**Shoe Length**

**CCSSM – Content (SMCs)**

**6.SP.1** Recognize a statistical question as one that anticipates variability in the data related to the question and accounts for it in the answers.

**6.SP.2** Understand that a set of data collected to answers a statistical question has a distribution that can be described by its center spread, and overall shape.

**6.SP.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.SP.4** Display numerical data in plots on a number line, including dotplots, histograms, and boxplots.

**6.SP.5** Summarize numerical data sets in relation to their context.

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**Statistical Questions:**

What are some statistical questions that could be asked regarding middle school teachers’ shoes?

**Our statistical question for today is:**

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**How are we going to gather data? What stipulations must be put into place?**

**My foot is \_\_\_\_\_\_\_\_\_\_\_\_\_\_cm long.**

**Set of shoe lengths from entire group:**

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**Analysis of Data:**

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| **Length** |  |  |  |  |  |  |  |  |  |  |  |  |
| **Tally** |  |  |  |  |  |  |  |  |  |  |  |  |
| **Frequency** |  |  |  |  |  |  |  |  |  |  |  |  |

**Create a dot plot.**

**What is a five number summary?**

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**Do we have any outliers? How do we know?**

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**Find the mean, median and mode of the data.**

**Mean: Median: Mode:**

**What is spread?**

**Range: IQR: MAD:**

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| --- | --- | --- | --- | --- | --- | --- |
| **Shoe****Length** | **Length-Mean** | $$\left|Length-Mean\right|$$ |  | **Shoe****Length** | **Length-Mean** | $$\left|Length-Mean\right|$$ |
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**Discussion on the best/most appropriate way(s) to describe the length of a middle school teachers’ shoe.**