

WAUCONDA SCHOOL DISTRICT 118

UNIT PLANNING ORGANIZER

Subject: Geometry A

Grade Level or Course: Geometry A

Unit 4 - Triangle Congruences Pacing: 20 days

STAGE 1 – DESIRED RESULTS

Essential Questions:

- How do you identify corresponding parts of congruent triangles?
- How do you show that two triangles are congruent?
- How can you tell whether a triangle is isosceles or equilateral?

Big Ideas:

- Comparing the corresponding parts of two figures can show whether or not the figures are congruent.
- Proving triangles congruent involves the use of theorems, properties, and definitions.
- Two triangles can be proven to be congruent without having to show that all corresponding six parts are congruent.
- If two triangles are congruent, then every pair of their corresponding parts is also congruent.
- The angles and sides of isosceles and equilateral triangles have special relationships.
- Congruent corresponding parts of one pair of congruent triangles can sometimes be used to prove another pair of triangles are congruent. This often involves overlapping triangles.

CCSS (Priority Standards):

- G.CO.B.7 Use the definition of congruence in terms of rigid motions to show that two triangles are congruent if and only if corresponding pairs of sides and corresponding pairs of angles are congruent.
- G.CO.B.8 Explain how the criteria for triangle congruence (ASA, SAS, and SSS) follow from the definition of congruence in terms of rigid motions.
- G.CO.10 Prove theorems about triangles. Theorems include: measures of interior angles of a triangle sum to 180° ; base angles of isosceles triangles are congruent; the segment joining midpoints of two sides of a triangle is parallel to the third side and half the length; the medians of a triangle meet at a point.
- G.SRT.5 Use congruence and similarity criteria for triangles to solve problems and to prove relationships in geometric figures.

CCSS (Supporting Standards):

STAGE 2 – EVIDENCE

Concepts (What students need to know)	Performance Tasks (What students will be able to do)	21st Century Skills
• Relate congruence to rigid motions/transformations. • Triangles and Angles • Congruence and Triangles • Proving Triangles are Congruent • Proving Triangles are Congruent by SSS, SAS, ASA, & AAS • Proving Triangles are Congruent by HL and using CPCTC • Isosceles, Equilateral & Right Triangles	• Classify triangles by their sides and angles. • Find angle measures in triangles. • Use the properties of isosceles and equilateral triangles to find angle measures and side lengths. • Find angle measures in triangles. • Identify congruent figures and corresponding parts. • Prove Triangles are Congruent using Congruence Postulates & Theorems: SSS, SAS, AAS, ASA, & HL. • Use congruent triangles to plan and write proofs.	

Common Formative/Summative Assessments:

- 1st Quarter Pre-Test and Midterm Exam
- Quest #11 - #14

Interim Assessments (Informal Progress Monitoring checks):

- Daily Subjective Homework Check
- MiniQuiz

Modified Common Assessments:

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Modified Interim Assessments:

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STAGE 3 – LEARNING PLAN (INSTRUCTIONAL PLANNING)

Suggested Resources/Materials/Informational Texts

Suggested Research-based Effective Instructional Strategies

Academic Vocabulary/ Word Wall	Enrichment/Extensions/ Modifications	Interdisciplinary Connection
Essential Vocabulary: AAS Congruence Theorem Acute Triangle ASA Congruence Postulate Base Angles Theorem Base of a Triangle Corresponding Parts Congruent Figures Converse of Base Angles Theorem CPCTC Equiangular Triangle Equilateral Triangle Exterior Angles of a Triangle Exterior Angle Theorem HL Congruence Theorem Hypotenuse Interior Angles of a Triangle Isosceles Triangle Legs of a Triangle Obtuse Triangle Proof Reflexive Property of Congruence Right Angle Right Triangle SAS Congruence Postulate Scalene Triangle SSS Congruence Postulate Third Angle Theorem Triangle Triangle Sum Theorem		

Vertex of a Triangle Vertical Angles Worth-knowing Vocabulary: Angle Bisector Midpoint Perpendicular Bisector Segment Bisector		
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