



Northside High School

Geometry Curriculum

Unit 2: Triangles

Unit Length: 8 days

Domain: Congruence

- Cluster 3: Apply and prove geometric theorems

Standards:

- *HSG.CO.C.10:
 - Apply and prove theorems about triangles Note: Theorems include but are not limited to: 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.

**Guaranteed Viable Curriculum*

Vocabulary to Emphasize:

- | | | |
|---------------|------------------|--------------------------|
| ● Triangle | ● Right | ● Exterior Angle |
| ● Isosceles | ● Obtuse | ● Median |
| ● Equilateral | ● Angle | ● Altitude |
| ● Scalene | ● Base Angles | ● Perpendicular Bisector |
| ● Acute | ● Interior Angle | ● Angle Bisector |
| | | ● Midsegment |



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Essential question: What are the properties of triangles?

Learning Goal	Notes	Bellwork/Exit	Practice
Students will classify different types of triangles and solve problems based on their properties.	<p>Classifying Triangles Graphic Organizer</p> <p>*resource from https://www.teacherspayteachers.com/Product/Classifying-Triangles-Graphic-Organizer-1075210</p> <p>Classifying Triangles “Cheat Sheet”*</p> <p>*resource from https://www.teacherspayteachers.com/Product/Classifying-Triangles-Cheat-Sheet-1197083</p>	BW: <ul style="list-style-type: none">• Pre-assessment	Triangle Word Problems
Students will solve to find the missing angle in a triangle.	Triangle Angle Sum Notes	BW: <ul style="list-style-type: none">• Triangle BW #1	Triangle Angle Sum Algebra Angle Sum Relay* (if time allows) *free download from TPT
Students will determine whether three side lengths make a triangle and what the range of the third side could be.	Triangle Inequality Notes *Use pipe cleaners, straws, or something else that is cut in in segments	BW: <ul style="list-style-type: none">• Triangle BW #2 Exit: <ul style="list-style-type: none">•CFA question (see below)	Triangle Inequality Practice



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Learning Goal	Notes	Bellwork/Exit	Practice
Students will construct special segments of a triangle and discover their properties.	Special Segment Notes	BW: <ul style="list-style-type: none">Triangle BW #3 Exit: <ul style="list-style-type: none">CFA question (see below)	Constructing Special Segments on Patty Paper Special Segment Card Sort* <small>* resource from: https://www.teacherspayteachers.com/Product/Special-Line-Segments-of-Triangle-Sorting-ActivityMediaAltitudeBisectors-176985</small>
Students will solve equations using the properties of midsegments and medians.	Special Segments Algebra Flashcards	BW: <ul style="list-style-type: none">Triangle BW #4	Intro to Special Segments Algebra
Students will solve algebraic equations for special segments of a triangle. Pre-AP: Students will know and apply the properties of the points of concurrency	PreAP: Points of Concurrency Notes and Practice	BW: <ul style="list-style-type: none">Triangle BW #5 Exit: <ul style="list-style-type: none">CFA question (see below)	Special Segment Algebra

CFA #1, Version 1: Angles in Triangles ***CFA #1 Revised (as discussed in PLC)

CFA #1, Version 2: Angles in Triangles *** CFA #1 Retake Revised

CFA #2, Version 1: Triangle Inequality Theorem (Don't do CFA2, as discussed in PLC)

CFA #2, Version 2: Triangle Inequality Theorem

CFA #3, Version 1: Special Segments in Triangles

CFA #3, Version 2: Special Segments in Triangles



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Unit 2 Common Summative Assessment

Unit 2 Common Summative Assessment Pre-AP

Unit 2 previous learning: Where do I start/What should they know?

8.G.5

Use informal arguments to establish facts about the angle sum and exterior angle of triangles, about the angles created when parallel lines are cut by a transversal, and the angle-angle criterion for similarity of triangles. For example, arrange three copies of the same triangle so that the sum of the three angles appears to form a line, and give an argument in terms of transversals why this is so.