

Opening Microsoft Word 2007 in the practical room

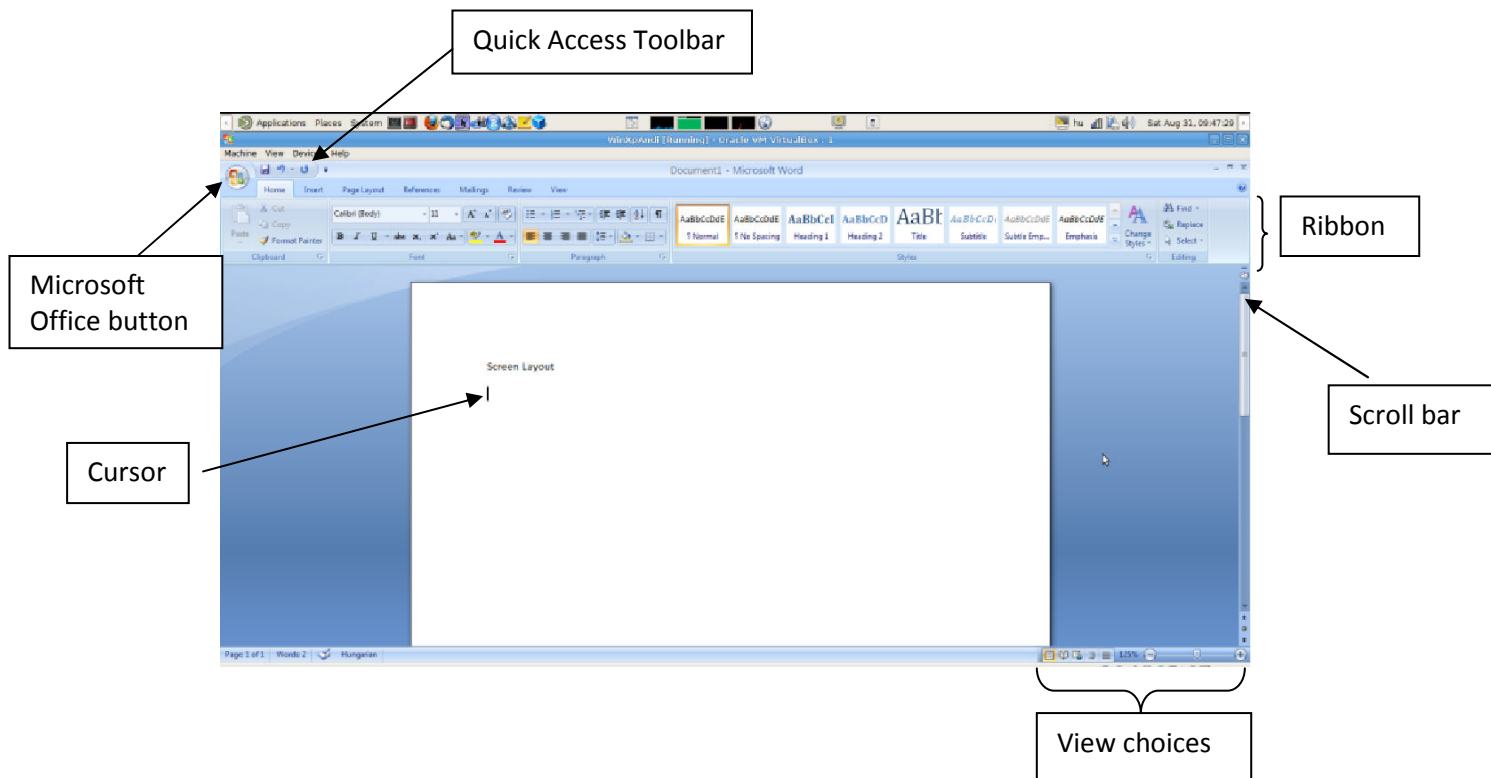
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1. **Nyelvi beállítások az Office 2007-hez** (Language settings for Office 2007 (not 2003))→ English.
2. Double click on the **Word 2007** icon on your desktop.
3. View / Zoom / Page width.
4. View / Show/Hide / Turn on the ruler (check the checkbox).
5. Home / Paragraph / Show paragraph marks and other hidden formatting symbols (top right icon).
6. Set the margins (you can use a real ruler).

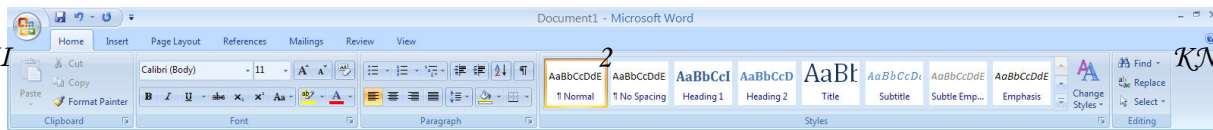
Screen Layout



The Microsoft Office Button

You click on it to see these options: New, Open, Save, Save As, Print, Prepare, Send, Publish and Close.





The Ribbon

The Ribbon is the panel above the document. It has seven tabs: Home, Insert, Page Layout, References, Mailings, Review, and View. Each tab is divided into groups. The groups are collections of features designed to perform functions. Commonly used features are displayed on the Ribbon, to view additional features within each group, click on the arrow at the bottom right of each group. A blue information box will pop up just below where you stop your pointer.

Home: Clipboard, Fonts, Paragraph, Styles, and Editing.

Insert: Pages, Tables, Illustrations, Links, Header & Footer, Text, and Symbols

Page Layout: Themes, Page Setup, Page Background, Paragraph, Arrange

References: Table of Contents, Footnote, Citation & Bibliography, Captions, Index, and Table of Authorities

Mailings: Create, Start Mail Merge, Write & Insert Fields, Preview Results, Finish

Review: Proofing, Comments, Tracking, Changes, Compare, Protect

View: Document Views, Show/Hide, Zoom, Window, Macros

To remove the toolbar, **right** click on the blue section beside the Ribbon. Choose Minimize the Ribbon. To view again, do the same.

Quick Access Toolbar

The quick access toolbar is a customizable toolbar that contains commands that you may want to use frequently. You can add items to it. Right click on any item in the Office Button or the Ribbon and click on Add to Quick Access Toolbar and a shortcut will be added to the Quick Access Toolbar.

Moving in the text

The Cursor

The cursor is the short vertical flashing line on your screen.

- The cursor shows you where you will start typing in a Word document.
- When you are using the Tools in Microsoft Word your cursor will change to an arrow. This is called a pointer.

Scrolling

- Your **scroll bar** is at the right-hand side of your screen.
- Click on the **up/down arrow** to go up/down the page.

INFORMATION TECHNOLOGY FOR MANAGERS

Hold down the left mouse button to scroll up and down the screen more quickly.

- The arrow keys on your keyboard move your cursor around.
- To make a letter a capital letter:
 - *Hold down the **Shift** and the letter key at the same time.*
- For the signs on your keyboard:
 - *Hold down the **Shift** and the number key at the same time.*
- The **Shift** keys are on both sides of the keyboard.
- The **Space bar** makes spaces between words when typing. Tap the bar one time to make a space.
- Use the **Enter** key to move your cursor to finish the line and make a new one.
- The **Backspace** key deletes everything to the left of the cursor.
- The **Delete** key will erase everything to the right of the cursor.
- To make the cursor go to the end of the line press **End**.
- To make the cursor go to the start of a line press **Home**.
- To make the cursor go to one page up/down press **Page Up/Page Down**.
- To make the cursor go to the top/end of the document press **Ctrl+Home/Ctrl+End**.

Selecting text

- Put the cursor at the beginning or end of the words you want to select.
- Put your finger on the left mouse button.
- Hold down the left mouse button.
- Move the mouse across the words.
- Lift up your finger.
- The word will be highlighted in blue. When this is done, you can move words or change the size, the colour, and the style of the words on the computer.

Alternatives

To select a **word**, double click within the word.

To select a **paragraph**, triple-click within the paragraph.

To select the entire document: **Home/Editing/Select/Select All** or press **Ctrl+A**

To Deselect

Click your mouse on any WHITE part of the page to deselect.

There are several ways to create new documents, open existing documents, and save documents in Word:

Microsoft Office Button / New / Blank document

Opening an Existing Document

Microsoft Office Button -> Open -> Choose from the list

Saving a Document

Microsoft Office Button/ Save or Save as

or

Press **Ctrl+S** on the keyboard,

or

Click the **File** icon on the Quick **Access Toolbar**

Working on Multiple Documents

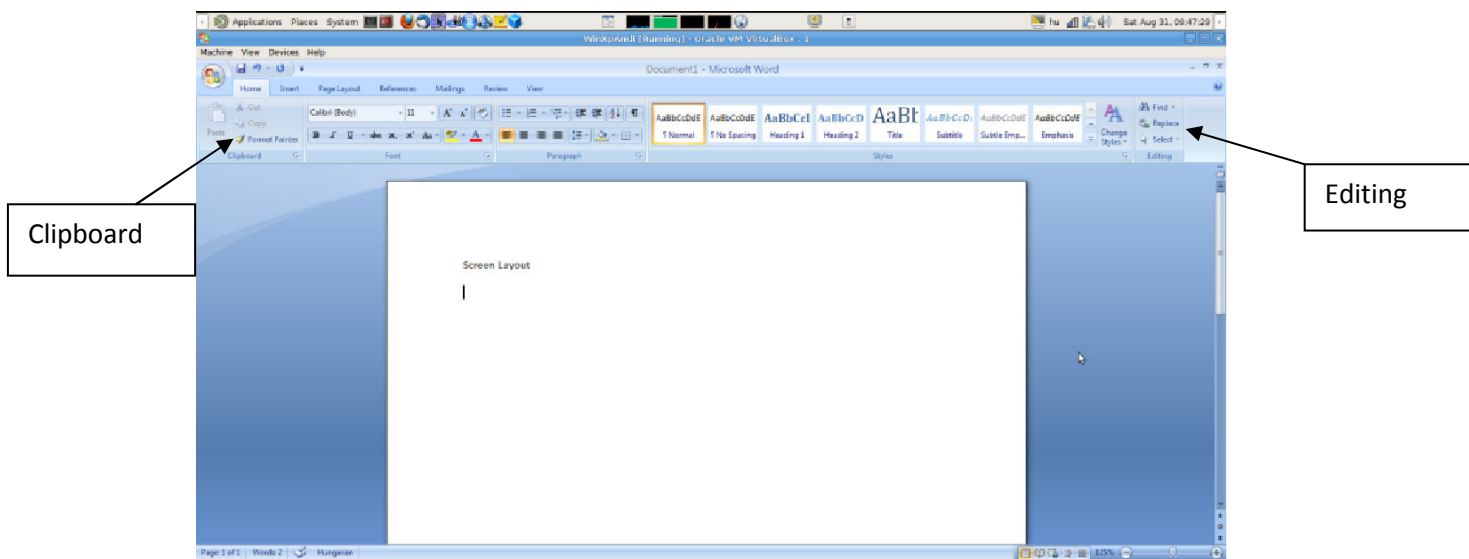
Several documents can be opened. All open documents will be listed in the **View Tab** of the Ribbon when you click on **Switch Windows**. The current document has a checkmark beside the file name. Select another open document to view it.

- **Print Layout:** This is a view of the document as it would appear when printed. It includes all tables, text, graphics, and images.
- **Full Screen Reading:** This is a full view length view of a document. Good for viewing two pages at a time.
- **Web Layout:** This is a view of the document as it would appear in a web browser.
- **Outline:** This is an outline form of the document in the form of bullets.
- **Draft:** This view does not display pictures or layouts, just text.
- To view a document in different forms, click the document views shortcuts at the bottom of the screen or:
 - Click the **View Tab** on the Ribbon
 - Click on the appropriate document view.

Close a Document

Microsoft Office Button / Close

Editing document



Inserting Additional Text:

- **Type Text:** Put your cursor where you want to add the text and begin typing
- **Copy and Paste Text:** Highlight the text you wish to copy and right click and click **Copy** (or **Ctrl+C**), put your cursor where you want the text in the document and right click and click **Paste** (or **Ctrl+V**).
- **Cut and Paste Text:** Highlight the text you wish to cut and right click and click **Cut** (or **Ctrl+X**), put your cursor where you want the text in the document and right click and click **Paste** (or **Ctrl+V**).

- **Drag Text:** Highlight the text you wish to move, click on it and drag it to the place where you want the text in the document.

You can also use the **Clipboard** group on the Ribbon (Home tag).

Search and Replace Text

To find a particular word or phrase in a document:

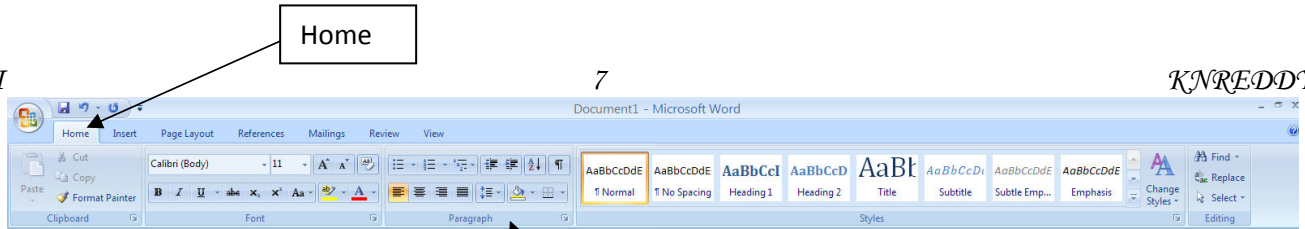
- Editing / Find

To find and replace a word or phrase in the document:

- Editing / Replace

Undo Changes

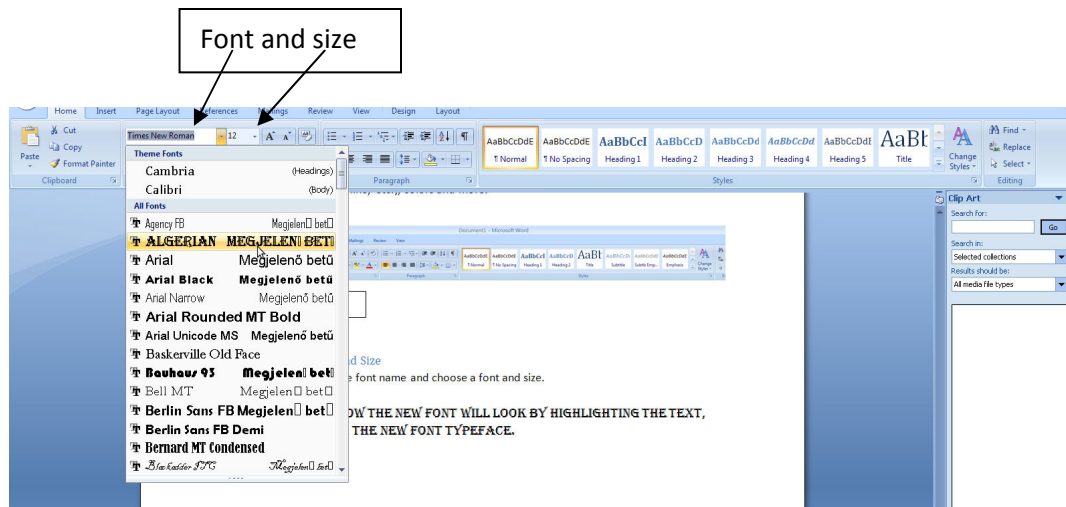
Click the **Undo Button** on the Quick Access Toolbar.



