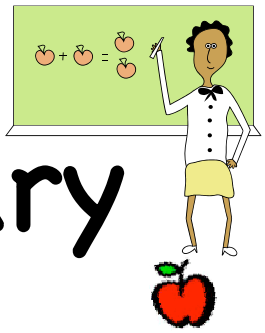


# Excel for Elementary

## TRAINING OUTLINE



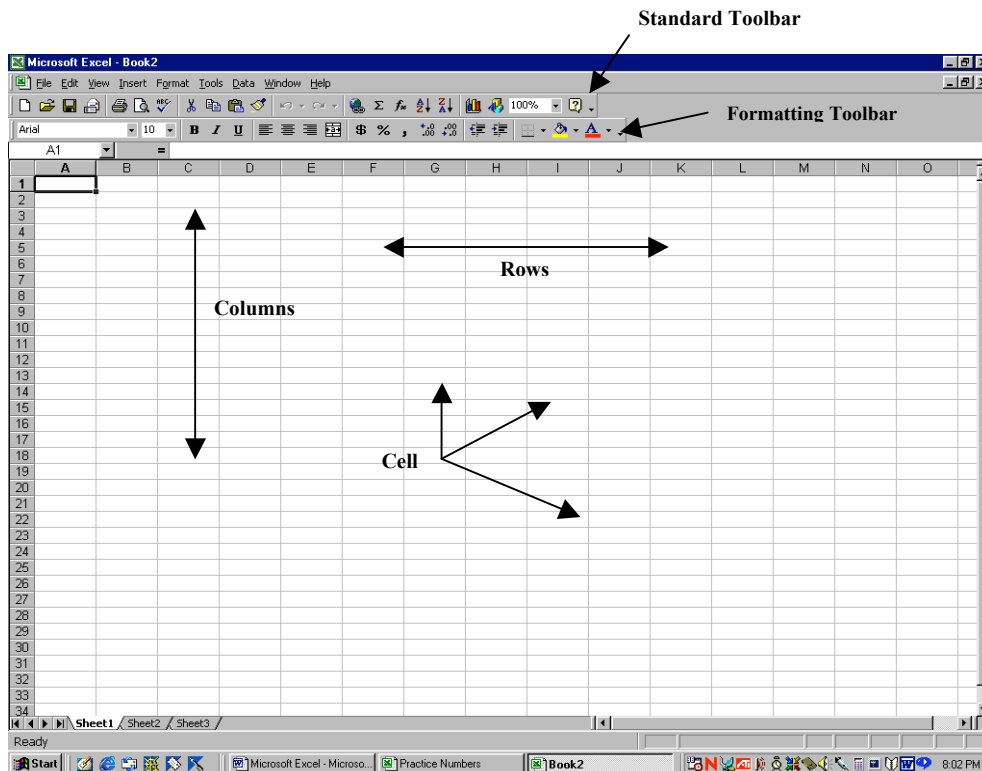
- |                                                                                                                                                                                                      |                                                                                                                                                                                              |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>• Explore parts of a spreadsheet</li> <li>• Work with text</li> <li>• Work with numbers</li> <li>• Format options</li> <li>• Insert/delete options</li> </ul> | <ul style="list-style-type: none"> <li>• Sort/Alphabetize</li> <li>• Create, manipulate, export a chart</li> <li>• Print options</li> <li>• Page setup</li> <li>• Simple formulas</li> </ul> |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

### DEFINITIONS

☉ A **workbook** is the file in which you work and store your data. Because each workbook can contain many worksheets, you can organize various kinds of related information in a single file.

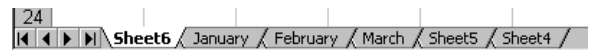
☉ Use **worksheets** to list and analyze data. Multiple worksheets can be contained in a workbook. You can enter and edit data on several worksheets simultaneously and perform calculations based on data from multiple worksheets. When you create a chart, you can place the chart on the worksheet with its related data or on a separate chart sheet.

