements and Definitions | | | | G.3.A, G.3.B | 1A, 1C, 1E, 1F, 2D, 2E, 2I, 3C, 3D, 3F, 3G, 4F, 4J, 4K, 5B, 5F, 5G, 4J, 5E.iii |
| 11 | Algebraic Proof | | | | G.3.B, G.3.C, G.3.E | 5G |
| 12 | Geometric Proof | | | | G.1.A, G.3.B, G.3.C, G.3.E | 5G |
| 13 | Flowcharts and Paragraph Proofs | | | | G.1.A, G.2.B, G.3.C, G.3.E | 4J, 4K, 5G |
| 14 | Unit 2 Test | | | | G.1.A, G.2.B, G.3.A, G.3.B, G.3.C, G3.D, G.3.E, G.5.B | 1E, 4K |

**Objective: Students will understand the properties of parallel and perpendicular lines and how they are relevant in real life. Students will understand how to justify that lines are parallel using algebra and geometric proofs.**

| Assignment # | Activity | Essential Question | Date Completed | Grade | TEKS | ELPS |
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| 15 | Lines and Angles | What are some real life examples of parallel, perpendicular, and skew lines? How can the slope be used to identify parallel and perpendicular lines in a coordinate plane? | | | G.1.A | 1A, 1C, 1E, 1F, 4F, 4J, 4K, 5B, 5F, 5G |
| 16 | Angles Formed by Parallel Lines and Transversals | | | | G.3.C, G.9.A | 1A, 1C, 1E, 1F, 4F, 4J, 4K, 5B, 5F, 5G |
| 17 | Proving Lines Parallel | | | | G.1.A, G.3.C, G.7.C | 1A, 1C, 1E, 1F, 3C, 3D, 3F, 3G, 4F, 4J, 4K, 5B, 5F, 5G |
| 18 | Perpendicular Lines | | | | G.1.A, G.2.A, G.3.C, G.9.A | 1A, 1C, 1E, 1F, 4F, 4J, 4K, 5B, 5F, 5G |
| 19 | Slopes of Lines | | | | G.7.B, G.7.C | 1A, 1C, 1E, 1F, 4F, 4J, 4K, 5B, 5F, 5G |
| 20 | Lines in the Coordinate Plane | | | | G.3.C, G.7.B | 1A, 1C, 1E, 1F, 4F, 4J, 4K, 5B, 5F, 5G |
| 21 | Unit 3 Test | | | | G.1.A, G.2.A, G.3.C, G.7.B, G.7.C, G.9.A | 1E |

**Objective: Students will understand how to use different postulates and theorems to prove two triangles are congruent. Students will understand how use properties triangles to solve problems.**

| Assignment # | Activity | Essential Question | Date Completed | Grade | TEKS | ELPS |
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| 22 | Classifying Triangles | How do you decide which theorem or postulate to use to show congruence among triangles? How can you decide if enough information is given to determine if two triangles are congruent? | | | G.1.A | 1A, 1C, 1E, 1F, 2D, 2E, 2I, 3C, 3D, 3F, 3G, 4F, 4J, 4K, 5B, 5F, 5G |
| 23 | Angle Relationships in Triangles | | | | G.1.A, G.2.B | 1A, 1C, 1E, 1F, 2D, 2E, 2I, 3C, 3D, 3F, 3G, 4F, 4J, 4K, 5B, 5F, 5G |
| 24 | Congruent Triangles | | | | G.2.B, G.10.B | 1A, 1C, 1E, 1F, 2D, 2E, 2I, 3C, 3D, 3F, 3G, 4F, 4J, 4K, 5B, 5F, 5G |
| 25 | Triangle Congruence: SSS and SAS | | | | G.2.A, G.10.B | 1A, 1C, 1E, 1F, 2D, 2E, 2I, 3C, 3D, 3F, 3G, 4F, 4J, 4K, 5B, 5F, 5G |
| 26 | Triangle Congruence: ASA, AAS, and HL | | | | G.1.A, G.2.A, G.9.B, G.10.B | 1A, 1C, 1E, 1F, 2D, 2E, 2I, 3C, 3D, 3F, 3G, 4F, 4J, 4K, 5B, 5F, 5G |
| 27 | Triangle Congruence: CPCTC | | | | G.1.A, G.7.A, G.10.B | 1A, 1C, 1E, 1F, 2D, 2E, 2I, 3C, 3D, 3F, 3G, 4F, 4J, 4K, 5B, 5F, 5G |
| 28 | Isosceles and Equilateral Triangles | | | | G.2.B, G.10.B | 1A, 1C, 1E, 1F, 2D, 2E, 2I, 3C, 3D, 3F, 3G, 4F, 4J, 4K, 5B, 5F, 5G |
| 29 | Unit 4 Test | | | | G.1.A, G.2.A, G.2.B, G.7.A, G.9.B, G.10.B | 1E |

