



4.7: Using Excel to Create Spreadsheets & Formulas

Prerequisite Skills and Knowledge

- ∞ Students should know that Excel is a spreadsheet program for organizing and displaying data. Students should know how to open Clip Art and insert into a document.

Time Required

- ∞ Initial Mini-Lesson and Guided Practice: 30 minutes, additional classes for completion of project, 1-2 class sessions, depending on skill level of students

Materials

- ∞ Computer Lab, chart paper to record class data, Microsoft Excel, LCD projector

Intended Learning

- ∞ Students will be able to use class data to create a simple spreadsheet in Excel, then convert their data into a chart or graph, and print

District Technology Standards Uses Technology Effectively

- ∞ Spreadsheet
- ∞ 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

Connection - preparing students' thinking

What is a chart? What kind of data do charts represent? Is there a computer program that can create charts? What is an X-axis, Y-axis?

Teaching - Mini Lesson

With students at computers, create a simple grid on the chart paper with the words, dogs, cats, birds, fish, other. Have students raise hands and tally counts for each pet on paper.

Notes

Open up Microsoft Excel using the LCD projector and show students what a spreadsheet looks like.

Define basic terms, cell, row, column, and show students how to enter data into cells. Show students how to change the height and width of the cells, and change text. In Cell A1, enter the word “dogs.”

In cell B1, enter the number of dogs that your class tallied on the chart paper. Explain to students that we are organizing the data so that the software program can create a chart or a graph by reading numbers we enter on the x-axis, (rows) and y-axis, (columns). Show students how to use the Insert Toolbar in Excel, and create a chart, (a bar or line graph will work best) Remind students they must select the cells to create the graphs by highlighting.

Active Engagement - Guided Practice

Students will open up Microsoft Excel, and save a new spreadsheet as Our Class Pets. They will enter the data from the class chart, and create their own spreadsheets. Once students have entered all their data, tell them they can copy/paste clip art from the Clipart collection to add to their documents.

Link

Students should continue to work independently, adding their information in the right rows and columns, changing text if they like, and adding clipart, as well as creating their charts. They can define the x-axis and y-axis on the chart legend also.

Independent Practice

Teacher

- ∞ Circulates in the lab to help struggling students, and monitor progress on a checksheet. Instructs students who have completed their work to print.

Students

- ∞ Complete the assignments, raise hand for help, if they need it, and notify teacher when ready to print.

Sharing/Closure

- ∞ Showcase some of the student’s work if they finish

Differentiation:

Students who are struggling may require individual help, or accommodation for more time to complete assignment.

Students who work ahead may try creating other charts with the same information, or inserting additional clipart into their work

on the board, for the whole group, de-brief and discuss what was difficult about the lesson and what was familiar. Ask students how the graphic display helps them understand data in this format.

Assessment

- ∞ Teacher can monitor progress while circulating in the classroom, on a daily participation checksheet, and take notes on student skills. A rubric score of 1-4 for the finished document can be given with a “4” the highest for including all the data, clipart, and chart on their work.