1 Transforming Geometric Objects

Topic 3: Line and Angle Relationships

ELPS: 1.A, 1.C, 1.E, 1.F, 1.G, 2.C, 2.E, 2.I, 3.D, 3.E, 4.B, 4.C, 5.B, 5.F, 5.G   **Topic Pacing:** 9 Days

Lesson	Lesson Title	Highlights	TEKS*	Pacing**
1	**Pulling a One-Eighty!** Triangle Sum and Exterior Angle Theorems	Students explore and justify the relationships between angles and sides in a triangle. They establish the Triangle Sum Theorem and use the theorem as they explore the relationship between interior angle measures and the side lengths of triangles. Students identify exterior angles and remote interior angles of triangles and explore the relationship between these angles to establish the Exterior Angle Theorem. They then practice applying both theorems to demonstrate their knowledge of triangle relationships.	8.8D	2
	Suggested Placement of Learning Individually with Skills Practice or MATHia			1
2	**Crisscross Applesauce** Angle Relationships Formed by Lines Intersected by a Transversal	Students explore the angles formed when two lines are intersected by a transversal. They use the Parallel Postulate and transformations to begin exploring and identifying the angles. The terms *transversal, alternate interior angles, alternate exterior angles, same-side interior angles,* and *same-side exterior angles* are introduced. Students are given a street map and asked to identify transversals and special pairs of angles. After measuring several angles, they conclude that when two parallel lines are intersected by a transversal, the alternate interior, alternate exterior, and corresponding angles are congruent. Students also conclude that same-side interior and same-side exterior angles are supplementary. When the lines are not parallel, these relationships do not hold true. Finally, students solve problems using the parallel line and angle relationships.	8.8D	3
3	**The Vanishing Point** The Angle-Angle Similarity Theorem	The Angle-Angle Similarity Theorem can be used to show that two traingles are simlar. From previous lessons, students should already recognize that two similar triangles have congruent corresponding angles and proportional corresponding sides. The Angle-Angle Similarity Theorem allows students to show that two triangles are similar without comparing the measures of the parts of each triangle.	8.8D	1
	Suggested Placement of Learning Individually with Skills Practice or MATHia			1
	End of Topic Assessment			1

1 Day Pacing = 45-minute Session
✱ This activity highlights a key term or concept that is essential to the learning goals of the lesson.

Day 1
TEKS: 8.8D
LESSON 1
Pulling a One-Eighty!
GETTING STARTED
ACTIVITY 1 ✱

Day 2
LESSON 1 continued
ACTIVITY 2 ✱
TALK THE TALK ✱

Day 3
LEARNING INDIVIDUALLY
🔄 Skills Practice
OR
🤖 **MATHia**

Day 4
TEKS: 8.8D
LESSON 2
Crisscross Applesauce
GETTING STARTED ✱
ACTIVITY 1
ACTIVITY 2 ✱

Day 5
LESSON 2 continued
ACTIVITY 3 ✱
ACTIVITY 4 ✱

Day 6
LESSON 2 continued
ACTIVITY 5
TALK THE TALK ✱

Day 7
TEKS: 8.8D
LESSON 3
The Vanishing Point
GETTING STARTED
ACTIVITY 1 ✱
ACTIVITY 2 ✱
ACTIVITY 3 ✱
TALK THE TALK

Day 8
LEARNING INDIVIDUALLY
🔄 Skills Practice
OR
🤖 **MATHia**

Day 9
END OF TOPIC ASSESSMENT