Font, Paragraph, Styles

Formatting text

On the Home Tab of the Ribbon, there are several areas controlling the style of the document: Font, Paragraph, and Styles. A style is a format enhancing tool that includes font typefaces, font size, effects (bold, italics, underline, etc.), colors and more.



Change Font Typeface and Size

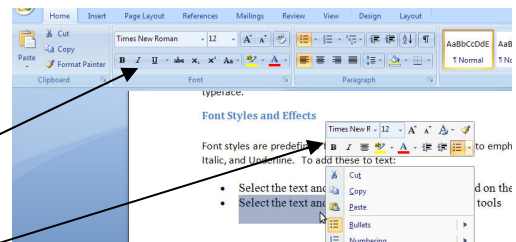
Click the **arrow** next to the font name and choose a font and size.

You can preview how the new font will look by highlighting the text, and hovering over the new font typeface.

Font Styles and Effects

Font styles are predefined formatting options that are used to emphasize text: Bold, Italic, and Underline.

- Select the text and click the **Font Styles** included on the Font Group of the Ribbon, or
- Select the text and right click to display the font tools



Change the spacing between characters

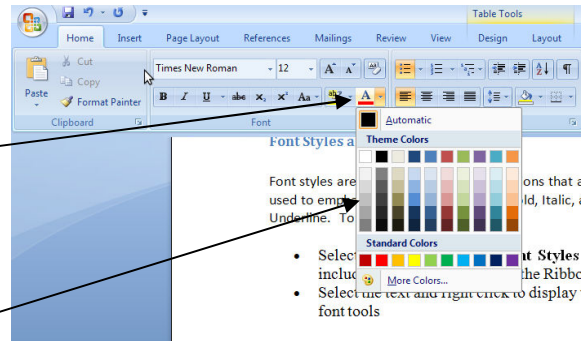
Selecting Expanded or Condensed alters the spacing between all selected letters by the same amount. Kerning alters the spacing between particular pairs of letters.

Expand or condense the space evenly between all the selected characters

- Select the text that you want to change.
- On the Home tab, click the Font Dialog Box Launcher, and then click the Character Spacing tab.
- In the Spacing box, click Expanded or Condensed, and then specify how much space you want in the By box.

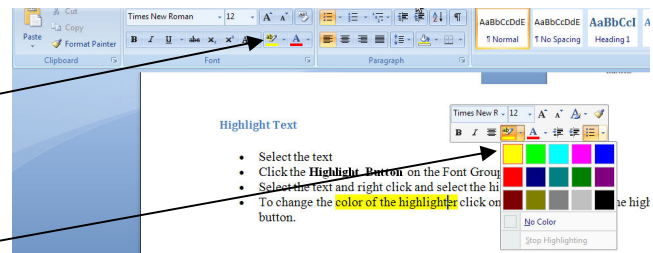
Change Text Color

- Select the text and click the **Colors** button included on the Font Group of the Ribbon,
- or
- Highlight the text and right click and choose the colors tool.
- Select the color by clicking the down arrow next to the font color button.



Highlight Text

- Select the text
- Click the **Highlight Button** on the Font Group of the Ribbon, or
- Select the text and right click and select the highlight tool
- To change the **color of the highlighter** click on down arrow next to the highlight button.



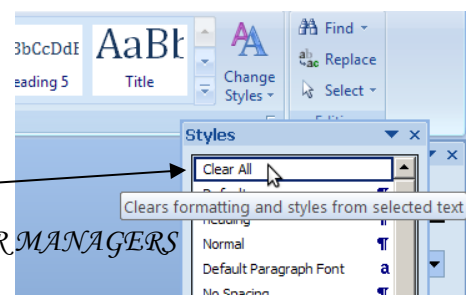
Copy Formatting

If you have already formatted text the way you want it and would like another portion of the document to have the same formatting, you can copy the formatting. To copy the formatting, do the following:

- Select the text with the formatting you want to copy.
- Copy the format of the text selected by clicking the **Format Painter** button on the **Clipboard** Group of the **Home** Tab
- Apply the copied format by selecting the text and clicking on it.

Clear Formatting

- Select the text you wish to clear the formatting.
- Click the **Styles** dialogue box on the Styles Group on the Home Tab.
- Click **Clear All**.



Make a Hyperlink

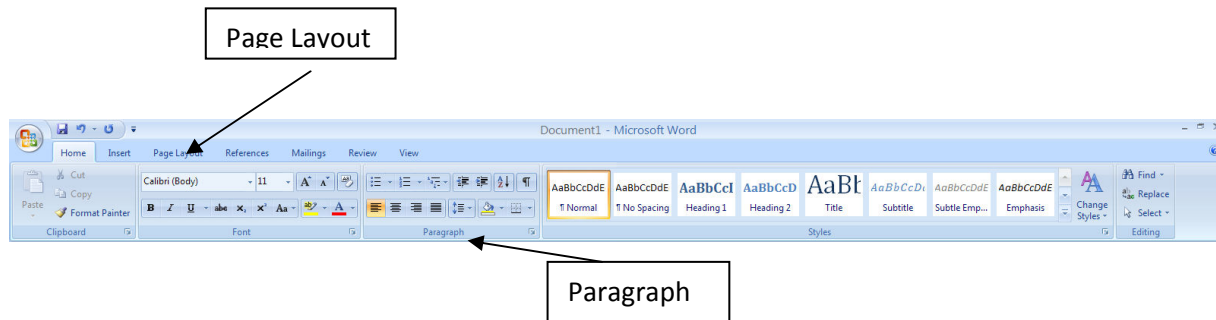
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- Select the text you wish to by a hyperlink. ⁹
- Click the **Insert** tab.
- Click on **Hyperlink** and OK.

Insert current Date and Time

- Click the **Insert** tab.
- Click on **Date & Time**.
- Select the appropriate language and format.

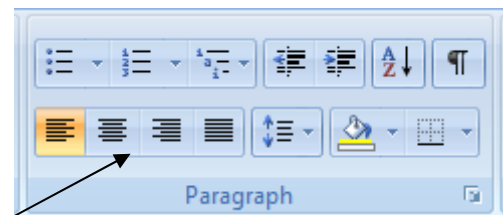


Formatting Paragraphs

Formatting paragraphs allows you to change the look of the overall document. You can access many of the tools of paragraph formatting by clicking the **Page Layout** Tab of the Ribbon or the **Paragraph** Group on the Home Tab of the Ribbon.

Change Paragraph Alignment

- Click the **Home Tab**
- Choose the appropriate button for alignment on the Paragraph Group.
 - **Align Left:** the text is aligned with your left margin
 - **Center:** The text is centered within your margins
 - **Align Right:** Aligns text with the right margin
 - **Justify:** Aligns text to both the left and right margins.



Indent Paragraphs

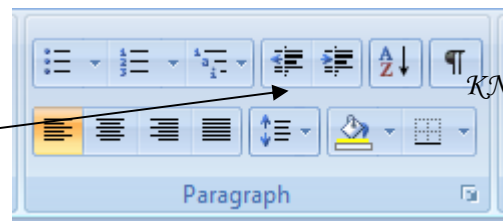
Indenting paragraphs allows you set text within a paragraph at different margins. There are several options for indenting:

- **First Line:** Controls the left boundary for the first line of a paragraph
- **Hanging:** Controls the left boundary of every line in a paragraph except the first one
- **Left:** Controls the left boundary for every line in a paragraph
- **Right:** Controls the right boundary for every line in a paragraph

To indent paragraphs, you can do the following:

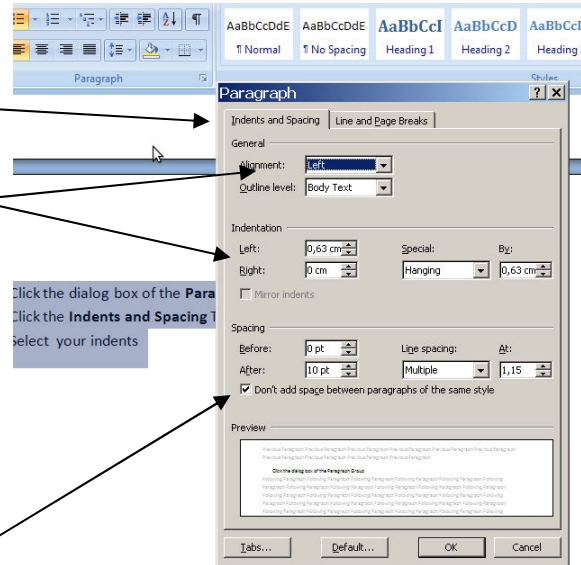
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- Click the **Indent** buttons to control the indent.
- Click the **Indent** button repeated times to increase the size of the indent.



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- Click the dialog box of the **Paragraph** Group
- Click the **Indents and Spacing** Tab
- Select your indents



Alignment also can be changed within this Tab.

Change Spacing Between Paragraphs and Lines

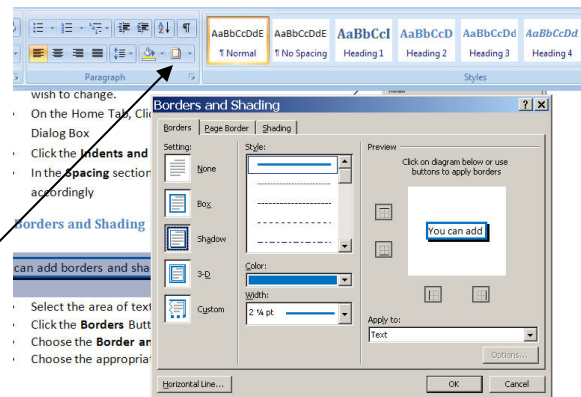
- Select the paragraph or paragraphs you wish to change.
- On the Home Tab, Click the **Paragraph** Dialog Box
- Click the **Indents and Spacing** Tab
- In the **Spacing** section, adjust your spacing accordingly

Add Borders and Shading

You can add borders and shading to paragraphs

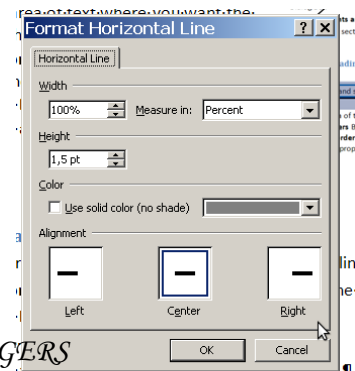
and entire pages.

- Select the area of text where you want the border or shading.
- Click the **Borders** Button on the Paragraph Group on the Home Tab
- Choose the **Border and Shading**
- Choose the appropriate options



Drawing horizontal line

- Put your cursor where you want to add the horizontal line.
- Click the **Borders** Button on the Paragraph Group on the Home Tab
- Choose the **Horizontal line**
- Click on the line
- Choose the appropriate options in the pop up window.



Styles

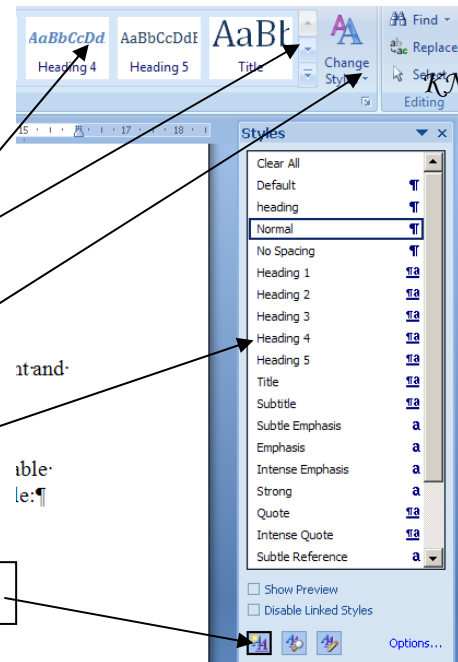
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The use of Styles in Word will allow you to quickly format a document with a consistent and professional look. Styles can be saved for use in many documents.

Apply Styles

There are many styles that are already in Word ready for you to use. To view the available styles click the **Styles** dialog box on the Styles Group in the Home Tab. To apply a style:

1. Select the text
2. Click the **Styles** Dialog Box, or **Styles Drop Down** menu
3. Click the **Style** you choose



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Creating New Styles

- Click the **Styles** Dialog Box
- Click the **New Style** Button
- Complete the New Style dialog box.

At the bottom of that dialog box, you can choose to add this to the Quick Style List or to make it available only in this document.

