Sequence of activities to develop reasoning about comparing groups with boxplots.

Milestones: Ideas and Concepts	*Suggested Activities*
INFORMAL IDEAS OF COMPARING GROUPS	
• Informal comparisons of dot plots and histograms.	• Activities in Lessons 1 and 2 of the Distribution Unit
• Comparison of graphs to determine which has a higher and lower standard deviation.	• What Makes the Standard Deviation Larger or Smaller Activity? (Lesson 2, Variability Unit
FORMAL IDEAS OF COMPARING GROUPS WITH BOXPLOTS	
• Data as an aggregate rather than points and slices when comparing groups.	• How Many Raisins in a Box Activity (Lesson 1: "Understanding Boxplots")
• How a boxplot represents a data set, how points are "hidden" in a boxplot.	• How Many Raisins in a Box Activity (Lesson 1)
• Coordination of comparisons of center and spread in comparing groups.	• Gummy Bears Activity (Lesson 2: "Comparing Groups with Boxplots")
• How variability between and within groups are used in comparing groups.	• Gummy Bears Activity (Lesson 2)
• Advantages of using boxplots to compare groups.	• Comparing Boxplots Activity (Lesson 2)
• How to make informal inferences from comparisons of samples of data using boxplots.	• Interpreting Boxplots Activity (Lesson 3: "Reasoning about Boxplots")
• Understanding how features of data are revealed in different graphs of the same data.	• Matching Histograms to Boxplots Activity (Lesson 3)
• Integrating reasoning about shape, center and spread in different graphical representations.	• How do Students Spend Their Time Activity (Lesson 4: "Comparing Groups with Histograms, Boxplots, and Statistics")
REVISITING THE IDEA OF COMPARING GROUPS IN SUBSEQUENT UNITS	
• Variability between and within groups when making formal inferences involving two samples of data.	• Gummy Bears Revisited Activity (Lesson 4, Statistical Inference Unit)