

# 1 Transforming Geometric Objects

## Topic 1: Rigid Motion Transformations

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

Topic Pacing: 20 Days

Lesson	Lesson Title	Highlights	TEKS*	Pacing**
1	<b>Patty Paper, Patty Paper</b> 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 <i>congruent figures</i> 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	<b>Slides, Flips, and Spins</b> Introduction to Rigid Motions	Students develop a formal understanding of translations, rotations, and reflections in the plane. The terminology of transformations is introduced, including <i>pre-image</i> , <i>image</i> , <i>translation</i> , <i>reflection</i> , <i>line of reflection</i> , <i>rotation</i> , <i>center of rotation</i> , and <i>angle of rotation</i> . Students use patty paper to investigate each transformation, create images from pre-images, and determine the properties of each transformation. 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 an image of a pre-image is congruent to the pre-image.	8.10A 8.10B	3
Suggested Placement of Learning Individually with Skills Practice or MATHia				1
3	<b>Lateral Moves</b> 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 <b>8.10C</b>	2
Suggested Placement of Learning Individually with Skills Practice or MATHia				1
Mid-Topic Assessment				1

# Texas Grade 8: Module 1, Topic 1 Pacing Guide

165-Day Pacing









Lesson	Lesson Title	Highlights	TEKS*	Pacing**
4	<b>Mirror, Mirror</b> 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 <b>8.10C</b>	2
Suggested Placement of Learning Individually with Skills Practice or MATHia				1
5	<b>Half Turns and Quarter Turns</b> Rotations 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 <b>8.10C</b>	2
Suggested Placement of Learning Individually with Skills Practice or MATHia				1
6	<b>Every Which Way</b> 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 figures are congruent. They then generalize the effects of rigid motions on the coordinates of figures.	8.10A <b>8.10C</b>	2
Suggested Placement of Learning Individually with Skills Practice or MATHia				1
End of Topic Assessment				1

# Texas Grade 8: Module 1, Topic 1 Pacing Guide

165-Day Pacing

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	Day 2	Day 3	Day 4	Day 5
<p>TEKS: 8.10A</p> <p><b>LESSON 1</b> <b>Patty Paper, Patty Paper</b> GETTING STARTED ACTIVITY 1 *</p>	<p><b>LESSON 1</b> continued ACTIVITY 2 * TALK THE TALK *</p>	<p>TEKS: 8.10A, 8.10B</p> <p><b>LESSON 2</b> <b>Slides, Flips, and Spins</b> GETTING STARTED * ACTIVITY 1 *</p>	<p><b>LESSON 2</b> continued ACTIVITY 2 * ACTIVITY 3 *</p>	<p><b>LESSON 2</b> continued ACTIVITY 4 TALK THE TALK *</p>
Day 6	Day 7	Day 8	Day 9	Day 10
<p><b>LEARNING INDIVIDUALLY</b></p> <p> Skills Practice OR  MATHia</p>	<p>TEKS: 8.10A, 8.10C</p> <p><b>LESSON 3</b> <b>Lateral Moves</b> GETTING STARTED ACTIVITY 1 *</p>	<p><b>LESSON 3</b> continued ACTIVITY 2 * ACTIVITY 3 * TALK THE TALK *</p>	<p><b>LEARNING INDIVIDUALLY</b></p> <p> Skills Practice OR  MATHia</p>	<p><b>MID-TOPIC ASSESSMENT</b></p>
Day 11	Day 12	Day 13	Day 14	Day 15
<p>TEKS: 8.10A, 8.10C</p> <p><b>LESSON 4</b> <b>Mirror, Mirror</b> GETTING STARTED ACTIVITY 1 *</p>	<p><b>LESSON 4</b> continued ACTIVITY 2 * ACTIVITY 3 * TALK THE TALK *</p>	<p><b>LEARNING INDIVIDUALLY</b></p> <p> Skills Practice OR  MATHia</p>	<p>TEKS: 8.10A, 8.10C</p> <p><b>LESSON 5</b> <b>Half Turns and Quarter Turns</b> GETTING STARTED ACTIVITY 1 *</p>	<p><b>LESSON 5</b> continued ACTIVITY 2 * ACTIVITY 3 * TALK THE TALK *</p>





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## 165-Day Pacing



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 16	Day 17	Day 18	Day 19	Day 20
<b>LEARNING INDIVIDUALLY</b>  Skills Practice OR  MATHia	TEKS: 8.10A, 8.10C <b>LESSON 6</b> <b>Every Which Way</b> GETTING STARTED * ACTIVITY 1 * ACTIVITY 2	<b>LESSON 6</b> continued ACTIVITY 3 * TALK THE TALK *	<b>LEARNING INDIVIDUALLY</b>  Skills Practice OR  MATHia	<b>END OF TOPIC ASSESSMENT</b>