## I. Parts of a Spreadsheet



## II. To Insert a Worksheet

1. From the Insert pull-down menu, choose Worksheet.
2. The new worksheet will appear at the bottom of the screen.

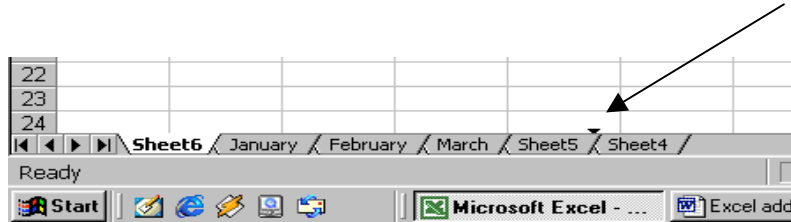


### → To Rename a Worksheet

- Double-click on the name of the worksheet and type in the new name.

→ To Move a Worksheet

- Click on the name of the worksheet and hold down the mouse button.
- Drag the worksheet to its new location.
- You will see a black down-arrow button appear to show you where the worksheet will be placed.



### III. Working With Text

Begin typing as you would in a word processor. The only difference is that in Excel, each cell's contents is specific to that cell. Even if it looks like text overlaps, it really is only located in that one cell.

- |               |                                                           |
|---------------|-----------------------------------------------------------|
| ENTER         | Moves cursor <b>down</b> one cell at a time.              |
| SHIFT + ENTER | Moves cursor <b>up</b> one cell at a time.                |
| TAB           | Moves cursor to the <b>right</b> one cell at a time.      |
| SHIFT + TAB   | Moves cursor to the <b>left</b> one cell at a time.       |
| ARROW BUTTONS | Moves cursor one cell at a time in <b>any direction</b> . |

→ Merging and Splitting Cells

**Merging:** You may want to merge cells so that multiple cells become one. An example of this would be centering a title above a table. To merge cells, take the following steps:

- Select all cells spanning the area you want to merge. Click on the Merge Cells icon; this will also center the text.



OR

- Select all cells spanning the area you want to merge.
- In the Formatting Palette, under Text Alignment, choose Merge cells. To center the contents, click the Center alignment button.

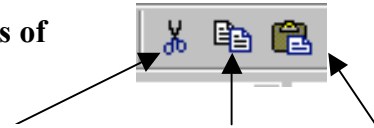
	A	B	C	D	E
1	5th Grade Test Scores				
2					
3	Name	Test 1	Test 2	Test 3	Test 4
4	Alpha	50	39	50	50
5	Beta	50	40	50	50
6	Gamma	42	42	50	42

	A	B	C	D	E
1	5th Grade Test Scores				
2					
3	Name	Test 1	Test 2	Test 3	Test 4
4	Alpha	50	39	50	50
5	Beta	50	40	50	50
6	Gamma	42	42	50	42
7	Delta	40	43	45	40
8	Epsilon	45	45	43	45

- **Splitting:** Unlike Word and PowerPoint tables, in Excel you can only split cells that have been merged. To split a merged cell, simply select the merged cell and deselect Merge cells in the Formatting Palette.

### → Cut, Copy, Paste

- Highlight the cells you would like to cut or copy.
- Click the **scissors** to **Cut** (⌘ + X) or the **two pieces of paper** to **Copy** (⌘ + C).
- Click in the cell where you would like the text to appear. (This can be in the same worksheet or in another worksheet or document.)
- Click the **clipboard** (⌘ + V) to **Paste** the text.



## IV. Inserting Numbers

Simply begin typing the numbers into the appropriate cell. You will notice that numbers are right justified. If your numbers are appearing left justified, you have inserted some other keystroke before a number, making it text.

If you are inserting rows and columns of numbers and you would like to use the ten-key, simply highlight the area in which the numbers will go, then begin entering the numbers starting

15	7	327	33
67	43	90	689
88	557	34	652
944	433	89	58
673	77	54	443
45	89	88	784

from the top left-hand corner. As you press the enter key, the numbers will be placed first down, then over one column and down, and so forth until all the spaces are filled.

## V. Formatting

### → To Format Rows and Columns: Width and Height

**Automatically** format the width of a column to fit the widest text in the column by double-clicking on the black line between the column the text is in and the column to the immediate right. You will find a **little black line** on the top of the document next to the column indicators. Rows will automatically adjust to changes in point size of text.

To automatically change column A, double-click between A & B.