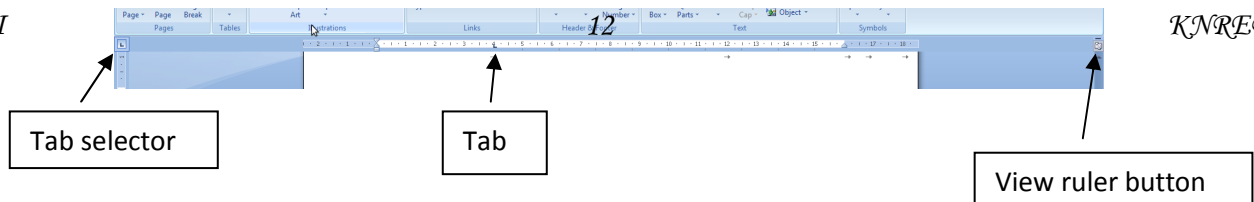
New Quick Style

- Insert your cursor anywhere in the text formatted as the chosen style
- Click the **Styles** dialog box
- Click on New style and click on Add to Quick Style list and OK.

Style Inspector

To determine the style of a particular section of a document:

- Insert cursor anywhere in the text that you want to explain the style
- Click the **Styles Drop Down** Menu
- Put the arrow on the bordered style. The formatting options will appear in a text box.



Set, edit, or clear tabs

Set the tab stops

With the ruler it is possible to set manual tab stops at the left side, middle, and right side of your document.

Note: If you don't see the horizontal ruler that runs along the top of the document, click the **View Ruler** button at the top of the vertical scroll bar.

It is easy to set tabs by clicking the **tab selector** at the left end of the ruler until it displays the type of tab that you want and then clicking the ruler at the location you want. Tab types:

- A **Left Tab** stop sets the start position of text that will then run to the right as you type.
- A **Center Tab** stop sets the position of the middle of the text. The text centers on this position as you type.
- A **Right Tab** stop sets the right end of the text. As you type, the text moves to the left.
- A **Decimal Tab** stop aligns numbers around a decimal point. Independent of the number of digits, the decimal point will be in the same position.
- A **Bar Tab** stop doesn't position text. It inserts a vertical bar at the tab position.

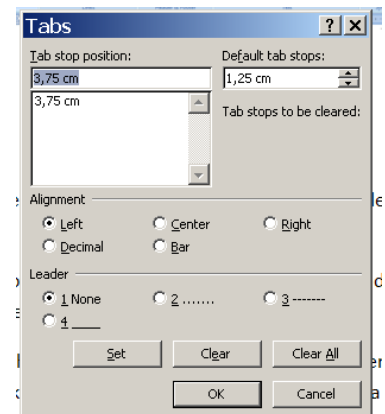
For more precise positions, use the **Tabs** dialog box: double-click any tab stop on the ruler, or:

- On the **Page Layout** tab, click the **Paragraph** Dialog Box Launcher.
- At the bottom of **Paragraph** dialog box, click **Tabs**.

Add leaders between tab stops

You can add dot leaders between tab stops or choose other formatting options in the **Tabs** dialog box.

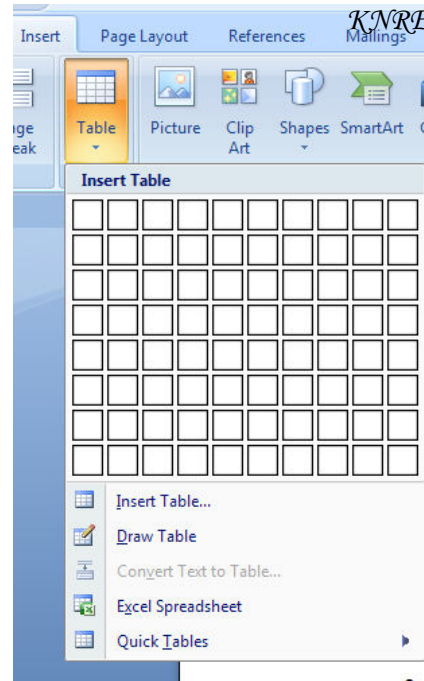
- Type the text that you want.
- On the horizontal ruler, set the tab stop that you want.
- On the **Page Layout** tab, click the **Paragraph** Dialog Box Launcher.
- In the **Paragraph** dialog box, click **Tabs**.
- Under **Leader**, click the leader option that you want.



When you press ENTER to start a new line, the formatted tab stop is available on the new line.

Create a Table:

- Place the cursor on the page where you want the new table
- Click the **Insert** Tab of the Ribbon
- Click the **Tables** Button on the Tables Group. You can create a table one of four ways:
 - Highlight the number of row and columns
 - Click **Insert Table** and enter the number of rows and columns
 - Click the **Draw Table**, create your table by clicking and entering the rows and columns
 - Click **Quick Tables** and choose a table

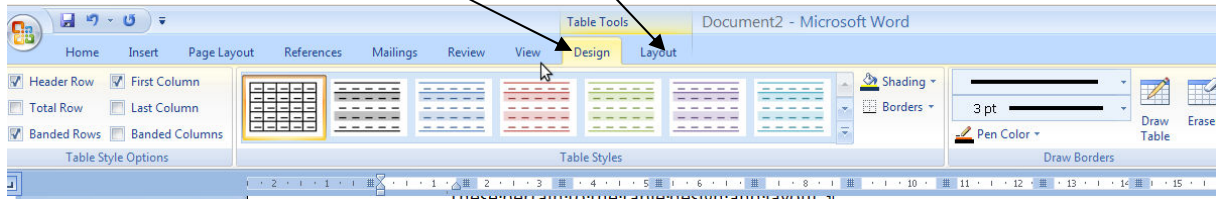


Enter Data in a Table:

- Place the cursor in the cell where you wish to enter the information. Begin typing.

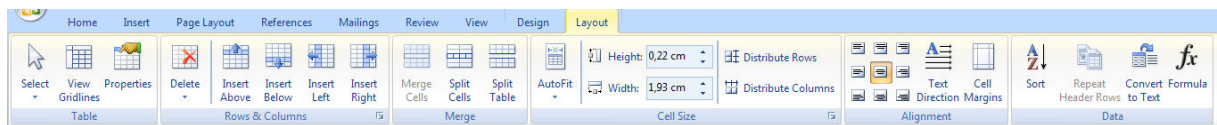
Modify the Table Structure and Format a Table

- Click the table and notice that you have two new tabs on the Ribbon: **Design** and **Layout**. These pertain to the table **design** and **layout**.



On the **Design** Tab, you can choose:

- **Table Style Options**
- Choose **Table Styles**
- **Shading and Borders**



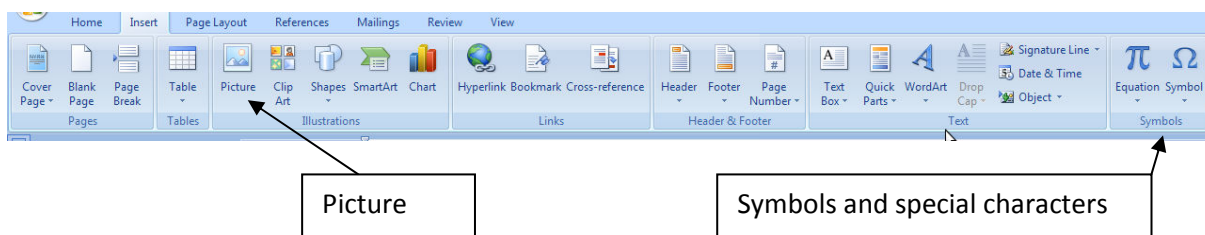
To format a table, click the table and then click the **Layout** Tab on the Ribbon. This Layout tab allows you to:

- **View Gridlines** and **Properties** (from the **Table** Group)
- **Insert Rows** and **Columns** (from the **Rows & Columns** Group)
- **Delete** the **Table**, **Rows** and/or **Columns** (from the **Rows & Columns** Group)
- **Merge** or **Split Cells** (from the **Merge** Group)
- Increase and Decrease cell **Height** and **Width** size (**Cell Size** Group)
- Align text within the cells and change text directions (**Alignment** Group)

Graphics

UNIT-III You can insert special characters, symbols, pictures, illustrations, and watermarks.

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Symbols and Special Characters: punctuation, spacing, or typographical

- Place your cursor in the document where you want the symbol
- Click the **Insert** Tab on the Ribbon
- Click the **Symbol** button on the Symbols Group
- Choose the appropriate symbol.

Illustrations, Pictures, and SmartArt

To insert **illustrations**:

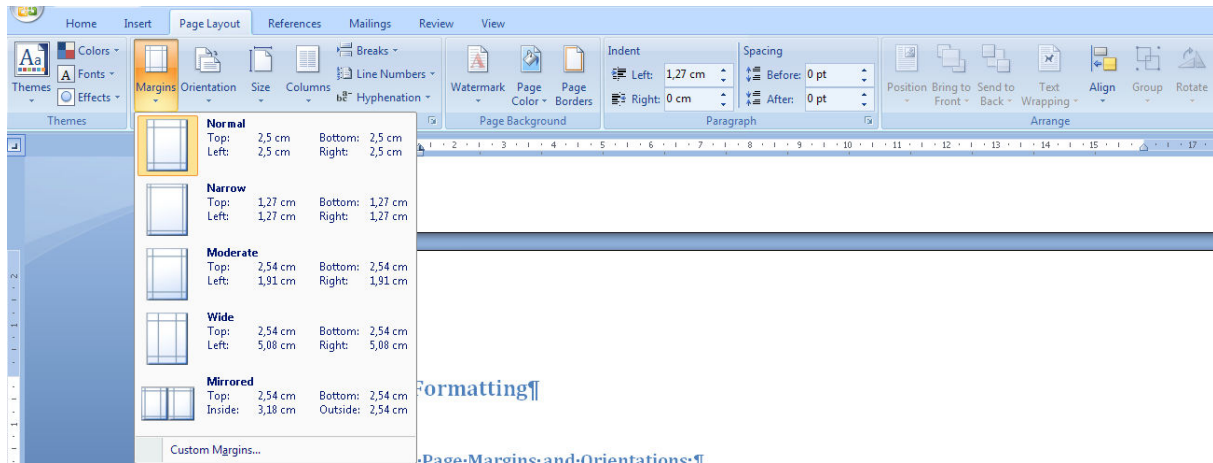
- Place your cursor in the document where you want the illustration/picture
- Click the **Insert** Tab on the Ribbon
- Click the **Clip Art/ Picture /Smart Art** Button
- The dialog box will open on the screen and you can search for clip art / picture / smart art.
- Choose the illustration you wish to include

To insert a **picture**:

- Place your cursor in the document where you want the illustration/picture
- Click the **Insert** Tab on the Ribbon
- Click the **Picture** Button
- Browse to the picture you wish to include
- Click the **Picture**
- Click **Insert**

Resize Graphics

All graphics can be resized by clicking the image and clicking one corner of the image and dragging the cursor to the size you want the picture.



Modify Page Margins:

- Click the **Page Layout** Tab on the Ribbon
- On the **Page Setup** Group, Click **Margins**
- Click a **Default Margin**, or
- Click **Custom Margins** and complete the dialog box.

Orientation, Size of the Page, or Columns:

- Click the **Page Layout** Tab on the Ribbon
- On the Page Setup Group, Click the **Orientation**, **Size**, or **Columns** drop down menus
- Click the appropriate choice

Page Border and Color

- Click the **Page Layout** Tab on the Ribbon
- On the Page Background Group, click the **Page Colors** or **Page Borders** drop down menus

Insert Common Header and Footer Information

To insert Header and Footer information such as page numbers, date, or title, first, decide if you want the information in the header (at the top of the page) or in the Footer (at the bottom of the page), then:

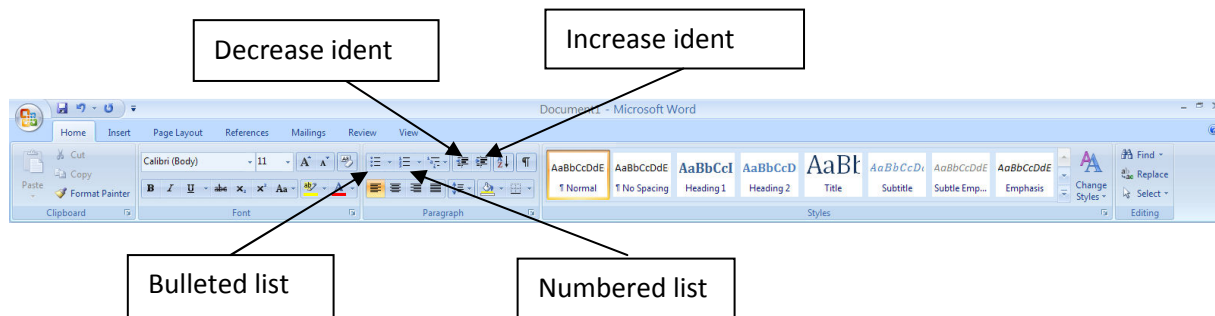
- Click the **Insert** Tab on the Ribbon
- Click **Header or Footer**
- Choose a style

Footnotes are sometimes necessary for providing additional information in your document. They normally use a superscript number as a marker, making it easy for the reader to simply look down from the text to the notes at the bottom to gather further information. Word automatically keeps track of the numbering and placement of the footnotes for you, making this a painless task to perform when writing that thesis, book, or scientific paper. To insert footnotes into your Word document, do the following...

- Click the place in your document that you wish to place the insertion point for the reference mark to the footnote.
- In the **Ribbon**, click the **References** tab.
- In the **Footnotes** section, click **Insert Footnote**. Word will insert the reference mark at the point you selected and then take you to the bottom of the page.
- Type your footnote.
- When you are done, right-click the footnote and select **Go to Footnote** to take you back to the insertion point in the main body so you can continue working on your document.

Bulleted and Numbered Lists

Lists allow you to format and organize text with numbers, bullets, or in an outline. Bulleted lists have bullet points, numbered lists have numbers, and outline lists combine numbers and letters depending on the organization of the list.



