Topic B:

Sequencing the Basic Rigid Motions

8.G.A.2

Focus Standard:	8.G.A.2	Understand that a two-dimensional figure is congruent to another if the second can be obtained from the first by a sequence of rotations, reflections, and translations; given two congruent figures, describe a sequence that exhibits the congruence between them.
Instructional Days:	4	
Lesson 7:	Sequencing Translations (E)[1]	
Lesson 8:	Sequencing Reflections and Translations (S)	
Lesson 9:	Sequencing Rotations (E)	
Lesson 10:	Sequences of Rigid Motions (P)	

Topic B focuses on the first part of **8.G.A.2** in the respect that students learn how to sequence rigid motions. Lesson 7 begins with the concept of composing translations and introduces the idea that translations can be undone. In Lesson 8, students explore images of figures under a sequence of reflections and translations. In Lesson 9, students explore with sequences of rotations around the same center and rotations around different centers. In each of the Lessons 7–9, students verify that the basic properties of individual rigid motions remain intact and describe the sequences using precise language. In Lesson 10, students perform sequences of translations, rotations, and reflections as a prelude to learning about congruence.

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[1] Lesson Structure Key: **P**-Problem Set Lesson, **M**-Modeling Cycle Lesson, **E**-Exploration Lesson, **S**-Socratic Lesson