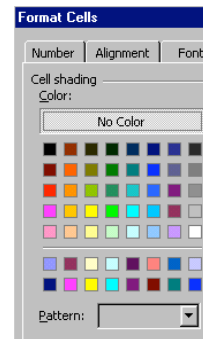
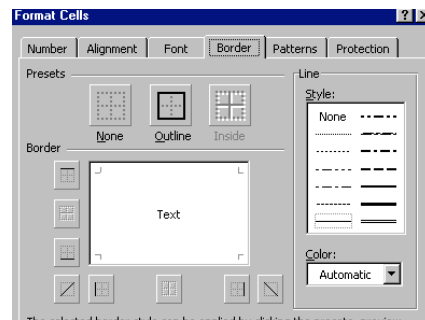
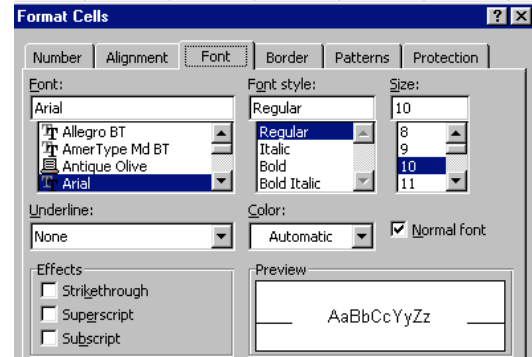
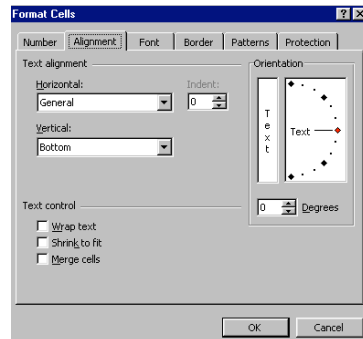
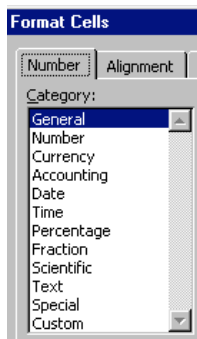
	A	B	C	D	E
1	San Juan School District				
2					
3	Last Name	First Name	Address	Phone	Email
4					
5					
6					
7					

**Manually** change the cell width and height by placing your cursor on the line between two rows or columns until the cursor becomes a black line with two arrows pointing opposite ways. From here, move the columns/rows to the desired width/height.

	A	B	C
1	5th Grade Test Scores		
2			
	Name Test 1 Test 2		
	Alpha	50	39

## → Formatting Cells

To format cells, simply click on any cell or group of cells, then right-click (or Control + click) somewhere in the highlighted area **or** choose Cells from the Format pull-down menu. To format number displays, open the Format Cells dialog box, click on the Number tag. Choose whichever format makes sense for the task.



## → Fill Color & Text Color

You can change fill and text color from the Format menu, then Cells dialog box mentioned above, but you can also change those colors more quickly from inside Excel. You'll have to have the Draw toolbar showing in order to use these icons. To get the draw toolbar (which will automatically appear at the bottom of the screen), click on the View pull-down menu. Click on Toolbar, then in Drawing.

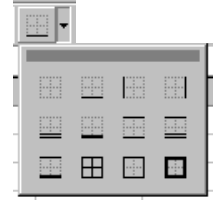
Click in a cell to highlight it, then click on the down arrow to the right of any of the three buttons to see more color options. You may also do this for a group of cells.



## → Cell Borders (Make borders show up when you print)

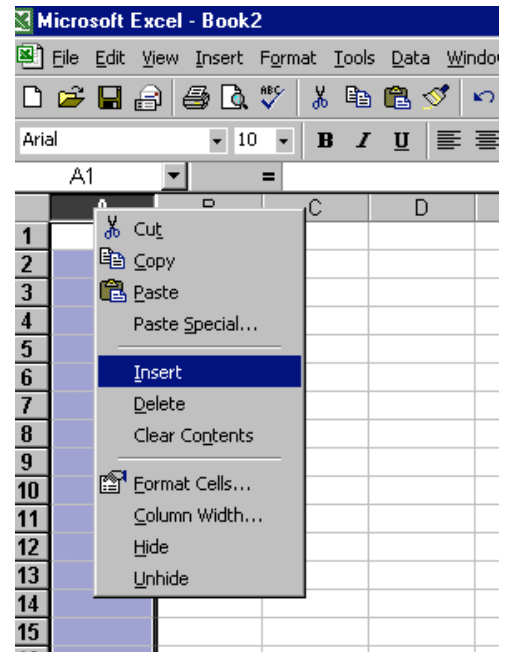
To put borders around cells:

1. Highlight the cell/cells around which you would like to place a border.
2. Click on the down arrow to the right of the cell border icon OR choose Borders and Shading from the Formatting Palette OR choose Format, Cells and choose Borders.
3. Choose the border that you would like to use.