To create a list from an existing text:

- Select the text you wish to make a list
- From the Paragraph Group on the Home Tab, Click the **Bulleted or Numbered Lists** button

New list

- Place your cursor where you want the list in the document
- Click the **Bulleted or Numbered Lists** button
- Begin typing

Nested Lists

A nested list is list with several levels of indented text. To create a nested list:

- Create your list following the directions above
- Click the **Increase or Decrease Indent** button

Formatting Lists

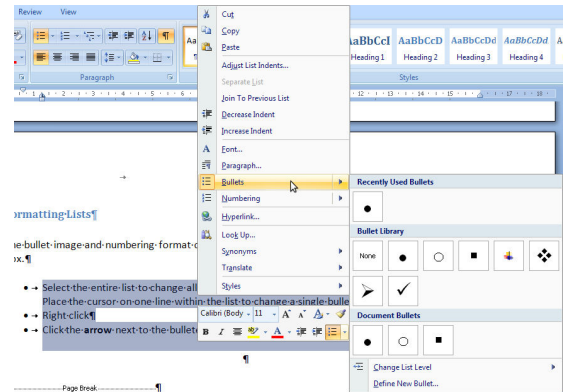
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The bullet image and numbering format can be changed by using the **Bullets or Numbering** dialog box.

- Select the entire list to change all the bullets or numbers, or
Place the cursor on one line within the list to change a single bullet
- Right click
- Click the **arrow** next to the bulleted or numbered list and choose a bullet or numbering style.



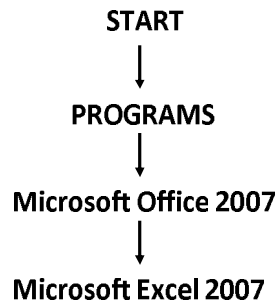


Microsoft Excel 2007 Tutorial

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Open Microsoft Excel 2007

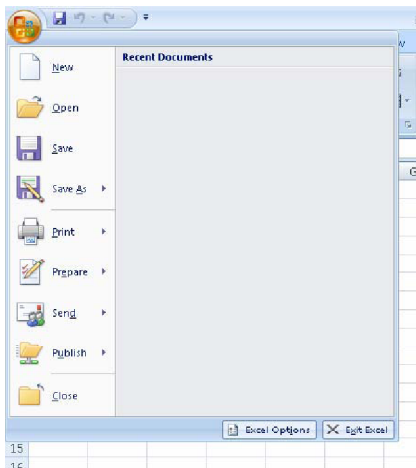


Double click on the ICON on desktop



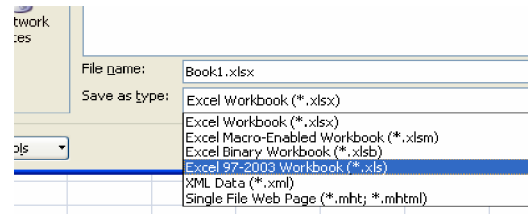
Saving your Workbook

- To save your document, simply click on the MS 2007 logo in the top left-hand corner [] and the menu bar that you see on your right here will drop down giving you various options, including saving.




Saving your Workbook *cont'd*

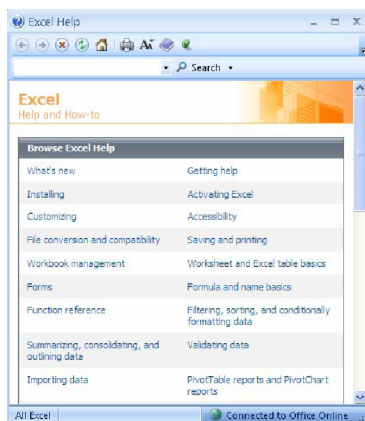
- When you save a workbook in MS Excel 2007, it automatically saves with ".xlsx" as its extension.
- However, you can also save your workbook so that it's readable by earlier versions of MS Excel (97 – 2003) by simply selecting "Excel 97-2003 workbook (*.xls)" when choosing what file type to save as (please see the screenshot below)



Getting Help in MS Excel 2007

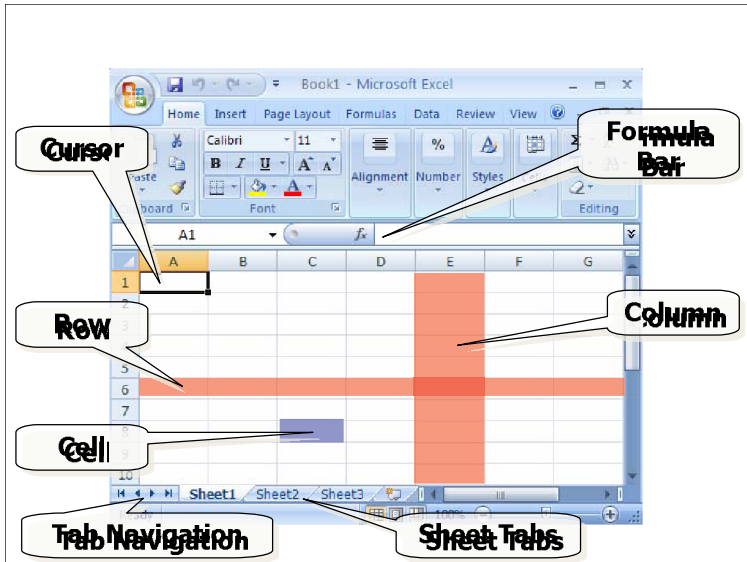


- To get help in Excel 2007, look for the help icon [] in the top right-hand corner of the screen and click on it.
- You will be presented with a window that looks like the one here on the right.



Some Terminology

- Workbook** – An Excel file containing several worksheets
- Worksheet** – Rectangular grid of rows & columns that labels and values are inserted into
- Cell** - The intersection of a row and column, identified by an address (ex. A1, F4, Z55)
- Value** – Numerical data in a cell
- Label** – Non-numerical data in a cell
- Table** – A logically distinct group of cells, visually distinguished with borders and shading



Cell Referencing

A screenshot of the Microsoft Excel interface illustrating cell addressing. Callouts point to the active cell (A1) with the text 'Address of the cell containing the cursor', the cell 'F1', and the cell 'C6'. Below the screenshot, there is a bullet point: 'Column(Letter) then Row(Number) Kinda' Like Battleship (the board game)'. To the right of the text is a small image of a Battleship board game box.

Navigation Shortcuts

In addition to the intuitive mouse and arrow-key movement between cells, these shortcuts can make lots of data easier to input:

- **Home:** Move to beginning of row
- **Ctrl+Home:** Move to "A1"
- **Enter:** Move one cell down
- **TAB:** Move one cell to the right
- **Shift+TAB:** Move one cell to the left
- **End+→:** Move to last used cell in row
- **End+↓:** Move to last used cell in column
- **F2:** Edit the the content of a cell

Renaming Worksheets

- **Right-click** on the tab for the sheet you need to rename and choose **rename**
- Notice the other options that are available
 - We can also insert, delete, copy, and select all sheets
- Rename the sheet to "My First Spreadsheet"

A screenshot of the right-click context menu for a worksheet tab. The 'Rename' option is highlighted with a yellow background and a red arrow points to it from the text 'choose rename' in the list above. Other options visible include Insert..., Delete, Move or Copy..., View Code, Protect Sheet..., Tab Color, Hide, Unhide..., and Select All Sheets.

Entering Data

- To enter simple data into a cell we can either:
 - Position the cursor on the cell and then type on the keyboard and press Enter
- **OR**
- Position the cursor on a cell and then click on the formula bar, type the data, press Enter or click on the checkmark to accept or on the X to cancel.

Inserting New Rows and Columns

- Click on the row or column header
- Right click and choose insert
- Rows are inserted **above** the selected row
- Columns are inserted to the **left** of the selected column
 - Note: Affected merged cells will automatically grow

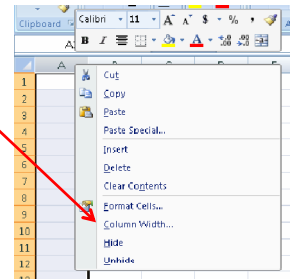
Deleting Rows and Columns

An Example...

- Type a number into any cell in row “8”
- **Right-click** on a row header “8” & select **Delete**
- Type a number into any cell in column “B”
- **Right-click** on the column letter “B”, & select **Delete**
 - The row/column is removed, along with any formulas, data and formatting.
 - The adjacent cells are shifted up/left and the row or column is re-labeled to reflect the new change

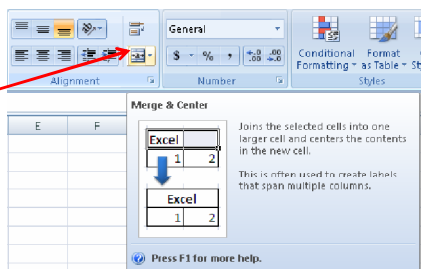
Column Width

- Make the first column, A, wide enough to accommodate the width of the text labels.
- Right-click on the column letter **A** and you’ll be given the following options:
- Select “Column Width”
 - *Shortcut, you can also click on the line the column letters and drag cursor left or right.*

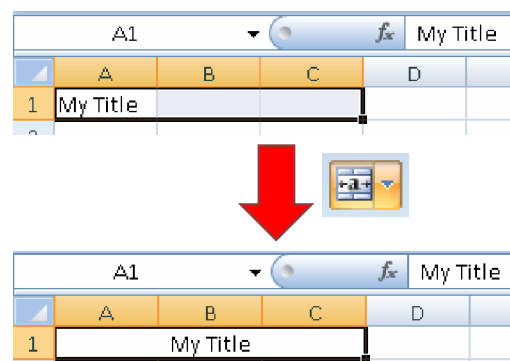


Merging Cells

- Merging allows one cell to take up multiple rows and/or columns
- To merge 2 or more cells, highlight the desired cells to merge and click on the merge & center button:



Merging Cells *cont'd*



Currency Style

- We can change the format of numerical data to appear as currency.
- Highlight some **columns** which contain numbers
- Click the **Currency button \$** on the Home tab
 - ✓ **Note:** there are also buttons for Percentage Style **%**, and Comma Style **,**
- Click on the Decrease Decimal button **.00** twice to remove decimal places

\$ 1.00	\$ 1
\$ 2.00	\$ 2
\$ 3.00	\$ 3
\$ 4.00	\$ 4
\$ 5.00	\$ 5

A Quick Note About Percent Style

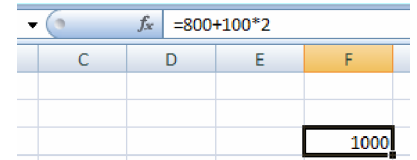
- | | |
|--------------|-----------------------------|
| 0.01 = 1% | $\frac{1}{4} = 0.25 = 25\%$ |
| 0.1 = 10% | $\frac{1}{2} = 0.50 = 50\%$ |
| 1 = 100% | $\frac{3}{4} = 0.75 = 75\%$ |
| 10 = 1000% | |
| 100 = 10000% | etc... |

Using Formulas

- A formula is a special entry in a cell, that calculates its value based on other cells, and/or constants
- By beginning an entry into a cell with an “=” we let Excel know we’re using a formula
- Without the equal sign “=” Microsoft Excel assumes you’ve entered a label or value

A Simple Formula

- Select any cell on your spreadsheet and type:
=800+100*2
- Press <Enter>
- Excel recognizes the ‘=’ sign and calculates the result
- Note that the formula is shown in the formula bar (while that cell is selected) and that the computed value is displayed in the cell
- Also note that Excel respects the order of operations (BEDMAS)



Linking Cells

- You can refer to cells in a formula by simply using the cell’s reference name.
- Enter some data or a label into cell A1
- Select cell A2 and type: **=A1**
- Now, when the information in A1 is changed, those changes will automatically show up in cell A2
- You can even link cells from different worksheets!
- For example, in **Sheet2** select cell A1 and type:

=My First Spreadsheet!A1

=sheet name!cell address
 *Note the Exclamation Mark!!!

Using Cell References In Formulas

- In Cell A2 type: **=A1*2**
- Now, change the value in A1
- Excel will automatically update the value shown in cell A2
- So, this is just like a link
 → the value in A1 is substituted in before Excel performs the calculations in cell A2
- This works with cells linked in between different worksheets too! 😊

Built-In Functions

- Excel comes with hundreds of built-in functions which can be used in your formulas.
- However, the majority of functions need data in order to be useful
 - For example, in order to use the Sum function, you need to tell Excel which values to sum up.
- These built-in functions can operate by themselves, on a single value, or on multiple values depending on what kind of operation is being performed
 - For example, the Pi function simply returns the value of Pi, the Square Root function needs only one number to work while the Z-Test function (from stats) requires three different numbers in order to work.

Built-In Functions *cont'd*

- Built-In Functions are **structured** like this:
FunctionName (Parameter1,...)
- The FunctionName always comes first and usually describes what the function does.
- The Parameter is the information that the function needs in order to work
- This can be a single value or a set of values and can be represented by either numbers (ex. 1, 2, 3, 5, 8, 13, etc...), cell references (ex. A1, B2, C3:D4, etc...) or text.
- The Parameter(s) always comes second and are always contained within parentheses “ () ”.

Built-In Functions *cont'd*

- SUM() Adds all numbers in a range of cells
- PRODUCT() Multiplies all the numbers in a range of cells
- COUNT() Counts all the cells that contain numbers in a range of cells
- AVERAGE() Calculates the average in a range of cells
- MEDIAN() Calculates the median in a range of cells
- MODE() Calculates the mode in a range of cells
- POWER() Calculates a number raised to a power
- SQRT() Calculates the square root of a number
- MAX() Returns the largest number in a range of cells
- MIN() Returns the smallest number in a range of cells

Built-In Functions *cont'd*

- IF() Checks whether a condition is met, and returns one value if true, and a different value if false
- COUNTIF() Count the number of cells within a given range that meet the given condition
- PI() Returns the value of Pi, accurate to 15 digits
- MOD() Returns the remainder when a number is divided by a divisor
- LEN() Returns the number of characters in some text
- ROMAN() Converts an Arabic numeral to Roman, as text
- CONCATENATE() Joins several pieces of text to each other
- TODAY() Returns the current date
- NOW() Returns the current date and time

Built-In Functions *cont'd*

- There are two different ways to use functions:
1. The first way is to simply write them out
 - ✓ This will save you time if you know what functions you'll be using and how to use them
 2. The second way is to use the wizard
 - ✓ This is a great way to learn about the many different kinds of functions and operations that excel can perform **and how to use them.**

Built-In Functions *cont'd*

- =SUM(A1,A5,A10,A15,A20)
- This formula uses **commas** and will sum up the values for the five cells A1, A5, A10, A15, A20
- =SUM(A1:A20)
- This formula uses a **colon** and will sum up the values for the range of cells A1 to A20.

