Teaching Excel
By Lorrie Jackson

WHY A TECHTORIAL?

What will I learn today?
You will learn how to teach students in grades 3-12 to use Excel to enter and manipulate data.

What hardware and/or software does the techtorial apply to?
The techtorial applies to PC or Mac computers with Microsoft Excel installed.

Which National Educational Technology Standards for Teachers does the techtorial address?
The techtorial will help teachers accomplish standard IVa in particular.

The International Society for Technology in Education (ISTE) has developed a set of National Educational Technology Standards for Teachers. Standards or Performance Indicators are included for each techtorial to help teachers and administrators improve technology proficiency. For a complete description of the standards indicated, go to NETS for Teachers.

INTRODUCING EXCEL

Excel is a software program that allows users to enter and manipulate data. Students in grades 3-12 can learn to use Excel successfully -- even if their teachers are not expert technology or Excel users. Just follow the step-by-step instructions in this techtorial to teach your students how to use some of the basic Excel tools.

> For a quick introduction to Excel for yourself, see the Education World techtorial Excel for Beginners: Using Spreadsheets to Create Interactive Grade Books.

This techtorial will help you teach students to

- Open a new Excel spreadsheet.
- Enter data.
- Change cell size.
- Sort data.
- Format borders.

- Save and print.

Students will learn the skills above as they create a graph of their TV viewing habits. Before beginning the Excel activity, write each student's name on the chalkboard. Next to each name, write the number of hours a day each student watches TV. Now it's time to use that data!

LEARN ABOUT SPREADSHEETS

Have students open Microsoft Excel. Explain that they can open Excel on a PC by clicking

- The Excel icon on the Desktop; (The icon looks like a green X inside a square.); or
- Start>Programs>Microsoft Office>Microsoft Excel; or
- My Computer>C:/>Program Files>Microsoft Office>Office>Excel.

On a Mac,

- Click the Excel icon on the Dock; or
- Click the Apple at the top left corner of the screen, then click Recent Items>Excel or Recent Applications>Excel; or
- Double-click the hard drive icon on the Desktop, then click Applications>Excel.

Opening Excel opens a new spreadsheet. Explain the following to students.

- The spreadsheet is the basic document in Excel.
- The spreadsheet contains many rectangles, called cells.
- A cell is a field where data is entered.
- Columns in the spreadsheet are vertical and are identified by letters (A, B,C, D…).
- Rows in the spreadsheet are horizontal and are identified by numbers (1, 2, 3, 4…).
- Each cell is identified by the letter at the top of its column and the number to the left of its row (A1, B4, C26...). For example, in the image below, the cell yellow cell is called cell C3.
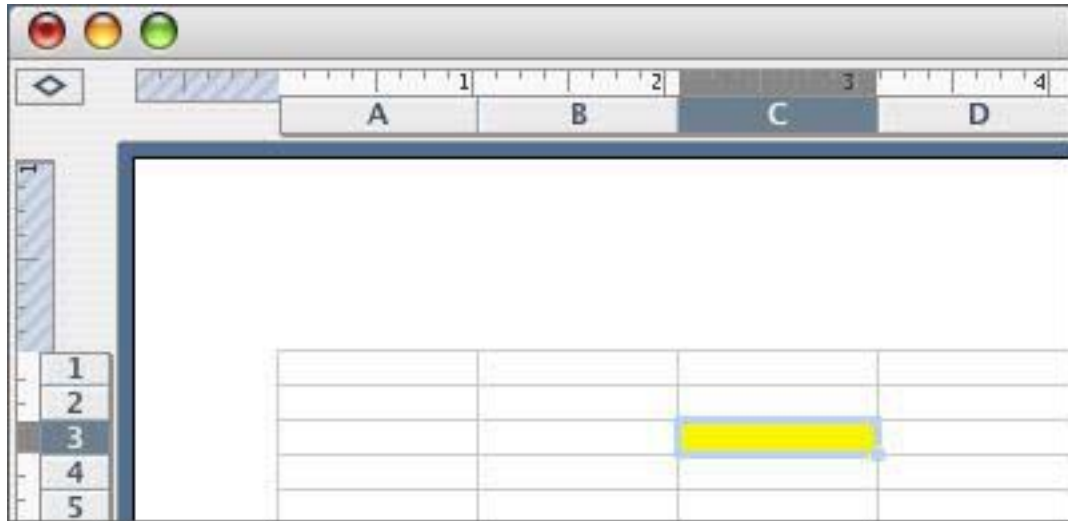
ENTER DATA

After students understand basic spreadsheet terms and layout, they are ready to enter data into their spreadsheets. Tell students to

- In cell A1, type *NAMES*.
- Continue down column A (A2, A3, A4, and so on), typing one student's name in each cell until each student's name is listed.
- In cell B1, type *TV TIME*.

- Continue down column B (B2, B3, B4, and so on), typing the number of hours per day each student watches TV.

| NAMES	TV Time	
Amelia	2	
Mario	3	
Jaylyn	2	
Donald	2	
Sarah	1	
Patrick	4	
Thomas W.	2	
Thomas R.	3	
Charity	2	
Anna	0	

- Click File>Save to save your work.