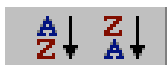


## VI. To Insert or Delete Columns and Rows

Simply click on the corresponding column letter or row number one time so that the entire row or column is highlighted. Right click (Control + click) somewhere on the highlighted area and choose Insert or Delete from the menu. You can also use the Insert menu. HINT: If you are inserting a column, the **new column** will be inserted to the **left** of the highlighted column. If you are inserting a row, the **new row** will be inserted **above** the highlighted row. As many columns and rows are highlighted will be inserted (5 rows highlighted=5 new rows added).

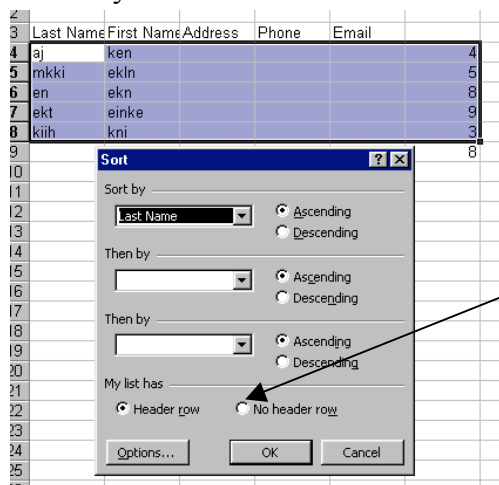


## VII. Sorting



Simply highlight the items you would like to sort. Click on the sort icon (either ascending or descending) from the standard toolbar. You can also sort numbers the same way.

You may do a more advanced sort whereby you will sort several columns at the same time. To



do this, highlight all information to be sorted. From the Data pull-down menu, choose Sort. Specify the column name to be sorted first, then the column name to be sorted second, and third if you need it. You may also specify whether you would like these columns to be sorted in ascending or descending order.

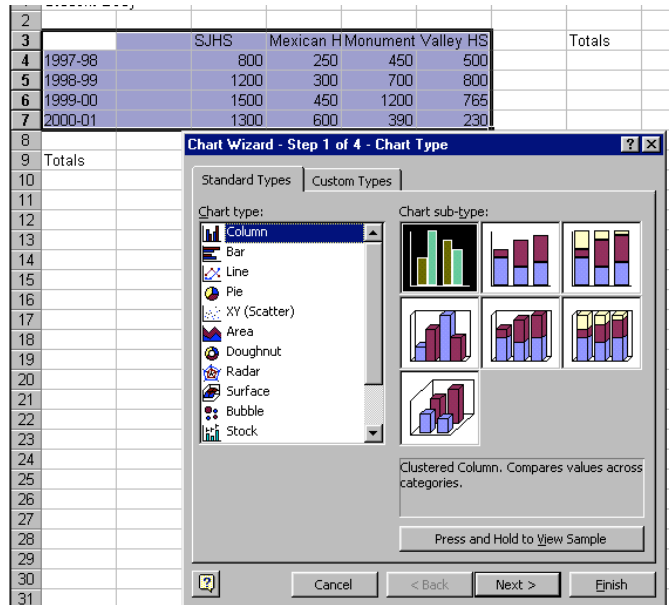
## VIII. Charts

Once you have data in your spreadsheet, you may use the chart feature to create any kind of chart you can think of to interpret your data.

1. Simply highlight the data to go in the chart.
2. Then click on the chart icon.
3. You will be walked through dialog boxes that will enable you to customize your chart.

