



## 4.8: Creating Spreadsheets & Charts in Excel

### Prerequisite Skills and Knowledge

- ∞ Students should know how to do a keyword search on the internet, and have some basic skills in Excel. Students should know how to copy and paste information from the internet into Microsoft Word.

### Time Required

- ∞ Mini-Lesson and Guided Practice: 20 minutes

### Materials

- ∞ Computer Lab, Printer, Copy Paper, LCD projector for teacher use

### Intended Learning

- ∞ Students will create a spreadsheet showing distances from the sun in order to create a horizontal bar graph displaying data in kilometers.

### District Technology Standards Uses Technology Effectively

- ∞ Uses formulas such as sum, average and differences to create a graph or chart

### Big Ideas from Everyday Math -

- ∞ Using Numbers and Organizing Data

### Mini-Lesson

### Notes

#### Connection - preparing students' thinking

How can we visualize how far each of the planets are from the sun?

What computer application lets us display data in a graphic format?

#### Teaching - Mini Lesson

With students seated at computers, tell them they will find all of the planets average distances from the sun on the Internet. Model how to open Google, and enter in a keyword search for planets distance from the sun. Tell them they will need to copy and paste the information into Microsoft Word in order to use in their spreadsheet. Open up Microsoft Excel and go to File, then Save As and save a worksheet as Planets distance + your name.

Model how to enter the data into cells on a spreadsheet, and highlight the cells in order to make a horizontal bar graph. The chart should include the name of each planet and its distance from the sun. Explain the X-Axis and Y-axis to students and tell them why it is so important to label the unit of distance, whether it is kilometers, miles, or centimeters. Show students how they can change the color and pattern of the bars (most programs do this by clicking on the pie piece).

**Active Engagement - Guided Practice**

Students will be opening up Internet Explorer and searching for planets distances from the sun to save in Microsoft Word. Tell students they can minimize their windows in order to go back and forth in applications.

Remind them to save their notes in Microsoft Word so that they can use them for the spreadsheet.

**Link**

Students will create their horizontal bar graphs using the information from the internet, and can add an appropriate title and clip art then print their work. (Note: students will print in landscape format)

**Independent Practice**

**Teacher**

- ∞ Progress monitor students on a checksheet while you circulate through the room. Help students with any questions and offer ideas when necessary

**Students**

- ∞ Work independently, raise hand for help, and print assignment with permission from the teacher.

**Sharing/Closure**

- ∞ Showcase student work with examples from those who would like to share their work. Ask students how the charts made it easier to display and understand the data so it was more meaningful.

**Differentiation:**

Students who are excelling can choose to add clipart to their finished work, such as pictures of the solar system, etc., or create a different type of chart. Students who are struggling may use a peer tutor to help or receive individual help from the teacher.

**Assessment**

- ∞ Progress monitor each student on your class list or spreadsheet with a score of 1-4 for daily participation, and use a rubric with scores of 1-4 for completion of the project. A perfect score of “4” would be given for a finished product that includes the spreadsheet, chart

with all the planets, distances in kilometers, and correct values.