

GEOMETRY Strand 4: Geometry and Measurement

STATE STANDARD	INSTRUCTIONAL RESOURCES	TANQUE VERDE EXTENSION	DISTRICT ASSESSMENT
Concept 1: Geometric Properties Analyze the attributes and properties of 2- and 3- dimensional shapes and develop mathematical arguments about their relationships			
	McDougal-Littel, Geometry		
PO 1. Identify the attributes of specific triangles (isosceles, equilateral, right).	Chapter 6	"What's Wrong with this Picture" Key Curriculum Press	1st Semester
PO 2. Identify the hierarchy of quadrilaterals.			
PO 3. Make a net to represent a 3-dimensional object.	Chapter 12	Paper Geometry	2nd Semester
PO 4. Make a 3-dimensional model from a net.	•	•	•
PO 5. Draw 2-dimensional and 3-dimensional figures with appropriate labels.	•	•	•
PO 6. Solve problems related to complementary, supplementary, or congruent angle concepts.	Chapter 2	•	•
PO 7. Solve problems by applying the relationship between circles, angles, and intercepted arcs.	Chapter 10	•	•
PO 8. Solve problems by applying the relationship between radii, diameters, chords, tangents, or secants.	•	•	•
PO 9. Solve problems using the triangle inequality property.	•	•	•
PO 10. Solve problems using specific case right triangles.	Chapter 5	•	1st Semester
PO 11. Determine when triangles are congruent by applying SSS, ASA, AAS, or SAS.	Chapter 9	•	3rd Quarter/2nd Semester
PO 12. Determine when triangles are similar by applying SAS, SSS, or AA similarity postulates.	Chapter 4	•	1st Semester
PO 13. Construct a triangle congruent to a given triangle.	•	•	•
PO 14. Solve contextual situations using angle and side length relationships.	Chapter 5, 8 & 9	•	1st Semester 3rd Quarter 2nd Semester

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STATE STANDARD	INSTRUCTIONAL RESOURCES	TANQUE VERDE EXTENSION	DISTRICT ASSESSMENT
<p>Concept 3: Coordinate Geometry Specify and describe spatial relationships using coordinate geometry and other representational systems</p>	McDougal-Littel, Geometry		
PO 1. Graph a quadratic equation with leading coefficient equal to one.			
PO 2. Graph a linear equation in two variables.			
PO 3. Graph a linear inequality in two variables.			
PO 4. Determine the solution to a system of equations in two variables from a given graph.			
PO 5. Determine the midpoint between two points in a coordinate system.	Chapter 1		1st Quarter 1st Semester
PO 6. Determine changes in the graph of a linear function when constants and coefficients in its equation are varied.			• • • • • • •
PO 7. Determine the distance between two points in the coordinate system.	Chapter 1		• • • • • • •

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STATE STANDARD	INSTRUCTIONAL RESOURCES	TANQUE VERDE EXTENSION	DISTRICT ASSESSMENT
<p>Concept 2: Logic, Reasoning, Arguments, and Mathematical Proof Evaluate situations, select problem-solving strategies, draw logical conclusions, develop and describe solutions and recognize their application</p>	<p>McDougal-Littel, <u>Geometry</u></p>		
<p>PO 1. Draw a simple valid conclusion from a given <i>if...then</i> statement and a minor premise.</p>	<p>Chapter 2</p>	<p>Use if...then statements from commercials</p>	<p>1st Quarter 1st Semester</p>
<p>PO 2. List related <i>if... then</i> statements in logic order.</p>			
<p>PO 3. Write an appropriate conjecture given a certain set of circumstances.</p>			
<p>PO 4. Analyze assertions related to a contextual situation by using principles of logic.</p>			
<p>PO 5. Identify a valid conjecture using inductive reasoning.</p>			
<p>PO 6. Distinguish valid arguments from invalid arguments.</p>	<p>Chapter 2 - 12</p>		
<p>PO 7. Create inductive and deductive arguments concerning geometric ideas and relationships, such as congruence, similarity, and the Pythagorean relationship.</p>			<p>3rd Quarter 2nd Semester</p>
<p>PO 8. Critique inductive and deductive arguments concerning geometric ideas and relationships, such as congruence, similarity, and the Pythagorean relationship.</p>			
<p>PO 9. Identify a counterexample for a given conjecture.</p>			
<p>PO 10. Construct a counterexample to show that a given conjecture is false.</p>	<p>Chapter 2</p>		<p>1st Quarter 1st Semester</p>

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STATE STANDARD	INSTRUCTIONAL RESOURCES	TANQUE VERDE EXTENSION	DISTRICT ASSESSMENT
Concept 2: Logic, Reasoning, Arguments, and Mathematical Proof Evaluate situations, select problem-solving strategies, draw logical conclusions, develop and describe solutions and recognize their application	McDougal-Littel, Geometry		
	PO 11. State the inverse, converse, or contrapositive of a given statement.	Chapter 2 • •	1st Quarter 1st Semester • •
	PO 12. Determine if the inverse, converse, or contrapositive of a given statement is true or false.	• • • •	• • • • • •
	PO 13. Construct a simple formal or informal deductive proof.	Chapter 2 - 12	3rd Quarter 2nd Semester
	PO 14. Verify characteristics of a given geometric figure using coordinate formulas such as distance, mid-point, and slope to confirm parallelism, perpendicularity, and congruency.	Chapter 1 & 3	1st Quarter 1st Semester