

Brighten Your Classroom With Visual Aids

Joel Johnson

Strategies for Producing Effective Classroom Visual Aids

Introduction

This program was designed for instructors of any level who want to improve their classroom visuals. Before I created this program fellow instructors often asked me how I made the visuals that I use in my classes. At that time I used Adobe's PhotoShop, PageMaker, or Illustrator to create my overheads, handouts, and presentation materials. Unfortunately, most of the instructors in the department did not have these programs on their home or office computers and they were too complicated for beginners to pick up and use. The one program that everyone seemed to have on their computers was Microsoft's Word. Word couldn't do the job of all these other programs, or so I thought. I started to work with the program and found that it was extremely capable of dealing with a wide variety of challenges. Overheads, handouts, graphs, numeric data, even web authoring. The more I worked with it the more useful functions I found. Everything in this manual was created using Word, Explorer (web browser), a home PC, hp ScanJet 5100c flatbed scanner and an Epson Stylus Color 600 bubble jet printer.

The objectives of this manual are two-fold. First, it is designed to be used as a visual reference on how to make a variety of visual aids using only basic computer tools such as Microsoft Word, and a web browser (i.e. Explorer, Navigator). Second, it is designed to be used as a manual to instruct others on how to create effective classroom visual aids.

In the first section [Using Microsoft Word](#) I will visually walk you through the process of using Word to create charts and graphs, Illustrations, and pictures. Word will create sharp, clear graphs (pie, bar, scatterplot), and organizational flow charts using spreadsheet style data. Word has a variety of pre-made shapes and clip art that can be used to create illustrations. Word also can be

used to place pictures into classroom visuals. Photographic images can be brought in from the Internet or from the clip art included with Word.

The [World Wide Web](#) section is one that I think instructors will find especially interesting. Web pages about almost any subject you can think of are available and easy to work with. Images, text, and even whole web pages can be utilized to make visuals that are visually stunning and easily created. Again, I walk you through this process visually, step-by-step.

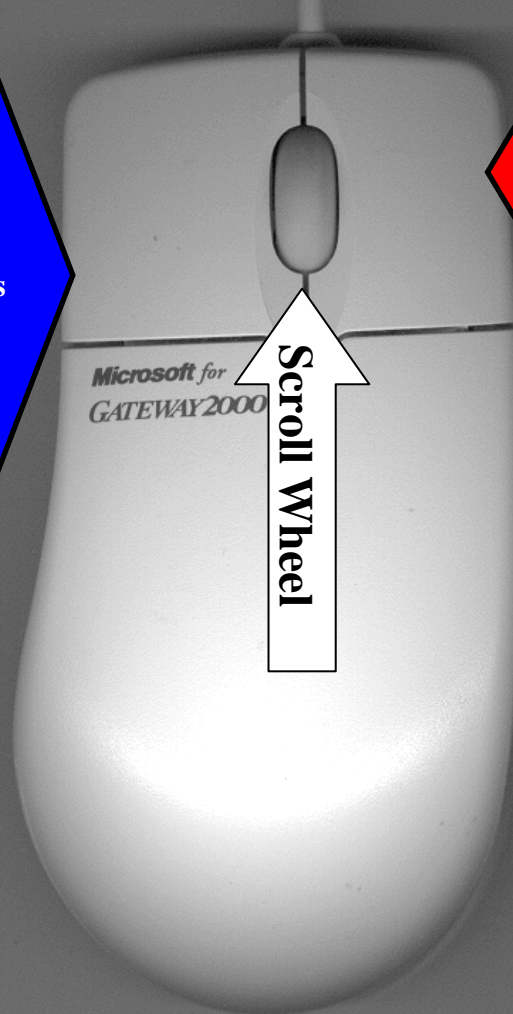
In the [Overhead Overlays](#) section I will show you how to use overheads to create images that are active and changing. You don't need an expensive computer projection system and Power Point to animate images just a little instruction and your imagination. Here I will cover how to use multiple overheads to build your ideas from the ground up, how to use background overheads as base cells to write on, and how to use overheads to create animated question and answer sessions.

In the [Troubleshooting](#) section I will give you some tips on how to use the KISS principle to improve your overall designs, how to get technical help for problems that this manual does not solve, and how to utilize contingency plans to insure that your presentations go smoothly.