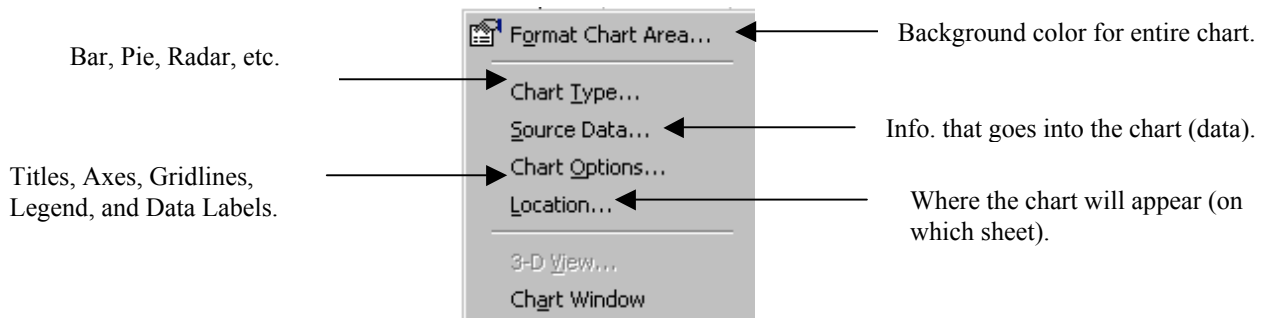


Once the chart is made, you may make changes by **double-clicking** on any part of it to change it. You may also try **right-clicking** to find menu items that will help you.



### → Making Changes to Charts

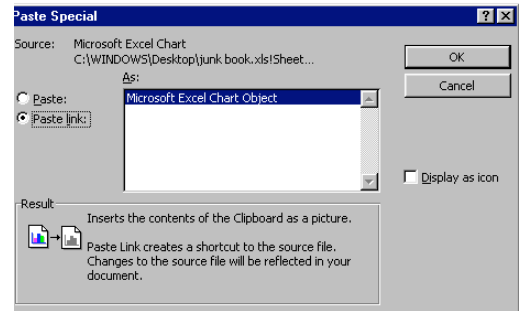
1. To make any changes to color, text size, background color, etc. **double-click** on the item you would like to change.
2. To make changes to the type of chart, or any information that you filled in when you were working with the wizard, then **right-click (or Control + click for Macs)** in the white area **above the chart** area and choose from the options that appear in the menu.



## → Paste Special

Paste Special will allow you to insert the chart you have created in Excel into other programs like Word and PowerPoint. The difference in using the special paste is that as the chart is changed in Excel, it is automatically updated in the other program as well.

1. Create a chart in Excel.
2. Highlight the chart.
3. Copy the chart (Control + C or  $\text{⌘} + C$ ).
4. Switch to the program into which you would like to paste the chart. Choose Paste Special from the Edit pull-down menu.
5. Click on the Paste Link option, then OK.



## IX. Simple Formulas (A formula is an equation that performs calculations in a cell.)

\*TURN ON THE FORMULA BAR (View, Formula Bar)

→ **Functions** (Functions are predefined formulas that perform calculations by using specific values, called arguments, in a particular order, or structure. For example, the SUM function adds values or ranges of cells, and the PMT function calculates the loan payments based on an interest rate, the length of the loan, and the principal amount of the loan.)

Excel provides useful functions that allow you to quickly insert formulas for more tasks than any one person will ever use! The most common is the SUM, but we will also go over average. The others you can play with or call the trainer for help.

\*The **SUM function**: This function will quickly allow you to perform a sum of numbers in columns or rows.



1. Simply click once in the cell where you would like the sum to go (under a column of numbers or to the right/left of a row of numbers for the easiest use of the function).
2. Click on the sum icon. Excel will automatically find the numbers above or to the left/right of that cell.
3. If the range selected is correct, simply click enter. *HINT: If other numbers are required for the sum, click on those cells, then hold down the control key and select the others.*
4. When you are finished, press enter.

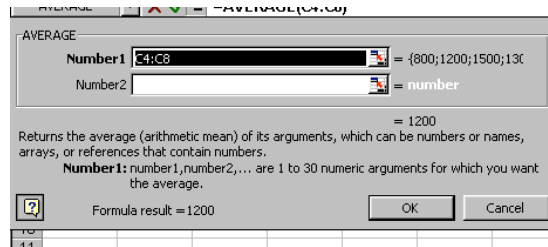
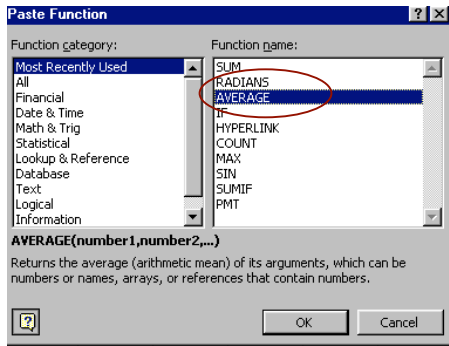
SJHS	Mex
800	
1200	
1500	
1300	
=SUM(C4:C8)	

\*To get an **AVERAGE**: Take a range of cells and calculate an average.

