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| **UNIT 5** |  |  |

# Lesson 18-20: Mean, median, max/min, histogram and box plots

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| Overview The purpose of the lesson is to introduce the students to mean, median, max/min, histograms, and box plots. In data analysis, these are some of the most basic and essential statistics students can look at to summarize a data set to determine information about it. Lesson Summary  * *Start with the journal: Thinking back to the bar and mosaic plots, why are we making graphical representations of our data instead of just using the numbers? Are their advantages to the different representations of data?* * *Move into the data set from CDC or use a simple data set. Explore different key points and how you could visualize that data.* * *Lead into Google sheets.* * *Explain and demo how Google sheets works – calculations and charts are the two key things.* * *Review the key terms for the day – mean, median, max/min, box plot and histogram.* * *let students run through the data set and have the calculate different stats to use for a chart.*  CS Content In this lesson, students will be looking at how data can be represented in different ways. The will also see how different tools can be used to our advantage and can run quick calculations for us to help determine stats about data. This will lead into a discussion on how to create different visualizations. |  |  | Objectives **Students will be able to:**   * Create and interpret histograms and box plots * Explain mean, median, and max/min. * Use Google sheets to explore charts and how to run calculations.  Materials and Prep  * Simple data sets * http://www.cdc.gov/healthyyouth/data/yrbs/index.htm  Resources **Student Documents**  [CDC data](http://www.cdc.gov/healthyyouth/data/yrbs/index.htm)  **Extension**   * http://content.visage.co/hs-fs/hub/424038/file-2094950163-pdf  Notes  |  | | --- | |  | |  | |  | |