



2022-2023 Sixth Grade Math Unit 1 Skeleton Plan

Quarter 1 (38 Days)

Unit 1 - Topic 8: Display, Describe, and Summarize Data	Timeline: 18 days
<p>Standards:</p> <ul style="list-style-type: none">● 6.DS.5: Describe numerical data sets in relation to their real-world context.<ul style="list-style-type: none">○ a. State the sample size.○ b. Describe the qualitative aspects of the data (e.g., how it was measured, units of measurement).○ c. Give measures of center (median, mean).○ d. Find measures of variability (interquartile range, mean absolute deviation) using a number line.○ e. Describe the overall pattern (shape) of the distribution.○ f. Justify the choices for measure of center and measure of variability based on the shape of the distribution.○ g. Describe the impact that inserting or deleting a data point has on the measures of center (median, mean) for a data set.● 6.DS.1: Differentiate between statistical and non-statistical questions.● 6.DS.2: Use center (mean, median, mode), spread (range, interquartile range, mean absolute value), and shape (symmetrical, skewed left, skewed right) to describe the distribution of a set of data collected to answer a statistical question.● 6.DS.3: Recognize that a measure of center for a numerical data set summarizes all of its values with a single number, while a measure of variation describes how its values vary with a single number.● 6.DS.4: Select and create an appropriate display for numerical data, including dot plots, histograms, and box plots.	
<p>Student Learning Targets (SLT):</p> <p>LEARNING TARGETS 6.DS.5</p> <ul style="list-style-type: none">○ I can describe data using mean, median, mode, range, and IQR.○ I can display and describe data using dot plots, histograms and box plots.	

*6.DS.5(f) refers to “measures of center,” and 6.DS.2 defines mode as a measure of center.

*6.DS.5(f) refers to “measures of variability,” and 6.DS.2 defines range as a measure of spread (variability).

Unit Notes:

- In elementary school, students referred to “dot plots” as “line plots.” As a reminder, line plots are not scatterplots.
- Make sure to discuss **sample size** when teaching data displays.

Prior Skills:

- Students have displayed and analyzed line plots.
- Decimal operations
- Fraction operations.

Vocabulary:

- Box plot
- Data distribution
- Dot plot
- Histogram
- Interquartile range
- Maximum
- Mean
- Mean absolute deviation
- Measure of center
- Measure of variability
- Median
- Minimum
- Mode
- Outlier
- Quartiles
- Range
- Sample size
- Skewed
- Spread
- Statistical question

Lesson Progression:

1. Recognize Statistical Questions (Lesson 8-1)
 - a. *Students only need to recognize if a question is statistical or nonstatistical. Students do not need to use data displays.*
2. Summarize Data Using Mean, Median, Mode, and Range (Lesson 8-2)
3. Impact of Inserting and Deleting Data Points on Measure of Center (SC-1)
4. Summarize Data Using Measures of Variability (Lesson 8-5)
 - a. *Mean Absolute Deviation (MAD)*
 - b. *Focus on examples like Examples #1 and #3*
5. Review (SC-1: Enrichment, N78: Median, Mode, and Range)/Mid-Unit Assessment
6. Display Data in Box Plots (Lesson 8-3)

Extended Learning:

In 7th grade:

- Summarize populations
- Use samples to draw inferences
- Use measures of center and variability

		<ol style="list-style-type: none">7. Summarize Data Using Measures of Variability (Lesson 8-5)<ol style="list-style-type: none">a. <i>Interquartile Range (IQR) from a Numerical Data Set</i>b. <i>Focus on examples like Example #2</i>8. Data Displays in Frequency Tables and Histograms (Lesson 8-4)<ol style="list-style-type: none">a. <i>Focus on Histograms within this lesson</i>9. Dot Plots (Open Up Resources Grade 6, Unit 8, Lesson 4: Dot Plots)<ol style="list-style-type: none">a. <i>In elementary school, students referred to “dot plots” as “line plots.”</i>b. <i>Used to find numerical data, measures of center, and measures of variability.</i>10. Review Data Displays (NY6-2a: Display Data in Box Plots, MN-5: Display and Interpret Data in Histograms)11. Choose Appropriate Statistical Measures (Lesson 8-6)<ol style="list-style-type: none">a. <i>Focus on examples like Examples #1 and #2</i>12. Choose Appropriate Data Displays (Open Up Resources	
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		<p>Grade 6, Unit 8, Lesson 18: Using Data to Solve Problems)</p> <p>13. Shapes of Data</p> <p>14. Summarize Data Distributions (Lesson 8-7)</p> <p>a. <i>Using shape, measures of center, and measures of variability.</i></p> <p>15. Mid-Topic Checkpoint/Performance Task (Topic 8, Pages 495-496)</p> <p>16. Review: Performance Task (Topic 8, Page 523C/D - Forms A and/or B)</p> <p>17. Review (Topic 8: Concepts and Skills Review)</p> <p>18. Unit Test</p>	
<p>Assessment: Accessible through Mastery Manager</p>			
<p>MLL Supports:</p>			
<p>Team Instructional Notes:</p>			
<p>Reflections: Statistics has involved many units that will be reviewed later in the year and would be better suited at the end of the unit.</p>			