

Richmond Public Schools
Curriculum Framework
Grade 7 Honors (7/8)

Strand: Measurement and Geometry	
8.5	The student will use the relationships among pairs of angles that are vertical angles, adjacent angles, supplementary angles, and complementary angles to determine the measure of unknown angles.
Suggested Pacing	
Related Standards	
Spiral Down: 5 th Grade: <ul style="list-style-type: none"> • SOL 5.12 	Spiral Up:
Essential Questions	Common Misconceptions
<ul style="list-style-type: none"> • What are some special angle relationships and how are they useful in determining missing angle measurements? • What are the differences and similarities between angle pairs? • How can vertical, linear, adjacent, supplementary, and complementary angle pairs be used to solve problems? 	<ul style="list-style-type: none"> • Angle Identification: student have trouble identifying the angle relationship in pictures where the angles are overlapping; after identifying the angle relationship, students may also have difficulty setting up the equation and solving for the missing angle
Understanding the Standard	Essential Knowledge and Skills
<ul style="list-style-type: none"> • Vertical angles are a pair of nonadjacent angles formed by two intersecting lines. Vertical angles are congruent and share a common vertex. • Complementary angles are any two angles such that the sum of their measures is 90°. • Supplementary angles are any two angles such that the sum of their measures is 180°. • Complementary and supplementary angles may or may not be adjacent. • Adjacent angles are any two non-overlapping angles that share a common ray and a common vertex. 	<ul style="list-style-type: none"> • Identify and describe the relationship between pairs of angles that are vertical, adjacent, supplementary, and complementary. • Use the relationships among supplementary, complementary, vertical, and adjacent angles to solve problems, including practical problems, involving the measure of unknown angles.

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Vocabulary			Instructional Activities Organized by Learning Objective			
Vertical Angles	Adjacent Angles	Non-Adjacent Angles	Textbook			
Complementary Angles	Supplementary Angles	Ray			Notes	
Vertex						
Assessment			Resources			
			<ul style="list-style-type: none"> ● Print ● Technology-based 			
			Station Activities			
Cross-Curricular Connections			Tiered Differentiations			