Make sure you understand the difference between these two examples!

Built-In Functions *cont'd*

- Let's do an example!
- Type numbers into the first 5 rows of column A
- In cell A6 type: =SUM(A1:A5)
- A6 now contains the sum of A1 to A5
- To find the average you would use:
 - =AVERAGE(A1:A5)
- How could you find the difference between the biggest number and the smallest number in a range of cells?
 - =MAX(A1:A5) – MIN(A1:A5)

	A	B
1	11	
2	345	
3	86	
4	7	
5	129	
6	=SUM(A1:A5)	
7		

Built-In Functions *cont'd*

- Some functions in Excel accept a condition as a parameter.
- This is the range of cells to search ← ← this is the condition
- =countif(A1:A100, ">75")**
- This function will tell us how many cells in the range of A1 to A100 contain a value that is greater than 75.
 - We could have also used <, =, <=, >= in our condition
- This is the condition If TRUE, return this value If FALSE, return this value
- =if(A2 > A3, "A2 is bigger", "A3 is bigger")**

Built-In Functions *cont'd*

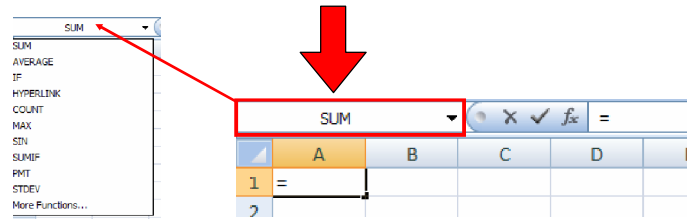
Getting Fancy

=if(countif(A1:A20, ">75") > 10, "More than half over 75", "At least half under 75")

- So, what does this thing do?
- Notice how there are 2 different built-in functions.
- The best way to work through this is to start with the inside built-in function, in this case, countif(), and work our way out.
- The inside function will count the number of cells from A1 to A20 that contain values greater than 75.
- The outside function will check to see if that "counted" number of cells is greater than 10, and if it is, then it'll return "More than half over 75", otherwise, it'll return "At least half under 75"

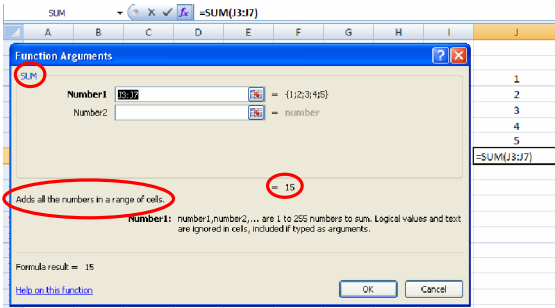
Using the Wizard for Built-In Functions

- Select any cell on the spreadsheet
- Click the "=" or the "fx" button on the **Formula bar**
- The drop-down-box to the left of the "=" can be used to select a function.

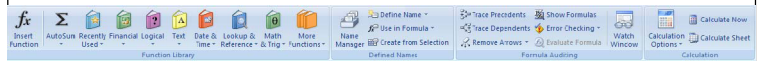


Using the Wizard for Built-In Functions *cont'd*

- A help wizard will then guide you through the entry of your formula



The Formulas Tab



- New to MS Excel 2007 is a tab with many of Excel's built in functions / formulas neatly organized into different categories
- While some people may prefer to simply type in their desired formula, others may want to explore what Excel has to offer by searching through and experimenting with the options presented in this tab.

Advanced Cell Referencing

- When we copy/cut & paste a formula Excel transforms it, treating all references as **Relative**.
- For example, type random numbers into the first 5 rows of column A again, and enter the formula: =A1*2 into cell B1

	A	B	C	D
1	8	16		
2	609			
3	71			
4	25			
5	430			
6				

Advanced Cell Referencing *cont'd*

- Now, copy and paste the formula into cells B2, B3, B4, & B5
- Notice how the formula has changed...
- ...we moved down 3 rows and so too has the cell reference (it changed from A1 to A4)

	A	B	C	D
1	8	16		
2	609	1218		
3	71	142		
4	25	50		
5	430	860		
6				

Advanced Cell Referencing *cont'd*

- We can also tell Excel not to transform a reference (making it an **Absolute Reference**)
- Let's do another example
 - In **A1** write: "Tax Rate"
 - And in **B1**, write: "1.15"
- Next, create a list of items (*ex. things that you'd like to sell*) in column A and list their prices in their adjacent cells in column B

Advanced Cell Referencing *cont'd*

- To get the price of the mattress **After Tax**, we use the formula:

$$= \$B\$1 * B4$$

Absolute Reference (1.15) * Relative Reference (\$50.00) = \$57.50

Item	Price	After Tax
Mattress	\$ 50.00	\$ 57.50
Kettle	\$ 10.00	
Desk	\$ 65.00	
Lamp	\$ 5.00	
Couch	\$ 35.00	

Advanced Cell Referencing *cont'd*

Item	Price	After Tax
Mattress	\$ 50.00	\$ 57.50
Kettle	\$ 10.00	\$ 11.50
Desk	\$ 65.00	\$ 74.75
Lamp	\$ 5.00	\$ 5.75
Couch	\$ 35.00	\$ 40.25

- Now, copy and paste the formula into the remaining cells

Advanced Cell Referencing *cont'd*

- We do this because we want the formula (or rather Excel) to "remember" the location of the tax rate. That way the tax rate is applied to the prices of all the items.
- If we didn't add the absolute reference (\$B\$1), and instead used the relative reference (B1), then we would have ended up with the formulas: C5=B2*B5, C6=B3*B6, C7=B4*B7, C8=B5*B8 and that would produced the following:

Item	Price	After Tax
Mattress	\$ 50.00	\$ 57.50
Kettle	\$ 10.00	\$ -
Desk	\$ 65.00	#VALUE!
Lamp	\$ 5.00	\$ 250.00
Couch	\$ 35.00	\$ 350.00

obviously wrong! ☹️

Referencing Review

- Cells are identified by their: **Column** (a letter) & **Row** (a number)
 - Ex. **A1, F3**
- Ranges of cells can be referenced using a colon ":"
 - Ex. A1:B10
- References to other worksheets take the form: **=sheet name!cell name**
 - For example, 'My First Spreadsheet'!A1:B10

Relative Referencing Review

- Most references are **relative**.
- For example, when the formula A2*B2 is copied & pasted into cells C3, C4, C5, and C6, Excel automatically assumes that you wish to apply the formula to row 3 by using A3 & B3 instead of A2 & B2

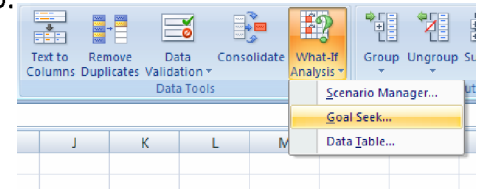
Price	Number	Total
1	7	7
2	3	6
3	8	24
4	4	16
5	2	10

Absolute Referencing Review

- When you don't want a part of your formula transformed you can protect it by adding: '\$'
- Columns and rows can be isolated separately or together, for example:
 - \$A1 – the column part (A) is locked
 - A\$1 – the row part (1) is locked
 - \$A\$1 – both the row and column are locked

Goal Seek

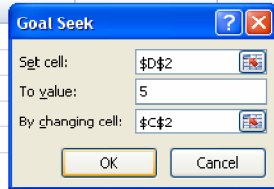
- Goal seek is a "what-if" analysis tool
- Essentially, goal seek changes the value of one cell used in a formula by changing the value of another cell in the formula.
- Goal seek can be found under "What-If Analysis" in the **Data** tab.



Goal Seek (cont'd)

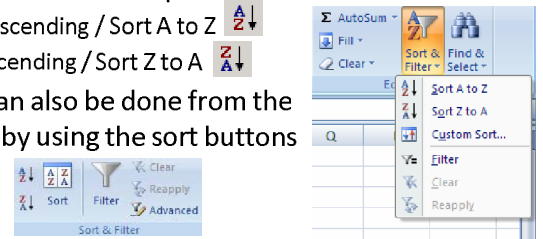
- With this example I am trying to determine how many apples \$5 will buy me.

	A	B	C	D
1	Item	Price	Number	Total
2	Apple	\$ 0.50	2	1
3	Orange	\$ 0.75	3	2.25
4				
5				
6				
7				



Sorting

- Sorting can be done from the **Home** tab by clicking on the "Sort & Filter" option. Choose from...
 - Sort Descending / Sort A to Z
 - Sort Ascending / Sort Z to A
- Sorting can also be done from the **Data** tab by using the sort buttons
- To Sort, just highlight the specific cells that you'd like sorted and then choose to have them sorted in Ascending (Z to A) or Descending (A to Z) order.

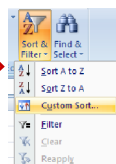


Sorting cont'd

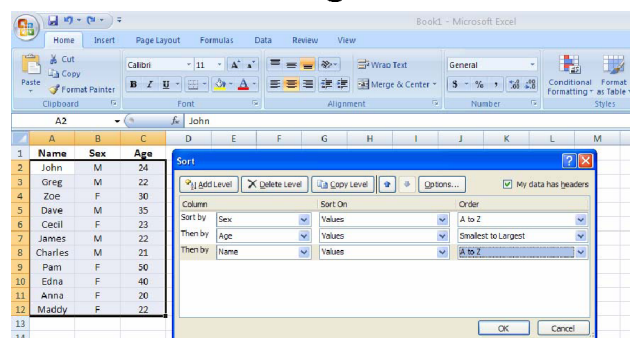
- Let's do an example!
- Let's sort this table according to Sex, then according to Age, and lastly according to Name.

	A	B	C	D
1	Name	Sex	Age	
2	John	M	24	
3	Greg	M	22	
4	Zoe	F	30	
5	Dave	M	35	
6	Cecil	F	23	
7	James	M	22	
8	Charles	M	21	
9	Pam	F	50	
10	Edna	F	40	
11	Anna	F	20	
12	Maddy	F	22	
13				

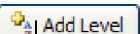
- Select the entire table and...
- Home tab → "Sort & Filter" → Custom Sort
- Data tab → "Sort & Filter" → Sort



Sorting cont'd



Note! Use the "Add Level" Button to add more sorting levels



Sorting *cont'd*

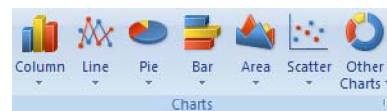
- As can clearly be seen here, this table has now been sorted on three different levels



	A	B	C
1	Name	Sex	Age
2	Anna	F	20
3	Maddy	F	22
4	Cecil	F	23
5	Zoe	F	30
6	Edna	F	40
7	Pam	F	50
8	Charles	M	21
9	Greg	M	22
10	James	M	22
11	John	M	24
12	Dave	M	35

Using Charts

- Excel offers a variety of chart types.
- Column, Bar, Line, Pie, and Scatter being the most common choices.
- But before we can make a chart, we'll need data.



- Column
- Line
- Pie
- Bar
- Area
- X Y (Scatter)
- Stock
- Surface
- Doughnut
- Bubble
- Radar

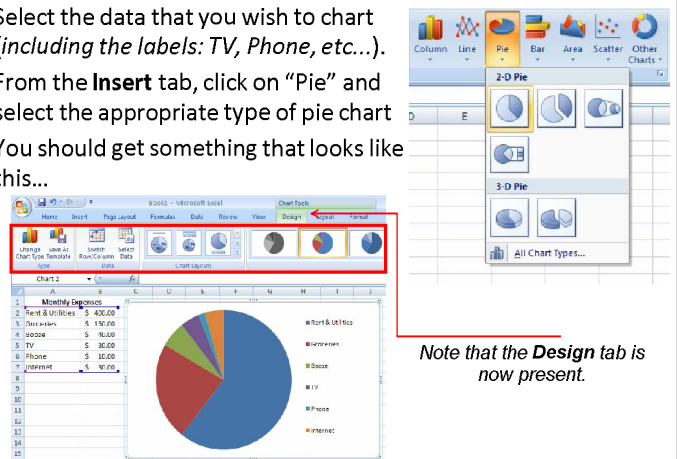
Making A Pie Chart

- For an example we'll need some actual data to chart so generate a list of monthly expenses such as this one.

	A	B
1	Monthly Expenses	
2	Rent & Utilities	\$ 400.00
3	Groceries	\$ 150.00
4	Booze	\$ 40.00
5	TV	\$ 30.00
6	Phone	\$ 10.00
7	Internet	\$ 30.00

Making A Pie Chart *cont'd*

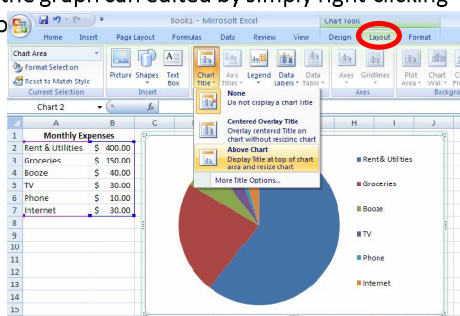
- Select the data that you wish to chart (including the labels: TV, Phone, etc...).
- From the **Insert** tab, click on "Pie" and select the appropriate type of pie chart
- You should get something that looks like this...



Note that the **Design** tab is now present.

Making A Pie Chart *cont'd*

- To add a chart title, select the **Layout** tab and click on "Chart Title"
- Almost everything in the graph can be edited by simply right-clicking on the desired component and choosing the appropriate option.
- For this example we'll choose the "Above Chart" option.



