



## Topic A:

## Shapes and Centers of Distributions

S-ID.A.1, S-ID.A.2, S-ID.A.3

<b>Focus Standard:</b>	S-ID.A.1	Represent data with plots on the real number line (dot plots, histograms, and box plots). <sup>★</sup>
	S-ID.A.2	Use statistics appropriate to the shape of the data distribution to compare center (median, mean) and spread (interquartile range, standard deviation) of two or more different data sets. <sup>★</sup>
	S-ID.A.3	Interpret differences in shape, center, and spread in the context of the data sets, accounting for possible effects of extreme data points (outliers). <sup>★</sup>
<b>Instructional Days:</b> 3		
<b>Lesson 1:</b> Distributions and Their Shapes (P) <sup>1</sup>		
<b>Lesson 2:</b> Describing the Center of a Distribution (E)		
<b>Lesson 3:</b> Estimating Centers and Interpreting the Mean as a Balance Point (P)		

In Topic A, students observe and describe data distributions. They reconnect with their earlier study of distributions in Grade 6 by calculating measures of center and describing overall patterns or shapes. Students deepen their understanding of data distributions recognizing that the value of the mean and median are different for skewed distributions and similar for symmetrical distributions. Students select a measure of center based on the distribution shape to appropriately describe a typical value for the data distribution. Topic A moves from the general descriptions used in Grade 6 to more specific descriptions of the shape and the center of a data distribution.

<sup>1</sup> Lesson Structure Key: **P**-Problem Set Lesson, **M**-Modeling Cycle Lesson, **E**-Exploration Lesson, **S**-Socratic Lesson