1 Transforming Geometric Objects

Topic 2: Similarity

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: 10 Days

Lesson	Lesson Title	Highlights	TEKS*	Pacing**
1	**Pinch-Zoom Geometry** Dilations of Figures	Students explore dilations on the plane. The terms *dilation, center of dilation, scale factor* or *dilation factor, enlargement,* and *reduction* are defined. Students dilate a variety of objects and figures using scale factors greater than and less than 1. They use a model to determine side lenths and angle measures after enlargements and reductions in order to verify similarity. Students connect dilations to changing image sizes in word processing and graphics software.	8.3A 8.10A	2
Suggested Placement of Learning Individually with Skills Practice or MATHia				1
2	**Running, Rising, Stepping, Scaling** Dilating Figures on the Coordinate Plane	Students build dilations on the coordinate plane as repeated geometric translations, using the origin as the center of dilation. Throughout, students create and modify conjectures about the effect of dilations with the origin as the center on the coorindates, perimeter, and area of a figure. They use dilations and transformations they learned previously to verify that two figures are similar.	8.3B **8.3C** 8.10B 8.10D	2
Suggested Placement of Learning Individually with Skills Practice or MATHia				1
3	**From Here to There** Mapping Similar Figures Using Transformations	Students determine if figures are similar through transformations. They explore what is meant by "same shape" when referring to similar figures. Students determine similarity using a single dilation and verify similarity of a variety of figures through a sequence of transformations. They then explore the relationship between images of a common pre-image under different conditions and the relationship between figures that are similar. Finally, students summarize the relationships between transformations and congruent and similar figures.	**8.3C** 8.10A 8.10B **8.10C**	2
Suggested Placement of Learning Individually with Skills Practice or MATHia				1
End of Topic Assessment				1

Texas Grade 8: Module 1, Topic 2 Pacing Guide

180-Day Pacing

TEXAS MATH SOLUTION

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
TEKS: 8.3A, 8.10A **LESSON 1** **Pinch-Zoom Geometry** GETTING STARTED ACTIVITY 1 ✱	**LESSON 1** continued ACTIVITY 2 ✱ ACTIVITY 3 ✱ TALK THE TALK	**LEARNING INDIVIDUALLY** Skills Practice OR MATHia	TEKS: 8.3B, **8.3C**, 8.10B, 8.10D **LESSON 2** **Running, Rising, Stepping, Scaling** GETTING STARTED ✱ ACTIVITY 1 ✱	**LESSON 2** continued ACTIVITY 2 ✱ TALK THE TALK ✱
Day 6	**Day 7**	**Day 8**	**Day 9**	**Day 10**
LEARNING INDIVIDUALLY Skills Practice OR MATHia	TEKS: **8.3C**, 8.10A, 8.10B, **8.10C** **LESSON 3** **From Here to There** GETTING STARTED ✱ ACTIVITY 1 ✱ ACTIVITY 2	**LESSON 3** continued ACTIVITY 3 TALK THE TALK ✱	**LEARNING INDIVIDUALLY** Skills Practice OR MATHia	**END OF TOPIC ASSESSMENT**