Making An XY Scatter Plot

	A	B
1	X	Y
2	1	1
3	2	4
4	3	9
5	4	16
6	5	25
7	6	36
8	7	49
9	8	64
10	9	81
11	10	100
12	11	121
13	12	144

=A2*A2

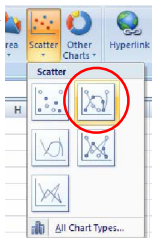
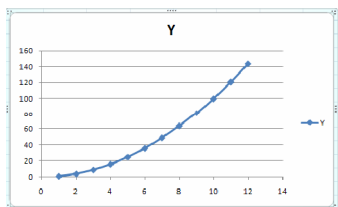
Create a table in which the values of the 'Y' column are equal to the square of the values in the adjacent 'X' column

This is called an "Exponential Series"

Making An XY Scatter Plot *cont'd*

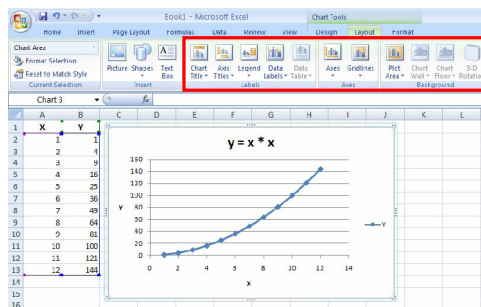
- Select the XY data we entered
- From the **Insert** tab, click on “Scatter” and select the appropriate type of pie chart, in this case, the “**Scatter with smooth lines and markers**” chart sub-type
- You should get something like this...

	A	B
1	X	Y
2	1	1
3	2	4
4	3	9
5	4	16
6	5	25
7	6	36
8	7	49
9	8	64
10	9	81
11	10	100
12	11	121
13	12	144



Making An XY Scatter Plot *cont'd*

- **Recall:** To edit the graph, use the options found under the **Layout** tab. From there you can add/edit the chart title, axis titles, legend, etc..



Reminder: Formatting a Chart

- Everything seen on the chart can be selected, formatted, moved, etc.
- For instance, to change stuff **Right Click on:**
 - The X-Axis, Y-Axis, Plot Area, Chart Area, Gridlines, Data Series, Legend, or Chart Title and select appropriate option that you'd like to edit
 - You'll be able to play around with the colours, **fonts**, scale, alignment, numbering, etc... so explore and find out what's possible!



Line Graphs vs. Scatter Plots



- So what is the difference anyways?
- A Line Graph is almost like a bar graph, except that instead of using bars, it uses points with a line connecting each of the adjacent points together
- An XY Scatter Plot is the familiar type of graph we all do in math where you have an x-axis and a y-axis that are used to represent coordinates.
- As well, on a Line Graph, you can use labels on the x-axis (ex. Toronto, Ottawa, Montreal, etc...) while on a XY Scatter Plot, you can only use numbers (ex. 0, 1, 5.5, 1/2, -0.23, etc..)

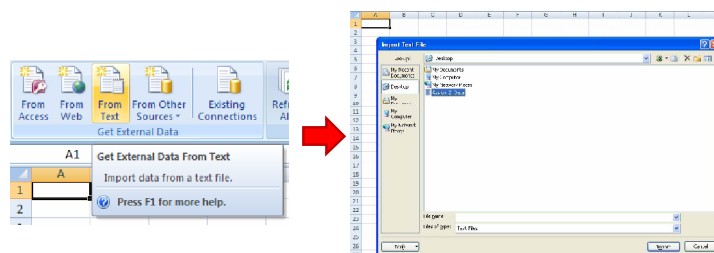
Linking an Excel Chart into Word

- Highlight a chart in Microsoft Excel
- Copy it
- Open a Microsoft Word document
- Paste it
 - Note, if the chart in Excel changes, the chart in Word **WILL** change as well



Importing Data From A Text File

- To import a data from a text file, go to the **Data** tab and look for the “Get External Data” section
- Select the “From Text” option
- Highlight the file and click “Import”



Importing Data From A Text File *cont'd*

- The Text Import Wizard should open up
- Usually you will want to choose “delimited”, as most files come with some sort of separator between the fields
- Next, select the proper type of delimiter
 - For Assignment #2, you will be using a comma delimited file.
- Now, select “general” as the Data Column Format
- Click on Finish

Final Notes

- Practise, Practise, Practise!!!
- If you have any problems post in the forum

Microsoft PowerPoint 2007 (PDF Tutorial)

Created by

Dawn Rauscher

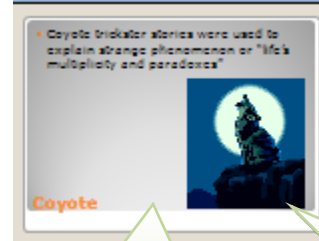
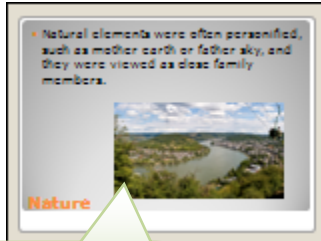
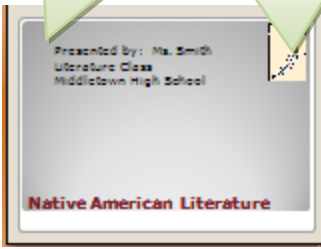
Note on Version: This tutorial was created with Microsoft PowerPoint 2007 which could make some screens different from other versions of Microsoft PowerPoint.

2.0 Slide Design

4.0 Edit Slide Master

6.0 New Slide
30

8.0 Slide Transitions



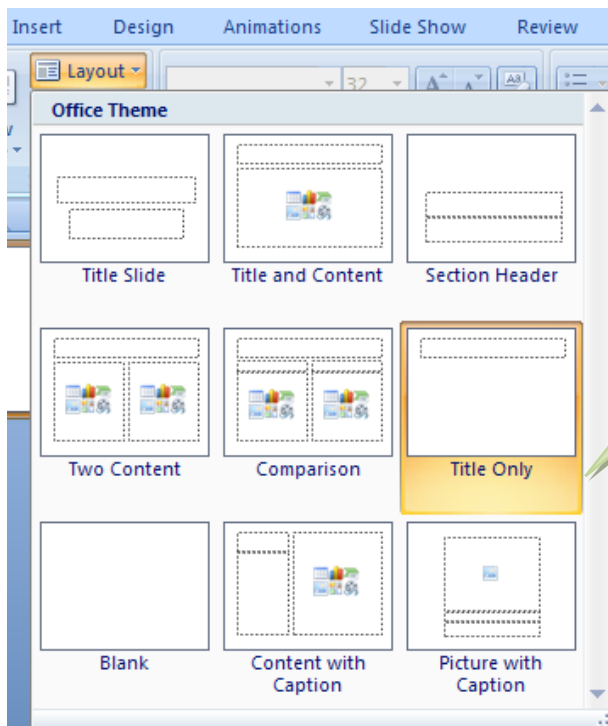
6.0 Insert Image

5.0 Insert Text

9.0 Animations

Follow the steps below to create the presentation shown above.

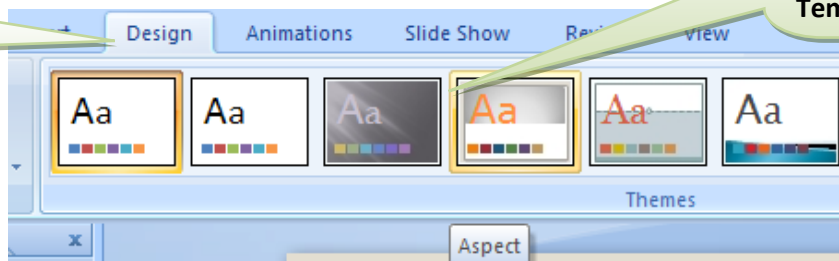
1. Open Microsoft PowerPoint
2. Format the slide



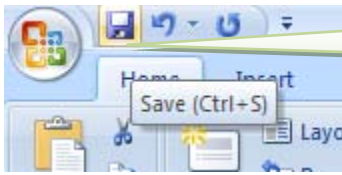
2.1 Click
Layout > Title

2.2 Click
The Design Tab

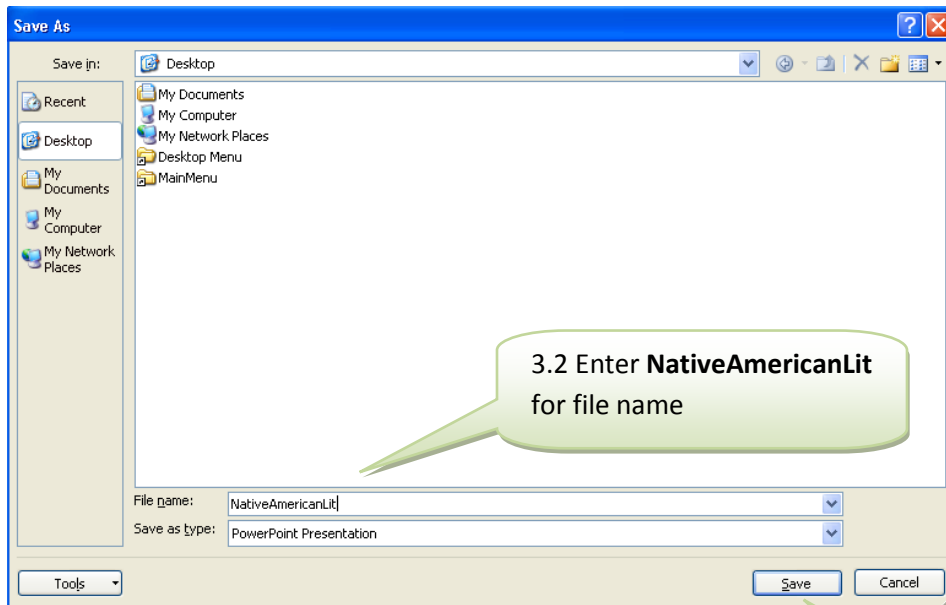
2.3 Click
The Aspect Design
Template



3. Save the File



3.1 Click the **save** icon



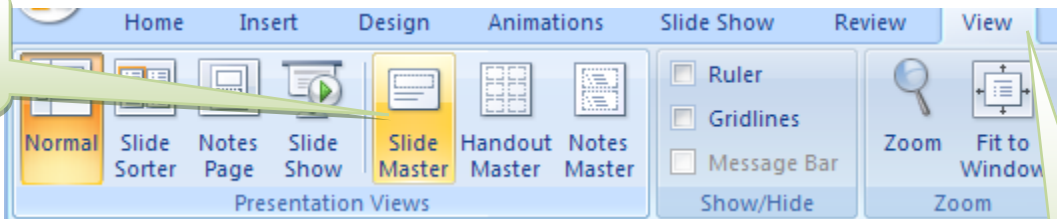
3.2 Enter **NativeAmericanLit** for file name

3.3 Click **Save**

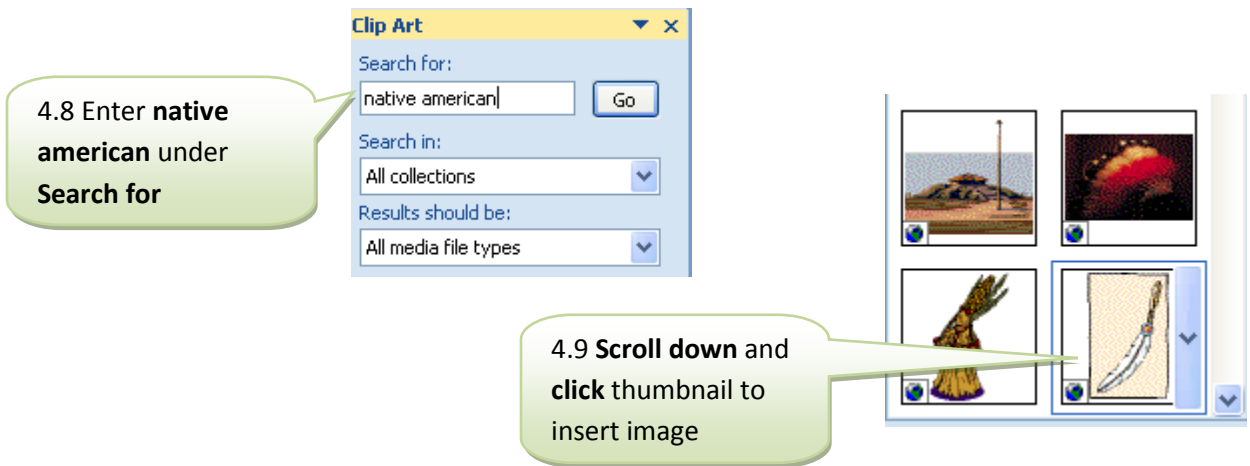
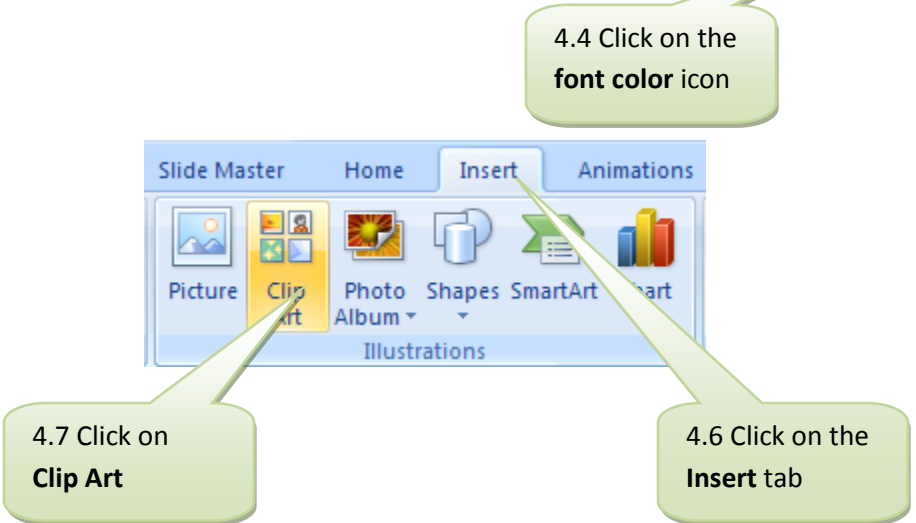
Note: Save your work frequently to prevent data loss.