At the end of this manual I have included [Instructor Notes](#) that will assist instructors who want to teach others how to create better visual aids. Here I have included a number of sample overheads and print pieces, as well as overheads of some of the images in this manual to assist instructors. I have also included some tips on how to apply the techniques that I used in creating this manual to other instructional presentations.

The Basics

Click (left click)
Depress the left button once here to select an item depress it twice to select and open that item.



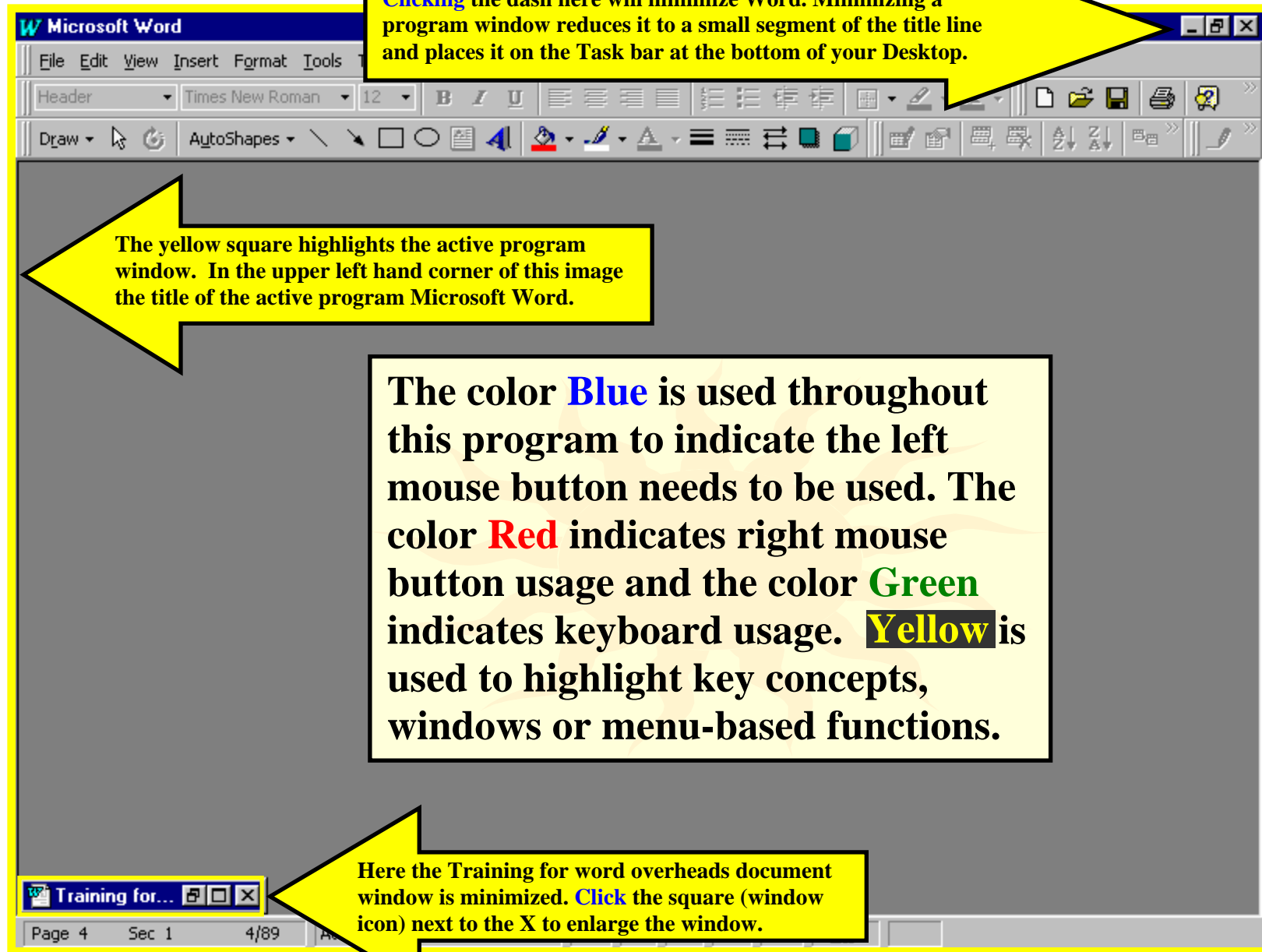
Scroll Wheel

Right Click
Right click once to get to frequently used menu shortcuts.