| Objective: Students will understand how to identify and apply perpendicular and angle bisectors, medians, and altitudes to find segment lengths in triangles. Students will understand how to use the Triangle Inequality Theorems. | | | | | | |
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| **Assignment #** | **Activity** | **Essential Question** | **Date Completed** | **Grade** | **TEKS** | **ELPS** |
| 30 | Perpendicular and Angle Bisectors | What is the difference between medians and altitudes?<br>How can you identify which side of a triangle is the longest and which angle in a triangle is the largest? | | | G.3.B, G.7.B | 1E, 1F, 2D, 2E, 2I, 3C, 3D, 3F, 3G, 4F, 4J, 4K, 5B, 5F, 5G |
| 31 | Bisectors of Triangles | | | | G.2.A, G.3.B, G.7.B | 1A, 1C, 1E, 1F, 2D, 2E, 2I, 3C, 3D, 3F, 3G, 4F, 4J, 4K, 5B, 5F, 5G |
| 32 | Medians and Altitudes of Triangles | | | | G.2.A, G.3.B, G.7.B | 1A, 1C, 1E, 1F, 2D, 2E, 2I, 3C, 3D, 3F, 3G, 4F, 4J, 4K, 5B, 5F, 5G |
| 33 | The Triangle Midsegment Theorem | | | | G.2.A, G.3.B, G.7.B, G.9.B | 1A, 1C, 1E, 1F, 2D, 2E, 2I, 3C, 3D, 3F, 3G, 4F, 4J, 4K, 5B, 5F, 5G |
| 34 | Indirect Proof and Inequalities in One Triangle | | | | G.3.B | 1A, 1C, 1E, 1F, 2D, 2E, 2I, 3C, 3D, 3F, 3G, 4F, 4J, 4K, 5B, 5F, 5G |
| 35 | Inequalities in Two Triangles | | | | G.3.B | 1A, 1C, 1E, 1F, 2D, 2E, 2I, 3C, 3D, 3F, 3G, 4F, 4J, 4K, 5B, 5F, 5G |
| 36 | The Pythagorean Theorem | | | | G.5.D, G.8.C, G.11.C | 1A, 1C, 1E, 1F, 2D, 2E, 2I, 3C, 3D, 3F, 3G, 4F, 4J, 4K, 5B, 5F, 5G |
| 37 | Applying Special Right Triangles | | | | G.5.D, G.7.B | 1A, 1C, 1E, 1F, 2D, 2E, 2I, 3C, 3D, 3F, 3G, 4F, 4J, 4K, 5B, 5F, 5G |
| 38 | Unit 5 Test | | | | G.2.A, G.3.B, G.5.D, G.7.B, G.8.C, G.9.B, G.11.C | 1E, 4K |

| Objective: Students will understand how to identify various types of quadrilaterals.<br>Students will understand how to use properties of special quadrilaterals to solve real-life problems. | | | | | | |
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| Assignment # | Activity | Essential Question | Date Completed | Grade | TEKS | ELPS |
| 39 | Properties and Attributes of Polygons | What methods are used to prove a quadrilateral is a parallelogram?<br>How can you identify special quadrilaterals based on limited information? | | | G.2.B, G.3.B, G.5.B, G.7.A | 1A, 1C, 1E, 1F, 2D, 2E, 2I, 3C, 3D, 3F, 3G, 4F, 4J, 4K, 5B, 5F, 5G |
| 40 | Properties of Parallelograms | | | | G.2.B, G.3.B, G.3.E, G.7.A, G.7.B, G.7.C | 1A, 1C, 1E, 1F, 2D, 2E, 2I, 3C, 3D, 3F, 3G, 4F, 4J, 4K, 5B, 5F, 5G |
| 41 | Conditions for Parallelograms | | | | G.2.A, G.2.B, G.3.B, G.3.E, G.7.A, G.7.B, G.7.C | 1A, 1C, 1E, 1F, 2D, 2E, 2I, 3C, 3D, 3F, 3G, 4F, 4J, 4K, 5B, 5F, 5G |
| 42 | Properties of Special Parallelograms | | | | G.2.A, G.2.B, G.3.B, G.3.E, G.7.A, G.7.B, G.7.C | 1A, 1C, 1E, 1F, 2D, 2E, 2I, 3C, 3D, 3F, 3G, 4F, 4J, 4K, 5B, 5F, 5G |
| 43 | Conditions for Special Parallelograms | | | | G.2.A, G.2.B, G.3.B, G.3.E, G.7.A, G.7.B, G.7.C | 1A, 1C, 1E, 1F, 2D, 2E, 2I, 3C, 3D, 3F, 3G, 4F, 4J, 4K, 5B, 5F, 5G |
| 44 | Properties of Kites and Trapezoids | | | | G.2.A, G.2.B, G.3.B, G.3.E, G.7.A, G.7.B, G.7.C | 1A, 1C, 1E, 1F, 2D, 2E, 2I, 3C, 3D, 3F, 3G, 4F, 4J, 4K, 5B, 5F, 5G |
| 45 | Unit 6 Test | | | | G.2.A, G.2.B, G.3.B, G.3.E, G.5.B, G.7.A, G.7.B, G.7.C, G.9.B | 1E, 4K |