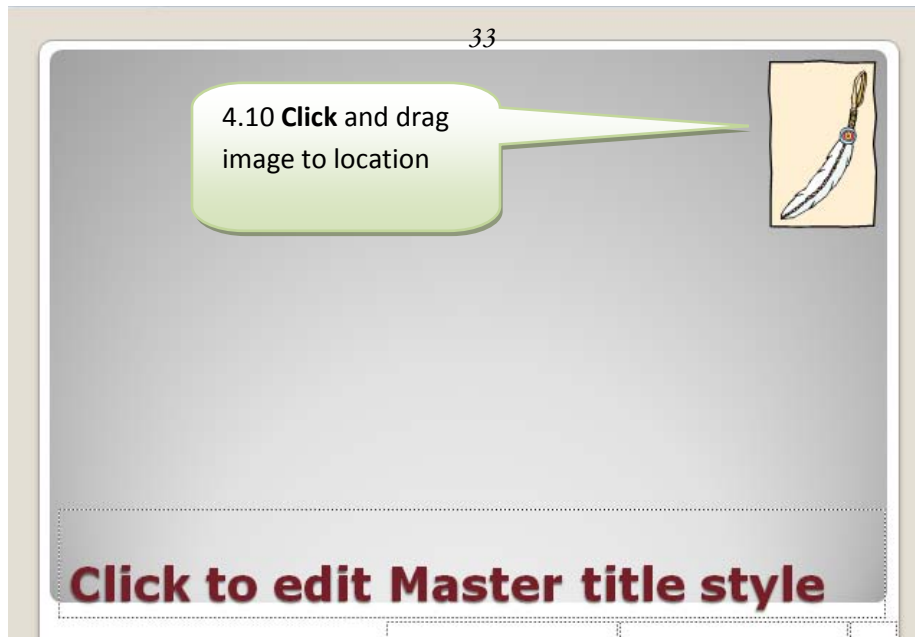
4. Edit the Slide Master

4.2 Click **Slide Master**



4.1 Click **View**





4.11 Click Close Master View

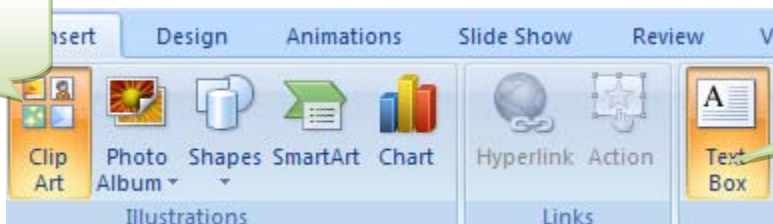
5. Enter the text



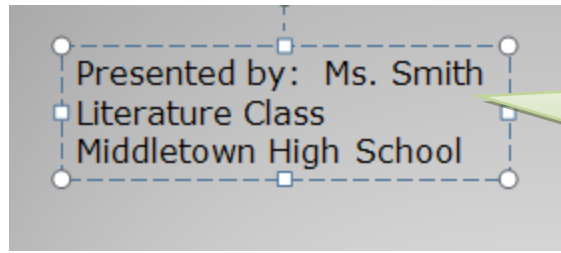
5.2 Type Native American Literature



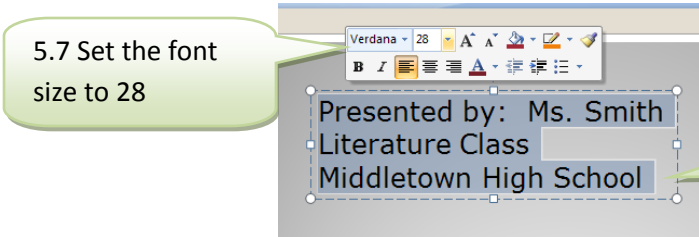
5.3 Click the Insert tab



5.4 Click the Text Box Icon



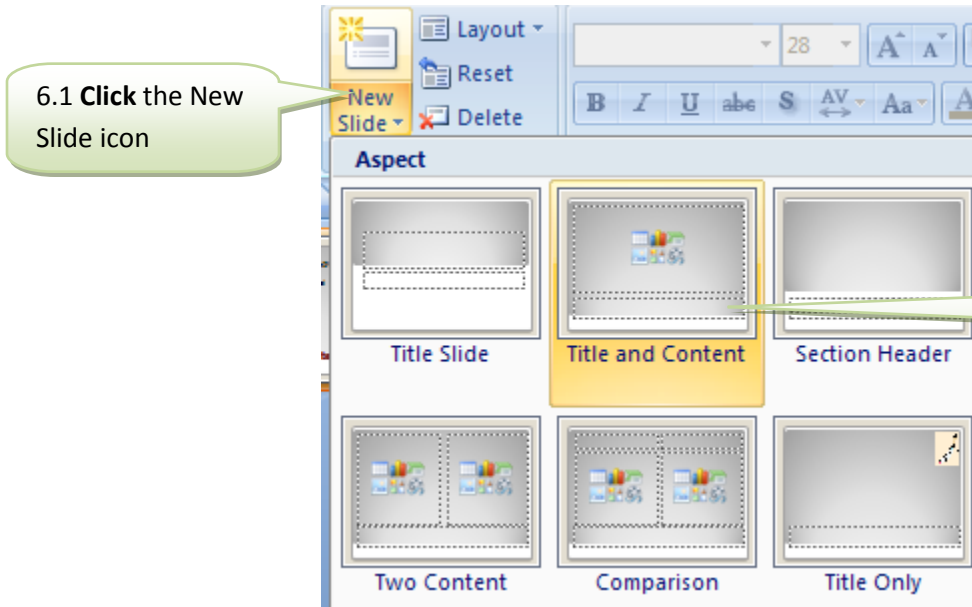
5.5 The text box will expand as you enter text



5.7 Set the font size to 28

5.6 Click and drag to highlight the text

6. Create a New Slide

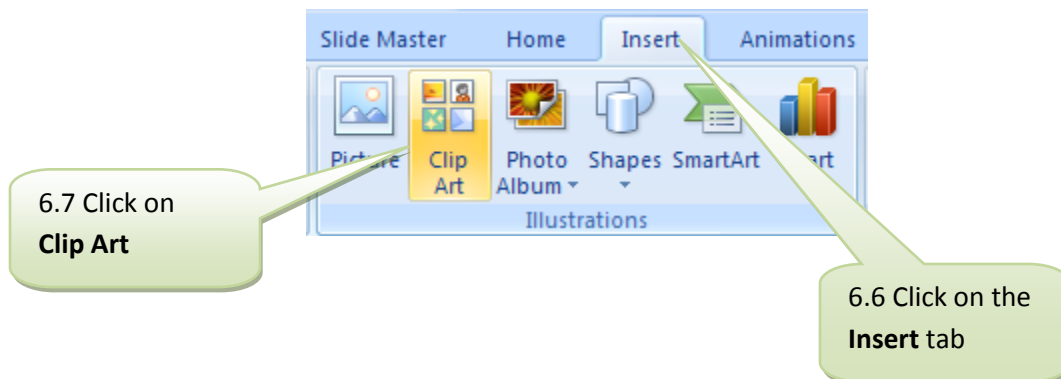
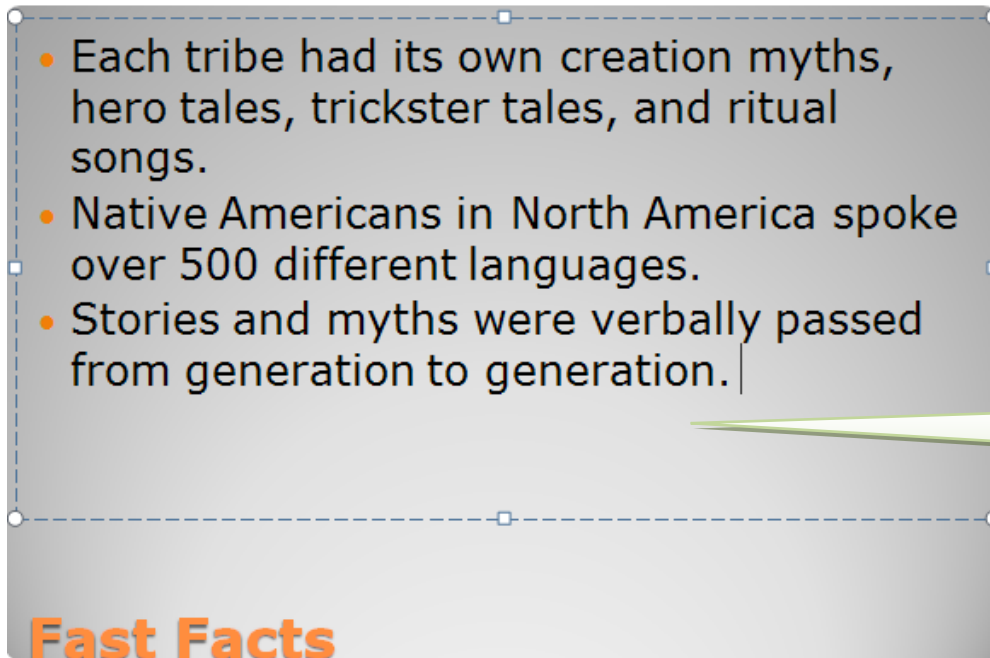
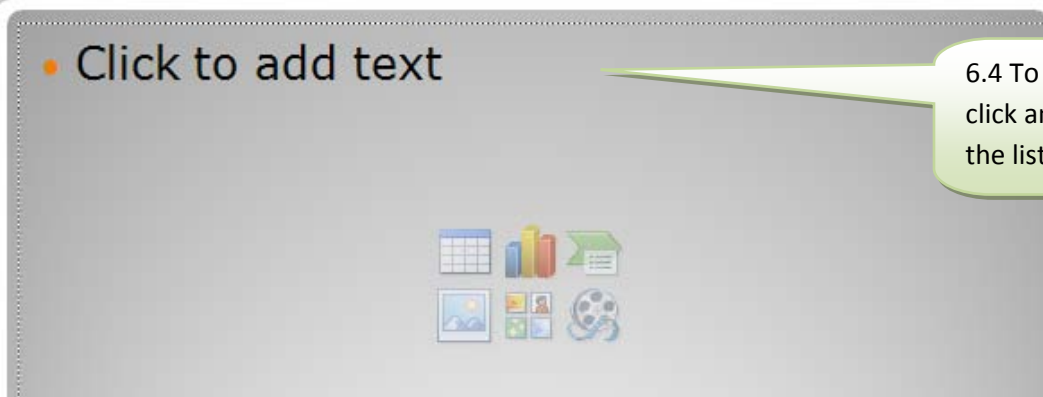


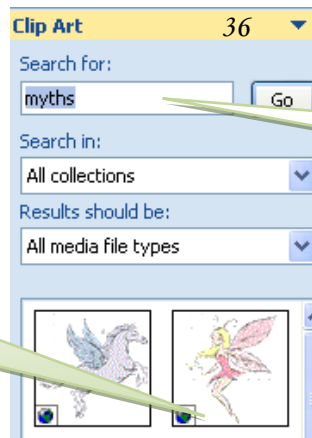
6.1 Click the New Slide icon

6.2 Click the Title and Content slide



6.3 Click and enter Fast Facts for the title of the new slide





6.8 Search for **Myths**

6.9 Click thumbnail to insert image

• Each tribe had its own creation myths, hero tales, trickster tales, and ritual songs.

• Native Americans in North America spoke over 500 different languages.

• Stories and myths were verbally passed from generation to generation.

Fast Facts

6.10 **Resize** and move image as needed

7. **Additional Skills**

7.1 Follow the same steps from 6.0 to create the remaining slides

• Native American storytelling often focused on living in harmony with the natural world: kinship with animals, plants, the land, and heavenly bodies. Humans do not have dominion over nature.

Storytelling

Search for **story**

- Natural elements were often personified, such as mother earth or father sky, and they were viewed as close family members.



Search for
mountains

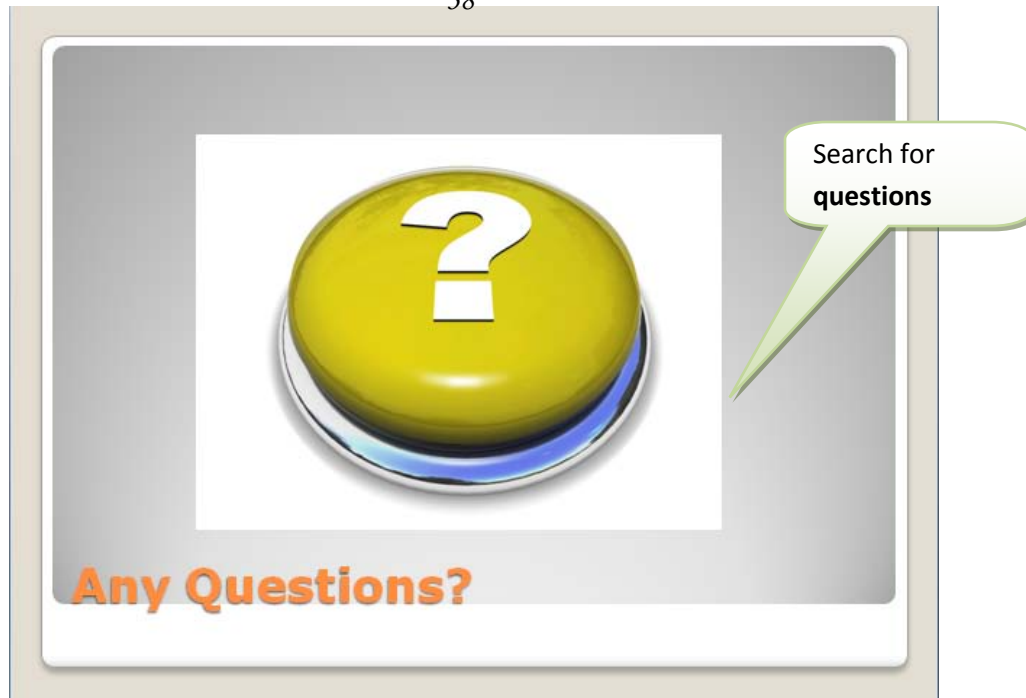
Nature

- Coyote trickster stories were used to explain strange phenomenon or "life's multiplicity and paradoxes"