The Mouse

The mouse is your main interface with Word. The **left click (a.k.a. click)** illustrated by the **blue arrow** (below) is used to select items, a double click selects an item and then, if possible launches or opens it. If you click, hold, and drag (move) the mouse across the mouse pad you can move selected object from one place to another, stretch or expand an object or menu. **Right clicking** illustrated by the **red arrow** (below) will bring up shortcuts to menu commands like Edit menu commands cut copy and paste. **Right clicking** will also allow you to format an item you have selected by **left clicking** on that item. An item can be a text box, picture, or graphic. **Left clicking** over text activates the text cursor and allows you to edit text in that area. The **scroll wheel** is an optional mouse accessory. It scrolls the screen up and down when you rotate the scroll wheel forward and back. A nice, inexpensive add on. It isn't a necessity.



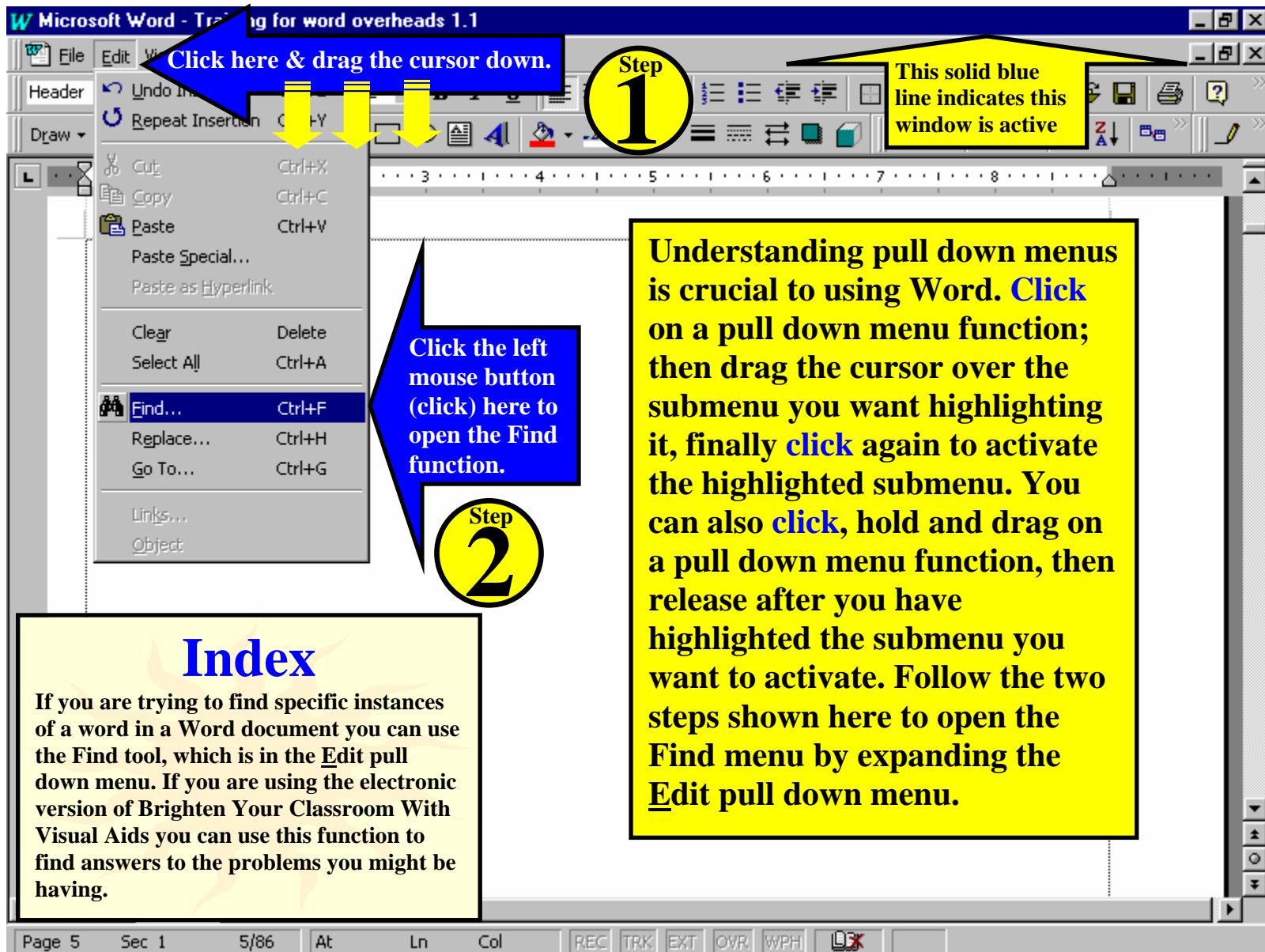


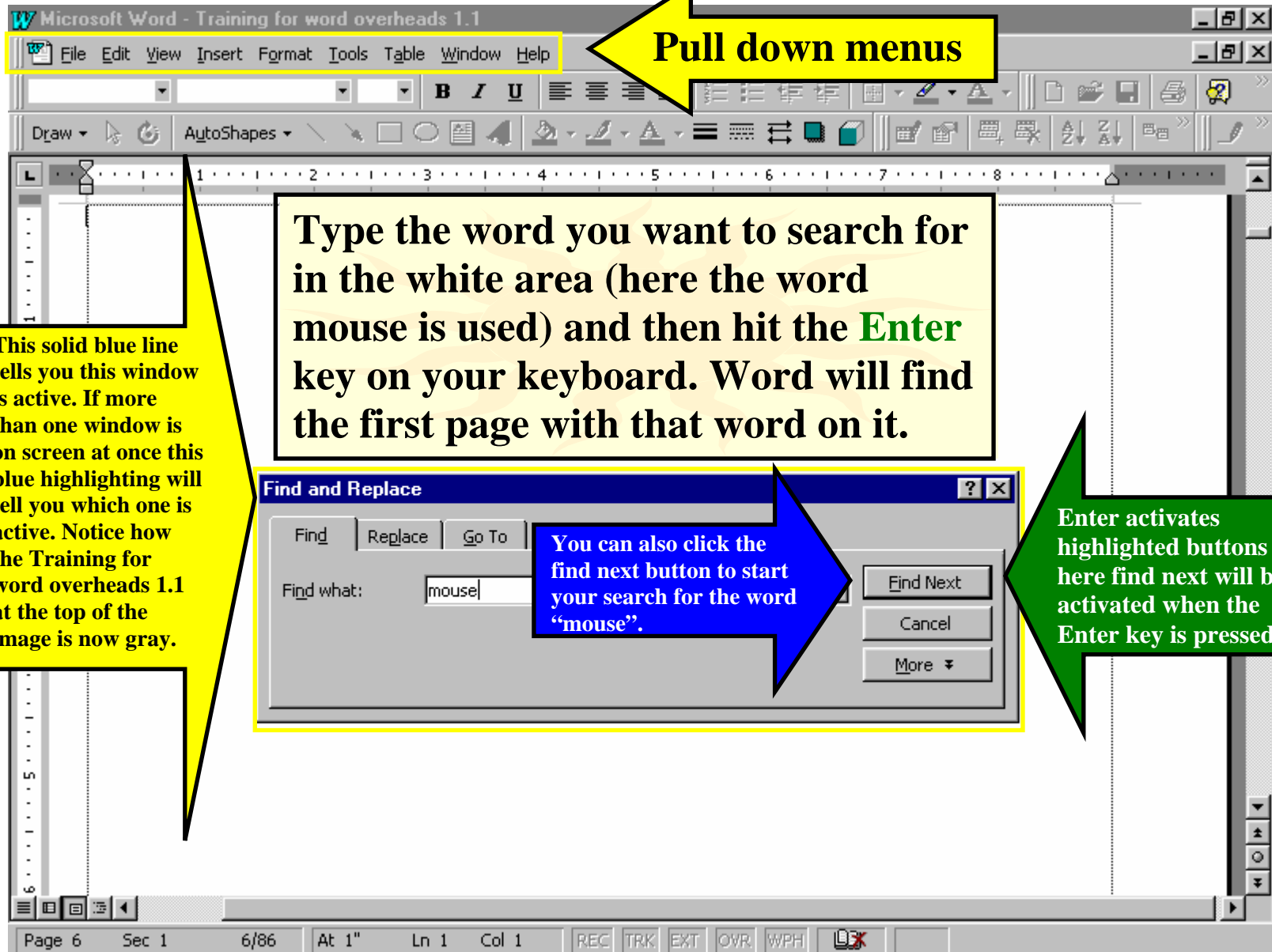
Clicking the dash here will minimize Word. Minimizing a program window reduces it to a small segment of the title line and places it on the Task bar at the bottom of your Desktop.

