

Richmond Public Schools
Department of Curriculum and Instruction
Curriculum Pacing And Resource Guide – Unit Plan



Course Title/ Course #: Geometry

Unit Title/ Marking Period # (MP#2): Triangles

Start day:

Meetings (Length of Unit): 4 days

<i>Desired Results ~ What will students be learning?</i>		
<u>Standards of Learning/ Standards</u>		
G.7 The student, given information in the form of a figure or statement, will prove two triangles are similar, using algebraic and coordinate methods as well as deductive proofs.		
<u>Essential Understandings/ Big Ideas</u>		
<ul style="list-style-type: none"> • Similarity has real-world applications in a variety of areas, including art, architecture, and the sciences. • Similarity does not depend on the position of the triangle. • Congruent figures are also similar, but similar figures are not necessarily congruent. 		
<u>Key Essential Skills and Knowledge</u>		
<ul style="list-style-type: none"> • Use definitions, postulates, and theorems to prove triangles similar. • Use algebraic methods to prove that triangles are similar. • Use coordinate methods, such as the distance formula, to prove two triangles are similar. 		
<u>Vocabulary</u>		
Triangle Similar/Similarity Proof Angle-Angle (AA)	Postulate Theorem Side-Angle-Side (SAS) Property	Distance Side-Side-Side (SSS) Corresponding Proportion/Proportional
<i>Assessment Evidence ~ What is evidence of mastery? What did the students master & what are they missing?</i>		
<u>Assessment/ Evidence</u>		
Interactive Achievement		

[Mulligan Checkpoint G.7](#)

Henrico Practice Quiz

Learning Plan ~ What are the strategies and activities you plan to use?

Learning Experiences/ Best Practice

- Practice identifying corresponding parts of triangle first using tick marks and color codes. Have students practice writing the information in proportional form. Write the proportions in different orders as well.
- Have students identify and list all the information they know from looking at diagrams and from what is given before they try to answer questions or fill in proofs
- Have students constantly given reasons and properties for marking information back up statements made about the similar triangle and its parts.
- Have students fill in proofs and explain them in groups as part of a gallery walk around the room.
- Link the concepts of coordinate distance to the measures of the sides of triangles

Technology Integrations

Gizmo
Khan Academy
Virtual Nerd
Discovery Education

Resources

Text

Geometry, ©2012, Price, et al, McGraw-Hill School Education Group page(s) 474-502
Coach book, Virginia edition, Lesson 16 page(s) 131-137
Mulligan Math in Minutes

Virginia Department of Education

[Similar Triangles](#)

Other

[Prove Similar Triangles](#)

Cross Curricular Connection

Technology

Students can explore the use of triangles in GPS systems and mapping

Extended Core/Electives

Explore the use of triangles in architecture, planning, and design of all types of structures (buildings, bridges, ramps, highways, etc.)

Triangular formations in fashion. Sports for offensive and defensive purpose

Driver's Education can discuss triangular Road signs

Art can discuss the importance in some works of being sure that there is similarity

History

Research the extensive use for triangles in the past and present and explore the origins of the concept of congruence and uniformity.

Science

Triangles used in Astronomy and Physics

English

Students can use research from History to write essays. Students can also practice proofs writing and development of reasons.