SORT DATA

Explain to students that sometimes it is necessary to arrange numerical data in a particular order -- from highest to lowest or fewest to most, for example. Tell students that they are going to arrange their TV viewing times in order, from the most hours of viewing time to the fewest hours. To do that, they

- Click cell A2, hold down the mouse button, and drag the cursor down and to the right to highlight all the cells with text in them in column A and column B.
- Go to Data>Sort in the menu bar.
- In the first drop-down menu, select TV Time (or Column B).
- Select Descending.

- Click OK.
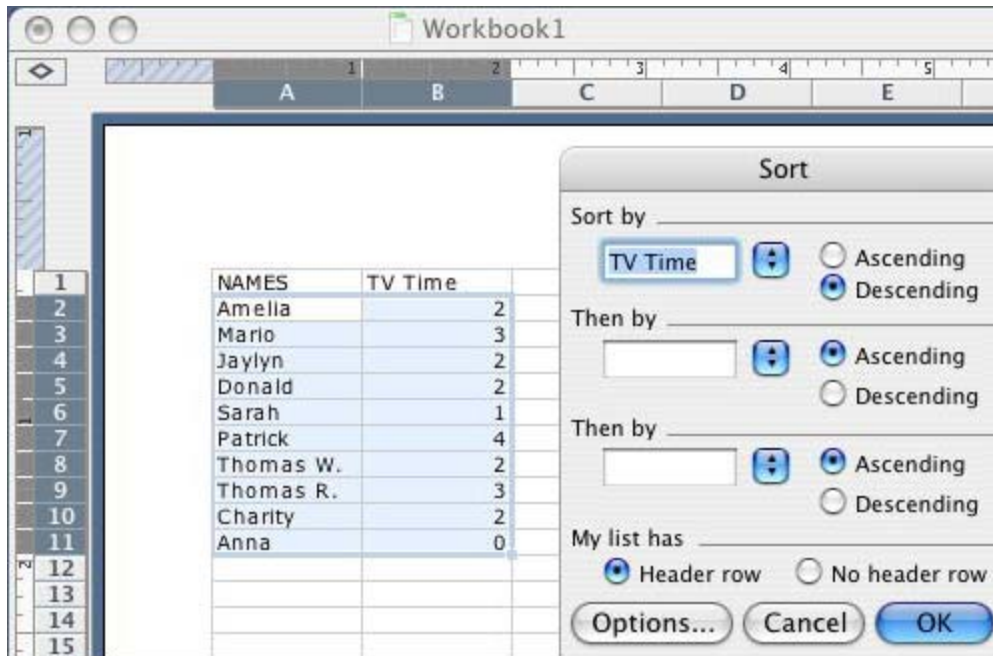
Notice that now the student(s) who watch the most TV are first and the students who watch the least TV are at the bottom of the spreadsheet.
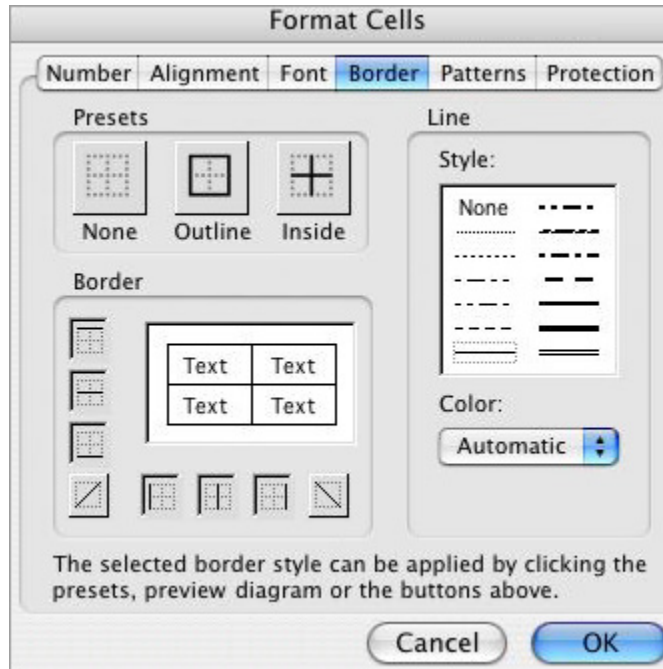- Save your work.

CREATE A BORDER

Tell students they are going to create a border around their graphs. Tell them to

- Click cell A1, hold down the mouse button, and drag the cursor down and to the right to highlight all the cells in columns A and B containing data -- just as they did to sort the data.
- Click Format>Cells then click the Border tab.

- Click the black-lined box above Outline, and then click the black-lined box above Inside.

- Hit OK. (You might need to click it twice.)
- Save your work.

Students now are ready to print the page. Tell them to:

- Make sure the entire area within the border is still highlighted.
- Click File>Print Area>Set Print Area. (Unlike Word, Excel will print lots of blank pages unless a specific print area is set.)
- Click Print.

Take the next step and create a chart using the Education World techtorial Create Charts and Graphs with Excel.

TELL ME MORE!

Where can I find more information?
Check out the many other Excel techtorials listed on the Techtorial Table of Contents page. (Scroll to the bottom of the page.) For ideas on lesson plans using Excel, see the techtorial Excel-lent Activities Across the Grades.