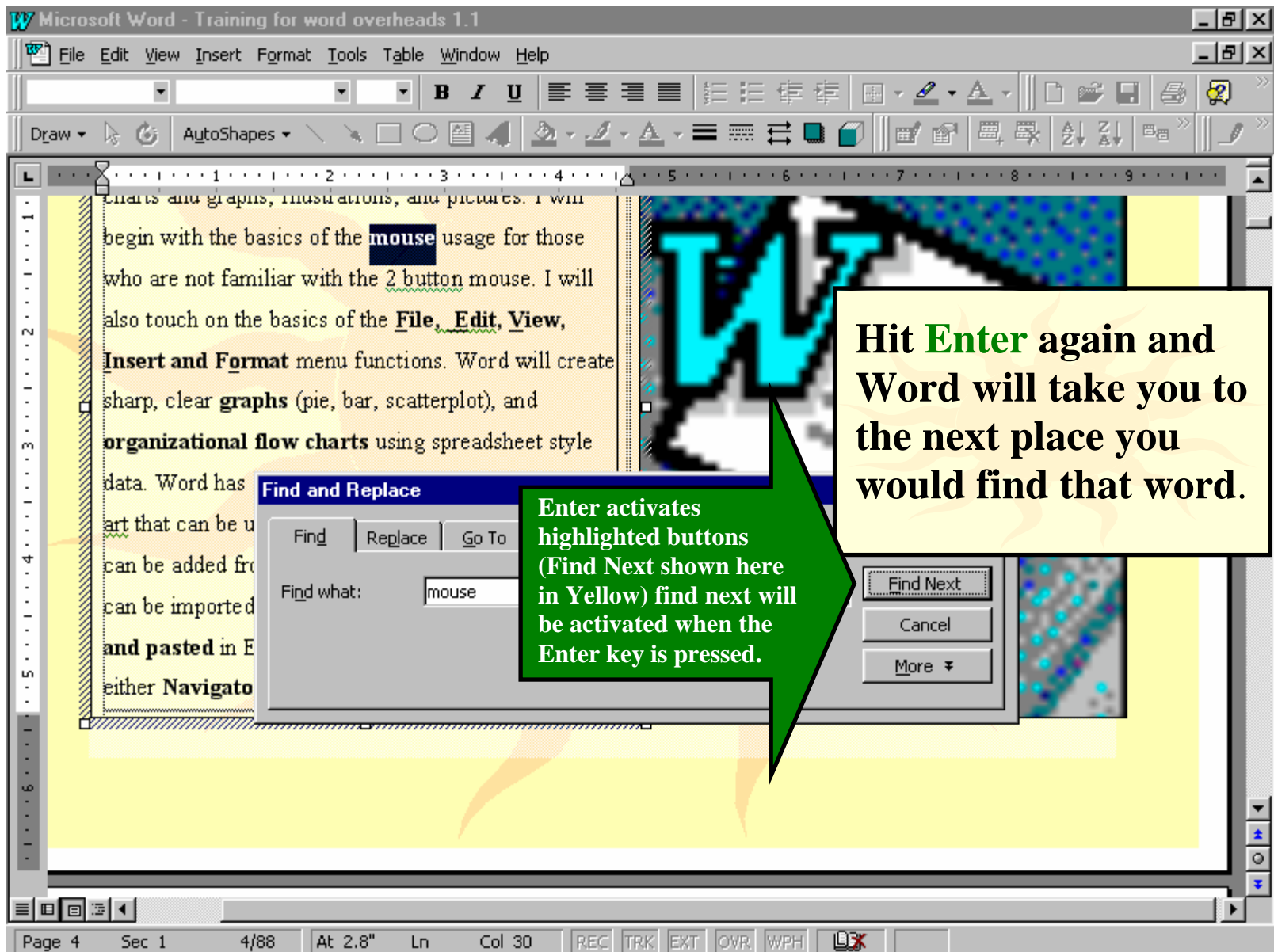
The yellow square highlights the active program window. In the upper left hand corner of this image the title of the active program Microsoft Word.