1. Click once in the cell where you would like the average to go.
2. Click on the function icon.
3. Choose average (if average is not one of your options, click on the statistical menu to the left of the dialog box, then choose average from that list).
4. You must now choose a range like you did for the sum function. Click on the red arrow to select the range.



5. Click Enter.
6. Click OK.



### → Adding Numbers That Are Not In-Line

You do not have to add numbers together that are physically together on the worksheet. You may add any cell to another and put the answer anywhere as well.

1. Highlight the cell in which you would like the answer to appear.
2. Choose the AutoSum icon.
3. Choose the range of cells by clicking on a cell, then holding down the Ctrl key (Apple key on a Mac) to highlight other cells.
4. Press Enter on the keyboard.

### → Dividing a Sum by a Constant

You may want to divide the sum by a constant number. This is especially useful for calculating grades. For example, the points earned by the students will be divided by the points possible, which will stay the same no matter what the student's score is.

1. Calculate the sums.
2. Choose a row or column that will hold the percentages. This should be a blank row or column so that the only text inside will be the percentages. You may want to name the column or row as well by putting a title in place.
3. Each grade (in this example) will be calculated by the total possible (cell H2 in this case).
4. For Sally's score, you highlight the cell in which her percentage would be placed (I3). Then you would enter the following formula:  $=H3/SH2$
5. The \$ sign keeps the column and row constant.
6. The percentage should appear in the cell in decimal form.
7. You may change the amount of decimal places with the Increase Decimal icon or you may want to change the decimal into a percentage with the percentage icon.
8. Now you can copy the formula to the other students using the black square on the bottom right side of the highlighted cell (like we did times, days of the week, etc.).

	A	B	C	D	E	F	G	H	I
1	Names	A1	A2	A3	A4	A5	A6	Total	Percent
2		100	100	100	100	100	100	600	
3	Sally	78	86	74	83	85	47	453	
4	Jaime	77	77	67	82	87	86	476	
5	Maurice	88	95	87	85	55	88	498	
6	Spencer	99	97	58	76	74	99	503	
7	Allen	89	67	85	73	86	99	499	
8	Cory	98	87	87	84	48	76	480	
9	Joe	96	97	89	64	67	88	501	

	A	B	C	D	E	F	G	H	I
1	Names	A1	A2	A3	A4	A5	A6	Total	Percent
2		100	100	100	100	100	100	600	
3	Sally	78	86	74	83	85	47	453	0.76
4	Jaime	77	77	67	82	87	86	476	
5	Maurice	88	95	87	85	55	88	498	
6	Spencer	99	97	58	76	74	99	503	
7	Allen	89	67	85	73	86	99	499	

1	Names	A1	A2	A3	A4	A5	A6	Total	Percent
2		100	100	100	100	100	100	600	
3	Sally	78	86	74	83	85	47	453	0.76
4	Jaime	77	77	67	82	87	86	476	
5	Maurice	88	95	87	85	55	88	498	
6	Spencer	99	97	58	76	74	99	503	
7	Allen	89	67	85	73	86	99	499	
8	Cory	98	87	87	84	48	76	480	
9	Joe	96	97	89	64	67	88	501	

1	Names	A1	A2	A3	A4	A5	A6	Total	Percent
2		100	100	100	100	100	100	600	
3	Sally	78	86	74	83	85	47	453	0.76
4	Jaime	77	77	67	82	87	86	476	0.79
5	Maurice	88	95	87	85	55	88	498	0.83
6	Spencer	99	97	58	76	74	99	503	0.84
7	Allen	89	67	85	73	86	99	499	0.83
8	Cory	98	87	87	84	48	76	480	0.80
9	Joe	96	97	89	64	67	88	501	0.84

## → Freeze Panes

Freezing panes will allow you to view information on your spreadsheet (like name and assignments) as the other information is scrolled to the right or toward the bottom of the spreadsheet.

To freeze panes:

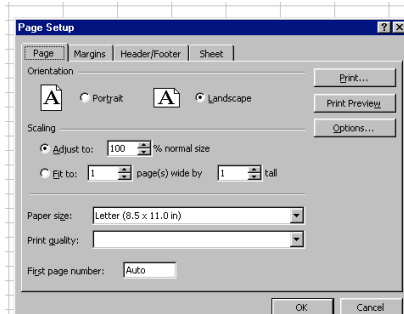
1. Click one time in the cell that is **below** and **to the right** of the affected area.

