



## Topic B

## Bivariate Numerical Data

## 8.SP.A.1, 8.SP.A.2

<b>Focus Standards:</b>	8.SP.A.1	Construct and interpret scatter plots for bivariate measurement data to investigate patterns of association between two quantities. Describe patterns such as clustering, outliers, positive or negative association, linear association, and nonlinear association.
	8.SP.A.2	Know that straight lines are widely used to model relationships between two quantitative variables. For scatter plots that suggest a linear association, informally fit a straight line, and informally assess the model fit by judging the closeness of the data points to the line.
<b>Instructional Days:</b>	4	
	<b>Lesson 6:</b>	Scatter Plots (P) <sup>1</sup>
	<b>Lesson 7:</b>	Patterns in Scatter Plots (P)
	<b>Lesson 8:</b>	Informally Fitting a Line (P)
	<b>Lesson 9:</b>	Determining the Equation of a Line Fit to Data (P)

In Topic B, students connect their study of linear functions to applications involving bivariate data. A key tool in developing this connection is a scatter plot. In Lesson 6, students construct scatter plots and focus on identifying linear versus nonlinear patterns (**8.SP.A.1**). They distinguish positive linear association and negative linear association based on the scatter plot. Students describe trends in the scatter plot along with clusters and outliers (points that do not fit the pattern). In Lesson 8, students informally fit a straight line to data displayed in a scatter plot (**8.SP.A.2**) by judging the closeness of the data points to the line. In Lesson 9, students interpret and determine the equation of the line they fit to the data and use the equation to make predictions and to evaluate possible association of the variables. Based on these predictions, students address the need for a *best-fit* line, which is formally introduced in Algebra I.

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