

# HBCSD TECHNOLOGY LESSON PLAN

## 7th GRADE ( Lesson 3)

**Grade Level - 7**

**Lesson Title - Creating a Spreadsheet for Data Sets**

### Standards

[Math Standard - Statistics, Data Analysis, and Probability](#)

- 1.1 Know various forms of display for data sets, including a stem-and-leaf plot or box and-whisker plot; use the forms to display a single set of data or to compare two sets of data.
- 1.2 Represent two numerical variables on a scatterplot and informally describe how the data points are distributed and any apparent relationship that exists between the two variables (e.g., between time spent on homework and grade level).
- 1.3 Understand the meaning of, and be able to compute, the minimum, the lower quartile, the median, the upper quartile, and the maximum of a data set.

### Technology Competencies

- Computer Identification/Skills 3-6, 8-9
- Application Skills 10-18
- Data Processing 28-30
- Societal/Ethical Issues 48-52

### Purpose

Students will collect, organize, and represent data sets that have one or more variables and identify relationships among variables within a data set by hand and through the use of an electronic spreadsheet software program.

### Resources

- <http://office.microsoft.com/en-us/excel-help/quartile-HP005209226.aspx>
- <http://www.stathomeworkhelper.com/variance-deviation.htm>
- <http://www.mathcs.org/statistics/course/index.html>
- <http://classweb.gmu.edu/mgabel/unit2-math-web/math-excel%20info.htm>

### Supplies

- Internet accessible computers
- Network printers
- Spreadsheet software like Microsoft Excel
- Paper

### Direct Instruction

1. Review standards for computer use
2. Remind students about computer safety, saving files, and printing procedures
3. Review terms like quartile, minimum, maximum, median, and data set
4. Instruct students on how to use a spreadsheet program
5. Show sample data sets and model how to make one

### Guided Practice

1. Students create a data set based on a simple questionnaire which can be used to poll students and/or teachers
2. Students create a spreadsheet using collected data, saving often into approved medium (network file folder, individual flash drive, etc)
3. Students create different graphs like box and whiskers plot or scatterplot (home/school depending on

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capability)

### **Differentiated Instruction**

EL - pair with partner, allow additional guidance by either teacher or student mentor

GATE - polling statistics for the school

### **Assessment**

Rubric should be provided prior to guided practice. Teacher can grade based on content accuracy, requirement completion, graphics, and appearance.