*1 Day Pacing = 45 min. Session

Module 1: Transforming Geometric Objects

Topic 1: Rigid Motion Transformations

Lesson #	Lesson Title	Lesson Subtitle	Highlights	TEKS	Pacing*
ELPS: 1.A, 1.C, 1.D, 1.E, 1.G, 2.C, 2.D, 2.G, 2.H, 2.I, 3.A, 3.B, 3.C, 3.D, 3.F, 4.A, 4.B, 4.C, 4.D, 4.G, 4.K, 5.E					
1	Patty Paper, Patty Paper	Introduction to Congruent Figures	Students use patty paper to indirectly measure segments and angles and use folds to make observations about a figure. They determine if figures are the same size and shape. The term *congruent figures* is defined. Students use patty paper to determine if figures are congruent. They then make conjectures about congruence, investigate their conjectures, and justify their conjectures using informal transformation language.	8.10A	2
2	Slides, Flips, and Spins	Introduction to Rigid Motions	Students develop a formal understanding of translations, rotations, and reflections in the plane. The terminology of transformations is introduced, including *pre-image, image, translation, reflection, line of reflection, rotation, center of rotation,* and *angle of rotation*. Students use patty paper to investigate each transformation, create images from pre-images, and determine the properties of each tranformation. They learn that each rigid motion transformation preserves the size and shape of the original figure, and that translations and rotations also preserve the orientation of the figure. At the end of the lesson, students state the formal name for transformations that carry figures onto congruent figures and reason that an image of a pre-image is congruent to the pre-image.	8.10A 8.10B	3

Lesson #	Lesson Title	Lesson Subtitle	Highlights	TEKS	Pacing*
3	Lateral Moves	Translations of Figures on the Coordinate Plane	Students use patty paper to explore translations of various figures on a coordinate plane. They then generalize about the effects of translating a figure on its coordinates. Students verify that two figures are congruent by describing a sequence of translations that map one figure onto another.	8.10A 8.10C	2
4	Mirror, Mirror	Reflections of Figures on the Coordinate Plane	Students use patty paper to explore reflections of various figures on a coordinate plane. They then generalize about the effects reflecting a figure has on its coordinates. Students verify that two figures are congruent by describing a sequence of translations and reflections that map one figure onto another.	8.10A 8.10C	2
5	Half Turns and Quarter Turns	Rotatins of Figures on the Coordinate Plane	Students use patty paper to explore rotations of various figures on a coordinate plane. They then generalize about the effects of rotating a figure on its coordinates. Students verify that two figures are congruent by describing a sequence of rigid motions that map one figure onto another.	8.10A 8.10C	2
6	Every Which Way	Combining Rigid Motions	Students use coordinates to determine the rigid motion used to map one congruent figure onto another. They learn about and write congruence statements for congruent triangles. Using figures on a grid, students investigate and determine a sequence of transformations that can be used to verify that figures are congruent. They then generalize the effects of rigid motions on the coordinates of figures.	8.10A 8.10C	2
End of Topic Assessment					1