Microsoft Office Excel is a powerful tool used to create and format spreadsheets. Spreadsheets allow information to be organized in rows and tables and analyzed with automatic mathematics. Spreadsheets are commonly be used to perform many different types of calculations.

If you have any questions, feel free to ask a TLC staff consultant for assistance during staffed hours at your center.

In this tutorial, learn how to:

- Navigate Cells
- Manipulate Data
- Use Formulas and Functions
- Create Charts and Tables



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Getting Started

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Definitions

Workbook vs. Worksheet – when you open Excel, a new file is created called Book 1 (until you name it differently). It is called "Book" because it is a Workbook that is initially made up of three Worksheets (accessible from the tabs in the lower left corner of your excel window - see Fig. 1). Think of a three ring binder with three sheets of paper in it. As with a binder, you can:

- Add sheets to your Workbook: Insert > Worksheet, or click on the new worksheet tab to the right of the tabs for your existing worksheets
- **Delete worksheets:** by right-clicking on the tab of the worksheet you wish to delete, then selecting "delete"
- Re-arrange them: by clicking on the worksheet tab and dragging it to the location you desire
- **Rename worksheets:** by double-clicking on the worksheet title

Cell – cells are the basic rectangular building blocks of a spreadsheet. They are assigned an address, generally referred to as a cell reference, according to their column and row (e.g. the cell in column B at row 3 is referenced as cell B3).

<u>Row</u> – rows travel horizontally and are numbered.

Column – columns travel vertically and are assigned letters.

Formula – a mathematical formula used to calculate a result based on data from one or more other cells. Often they consist of some combination of the standard mathematical operators (+, -, *, /) (e.g.: =(A1+A5)/B13), but they may also include functions (see below). When you type a formula into a cell, that cell will generally display the result obtained by the formula, rather than the formula itself.

Functions – pre-written formulae that perform common (and not so common) calculations, such as summation and averaging. You can combine many functions and operators in a single formula to obtain more complex results (e.g.: =SUM(A1:A13)).



Updated by Rachael Steller (Summer 2008)

Ribbon

The **Ribbon**, a panel that houses the command buttons and icons, organizes commands as a set of **Tabs**, each grouping relevant commands (see Fig. 2 below). Each application has a different set of tabs which expose the functionality that application offers. For example, while Excel has a tab for the Graphing capabilities, Word does not feature the same; instead it has tabs to control the formatting of a text document. Within each tab, various related options may be grouped together. The Ribbon is designed to make the features of the application more discoverable and accessible with fewer mouse clicks as compared to the menu-based UI used until Office 2007. It is not possible to remove the Ribbon or replace it with menus with the normal Office 2007 functions. However, the Ribbon can be hidden.

*Additionally, the **file button** has been replaced by the Microsoft office sign in the upper left corner and is called the **"Office Button."**



Navigating Cells

To select:	Do this (If you are left-handed use Right click in place of Left):
a single cell	Left click on it
a range of adjacent cells	Drag from the first cell to the last cell, or click on the first cell, hold the Shift key and click on the last cell (scrolling if necessary)
non-adjacent cells or ranges	Hold CTRL (Windows) or Command (Mac) key and click or drag
an entire row or column	Left click on the row or column heading
all cells	Left click on the blank header in the upper left corner
the next cell to the right	Use the Tab key
the next cell down the column	Use the Enter key
the A1 Home cell	Press Ctrl + Home keys together
the last cell in a sheet	Press Ctrl + End keys together
the cells around the active cell	Press Ctrl + Shift + 8 keys together (Select Region)

Data

Entering Data/Text

Just click on the cell and type away! You can also copy text or data from another source (a word document, another cell, etc.). Just right-click on the cell and select "Paste." If you are working on a Mac (or for whatever reason cannot right-click), go to the "Home" tab on the ribbon and select "Paste."

Important: if you are copying data that was produced in excel using a formula, especially if you are copying it to a different sheet or book, make sure you paste only the data, not the formula. To do this, copy the cell(s) as usual, then right-click on the cell where you would like to paste the number(s) and select "Paste Special." A box will pop up with a number of different options. Under the Paste section, click on the bubble that says Values and then click OK. This is very important when you are transferring data from one sheet to another sheet or book, because the formula will reference cells in the new sheet that may have different numbers or no numbers at all. This will alter your data to reflect the data in the cells that the formula recognizes.

Editing Data/Text

If you want to entirely replace the data that you previously entered into the cell, just click on it and type the new data. The old data will automatically be erased.

If you want to edit data in a cell, click on the cell, then go up to the formula bar and edit the data that appears there (see Fig. 3). If you want to delete part of your entry, just use the "backspace" key as usual. If you want to delete the entire contents of a cell (or multiple cells), select the cell(s) you want to clear and press the "delete" key.



Autofill

Autofill allows you to quickly fill data in a series (e.g. months, days of the week, or a numeric series) into adjacent cells.

Using Autofill with a text series

To use the Autofill function with text, type in the first word of the series (e.g. January), then rest your mouse on the bottom right corner of that cell. The cross will switch from white to black: this is the autofill cross (see fig. 4). Click and drag the series down or across the number of cells you would like to fill with this series.



Excel knows how to Autofill months (January or Jan) and days of the week (Monday or Mon). You can teach Excel to Autofill other text series. First, click on the Office Button and choose "Excel Options" in the lower right corner of the menu. In the "Popular" category (the one that appears automatically), click on "Edit Custom Lists…" (see fig. 5).

Papular Permulas	Change the most popular options in Excel.	
Proofing	Top options for working with Excel	
Save	🛃 Show Mati Toolber on selection 🗇	
Advanced	Enable just Premaw(1) Show Developer table Ribbon (1)	
Cuitomize	Always une Clear(ppe	
Add-Ins	Eplericheme: Blue M	Click to
Trust Center	Septenting style: Show feature descriptions in Screentings	Create a Cus-
Secontret	Create lists for use in sorts and fill sequences Edit Custam Lists.	LOIII LIST



When the Custom Lists window appears, select "New List" in the column on the left (it will probably already be selected) and type your whole list in the column on the right (see fig. 6). You can also import a list you have already typed into cells by clicking on the import symbol (see fig. 6), selecting the list you wish to import, and pressing "Enter." Click "OK," and from now on you can type the first letter of the list, and just autofill the rest!

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