From the Window pull-down menu, choose Freeze Panes.

## X. Page Properties

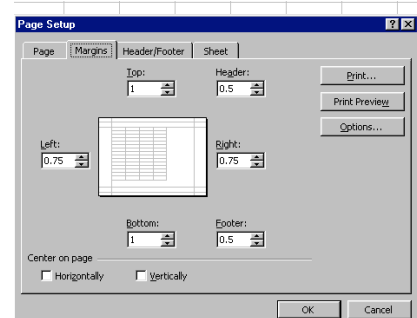
To make changes to the look or orientation of the page, or to change Margins, add Headers and Footers, use the Page Properties. To get there:

1. From the File pull-down menu, choose Page Setup.
2. Choose from the different tabs that are available to perform the different functions.

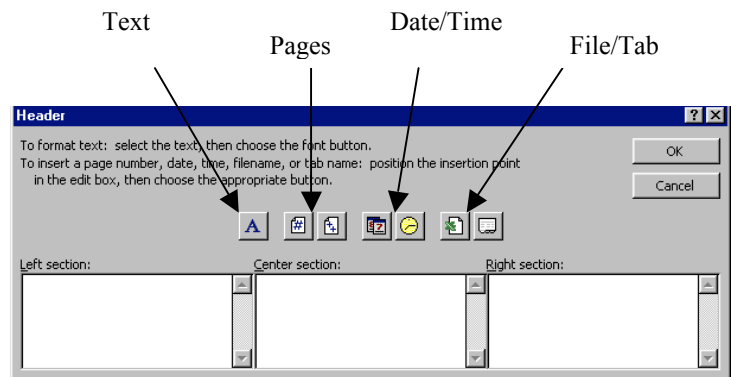
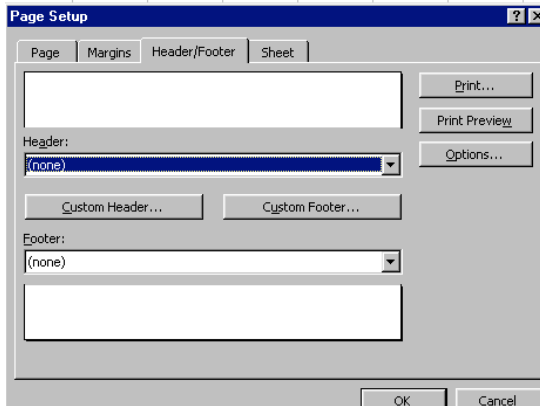


- The **Page** tab allows you to change the paper from **portrait** to **landscape** to help fit all the information on the page.
- The **Adjust to:** allows you to scale the spreadsheet to a certain percentage.
- The **Fit to:** forces the spreadsheet to fit to a certain number of pages.
- You may want to do a **Print Preview** to see what the spreadsheet will look like when printed.

- The **Margins** tab allows you to set the margins for the page.
- There is also **Header** and **Footer** space that you can select if you need more room for them in the document.
- On the bottom of the dialog box, you will see the **Center on Page** options. This will center the entire spreadsheet either vertically or horizontally on the page.
- You may want to do a **Print Preview** to see what the spreadsheet will look like when printed.
- The **Header/Footer** tab allows you to add a title to your page and/or assign page numbers, file names, etc. to the document.
- Click on the Custom Header or Custom Footer buttons. You will see the dialog boxes shown below.



- You may type in your own text or use the buttons above the windows to insert specific information into the header/footer.



## XI. Printing the Spreadsheet

There are many options when printing a spreadsheet. Here are some tips to be aware of:

- Try to turn your paper to Landscape instead of Portrait.
  - From the File pull-down menu, choose Page Setup.
  - Click on the radio button next to Landscape.
- You may want to print the entire workbook, or just one sheet. To set up these changes:
  - From the File pull-down menu, choose Print.
  - Click on the option in the Print dialog box to specify whether or not you would like to print the entire workbook.
- You may also just print what is selected.
  - Highlight the information you would like to print.
  - From the Print dialog box (see #2 above), choose Selection.



Excellent spreadsheet resource: <http://www.forsyth.k12.ga.us/kadkins/spreadsheet.htm>