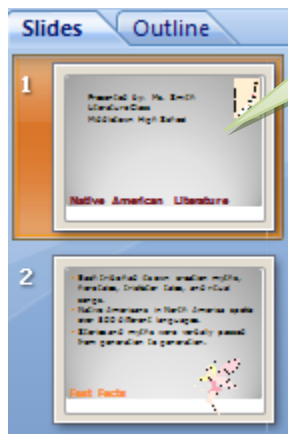


Search for
coyote

Coyote



8. Slide transitions

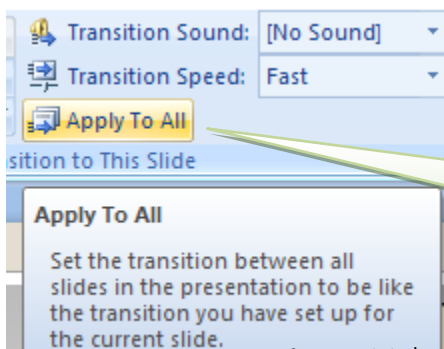


8.1 Click the thumbnail of the first slide

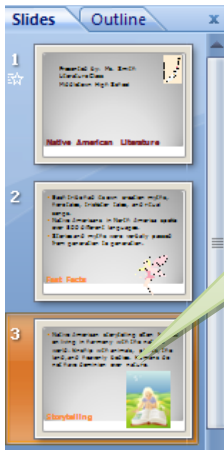


8.2 Click the Animation tab

8.3 Click the fades smoothly transition. Note: For the remaining slides, you can choose other transitions.

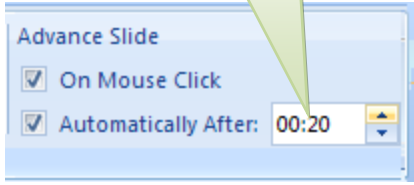


8.4 Click Apply to All

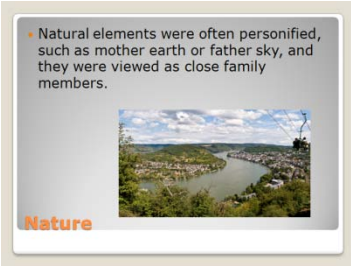


8.5 Click the thumbnail of the third slide

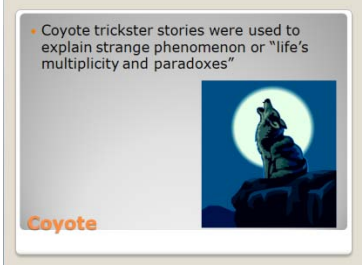
8.6 Set the time to 20 seconds



15 seconds



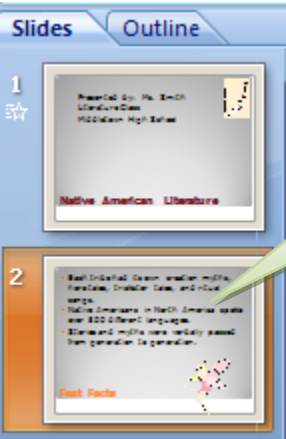
25 seconds



30 seconds

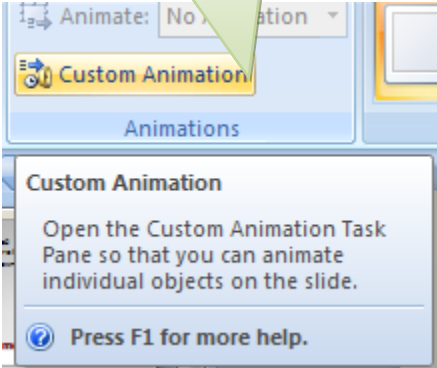
8.7 Follow steps 8.5 and 8.6 to set the timing for the remaining slides

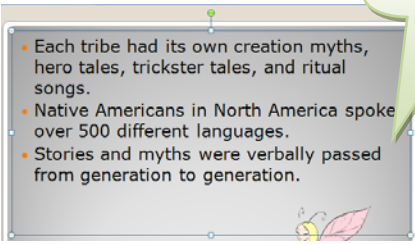
9. Animations



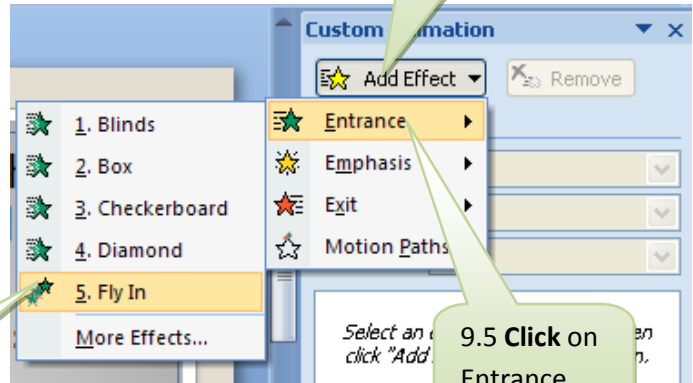
9.1 Click the thumbnail of the second slide

9.2 Click the custom animation button





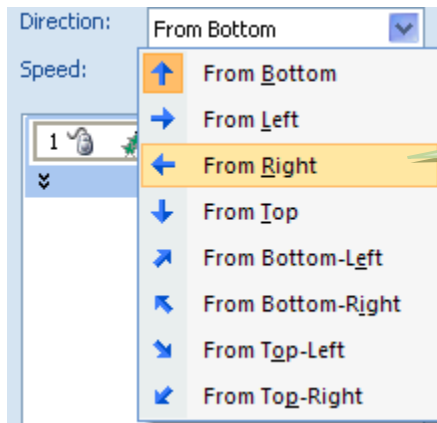
9.3 Click the text box to select it



9.4 Click the Add Effect button

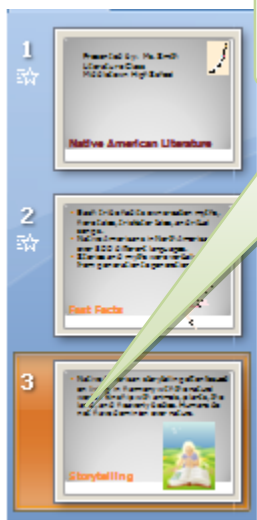
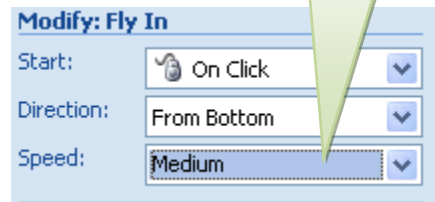
9.6 Click on Fly In

9.5 Click on Entrance



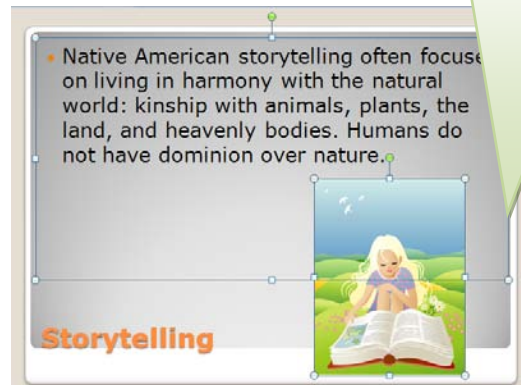
9.7 Change direction to From Right

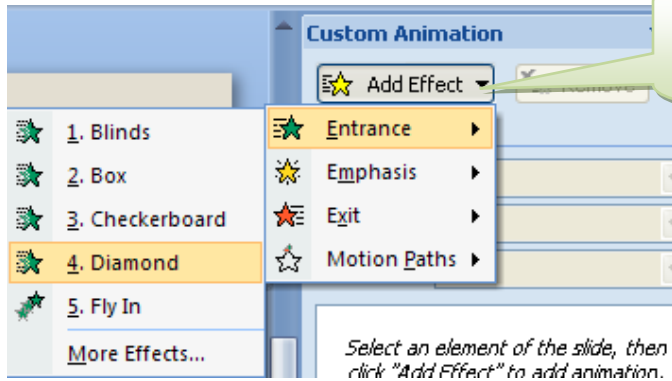
9.8 Change the speed to Medium



9.9 Click the thumbnail of the third slide

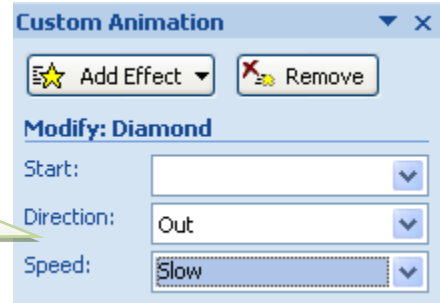
9.10 Click the text box. Hold down the ctrl key and click the picture





9.11 Click Add Effect > Entrance > Diamond

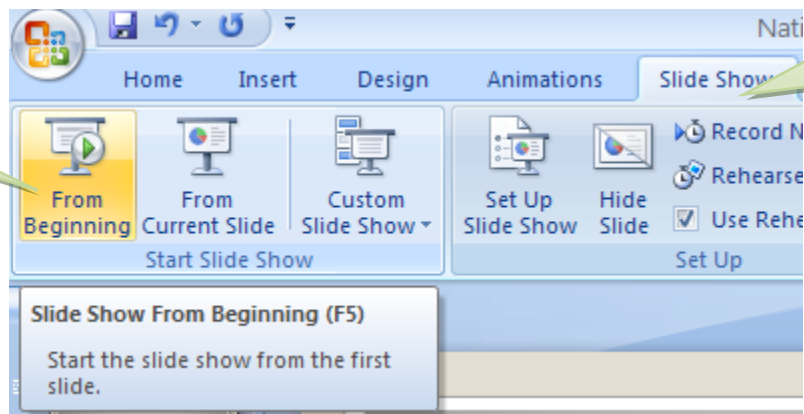
9.12 Change the Direction to out and the Speed to slow



9.13 Continue this animation scheme for the remaining slides

10. View the slide show

10.2 Click From Beginning

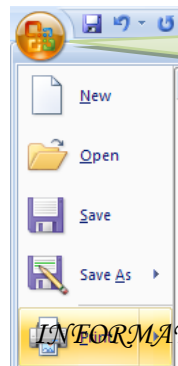


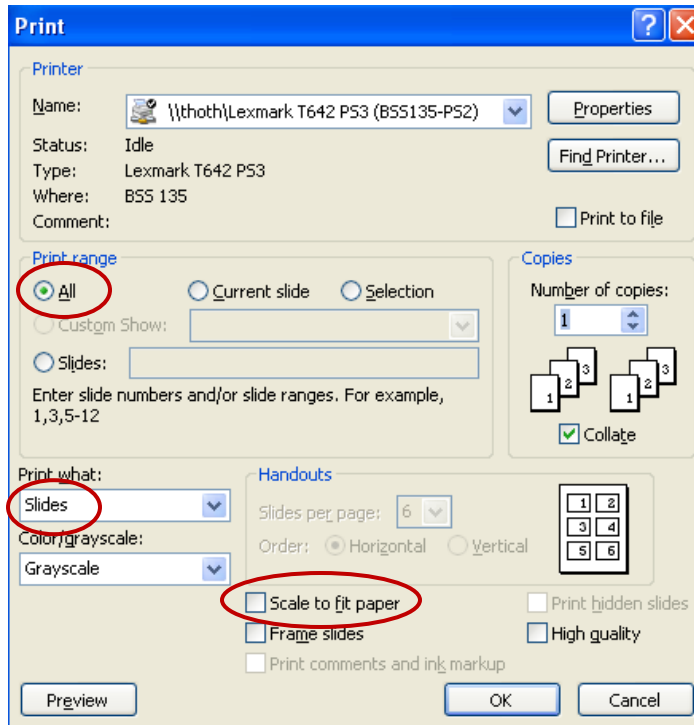
10.1 Click the Slide Show tab

10.3 Press the Esc key to stop the show

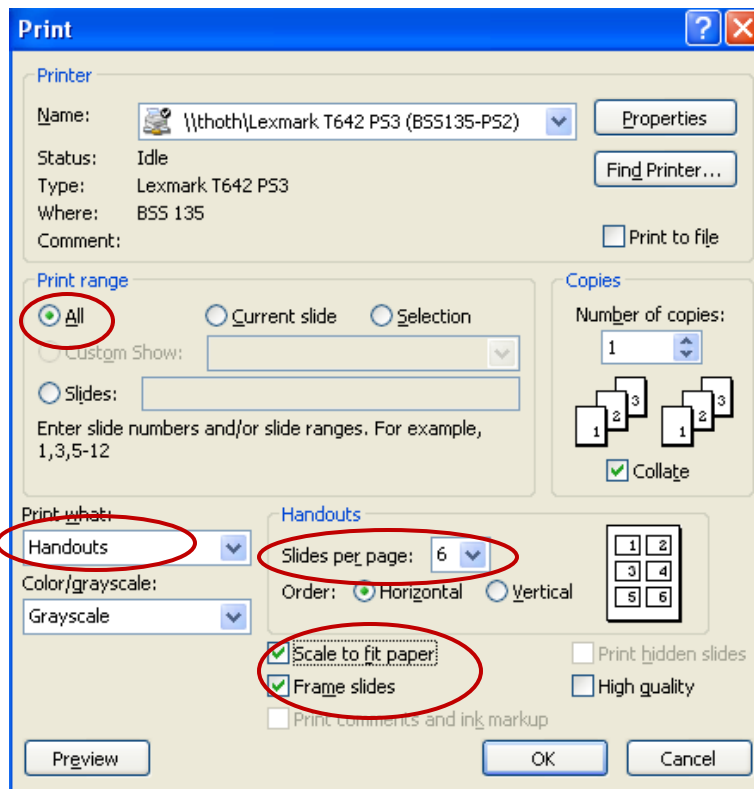
11. Printing

11.1 Click The Office Button





11.2 Use these settings to print each slide separately



11.3 Use these settings to print handouts