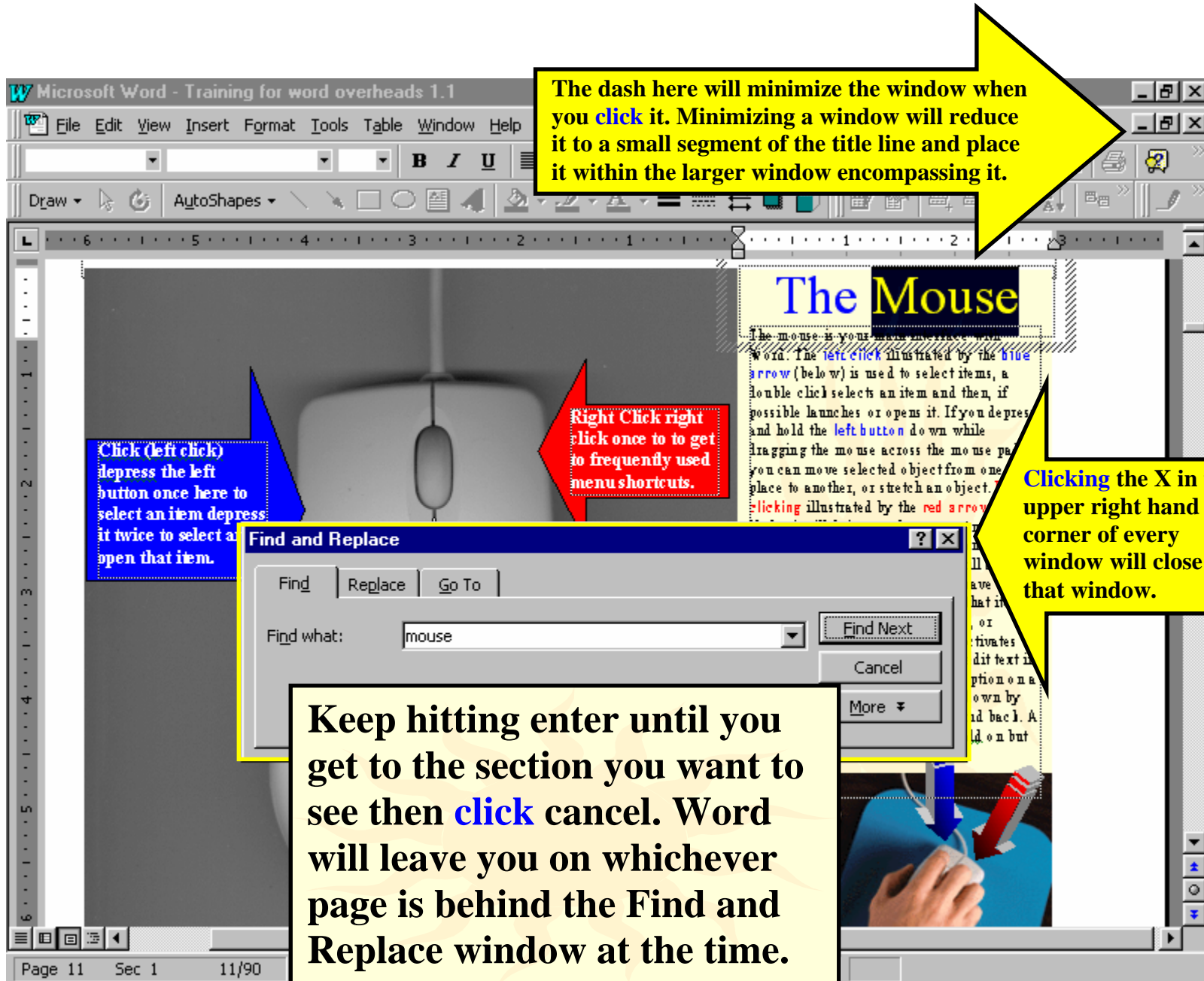
The color **Blue** is used throughout this program to indicate the left mouse button needs to be used. The color **Red** indicates right mouse button usage and the color **Green** indicates keyboard usage. **Yellow** is used to highlight key concepts, windows or menu-based functions.

Here the Training for word overheads document window is minimized. Click the square (window icon) next to the X to enlarge the window.









The dash here will minimize the window when you click it. Minimizing a window will reduce it to a small segment of the title line and place it within the larger window encompassing it.

Click (left click) depress the left button once here to select an item depress it twice to select and open that item.

Right Click right click once to get to frequently used menu shortcuts.

Clicking the X in the upper right hand corner of every window will close that window.

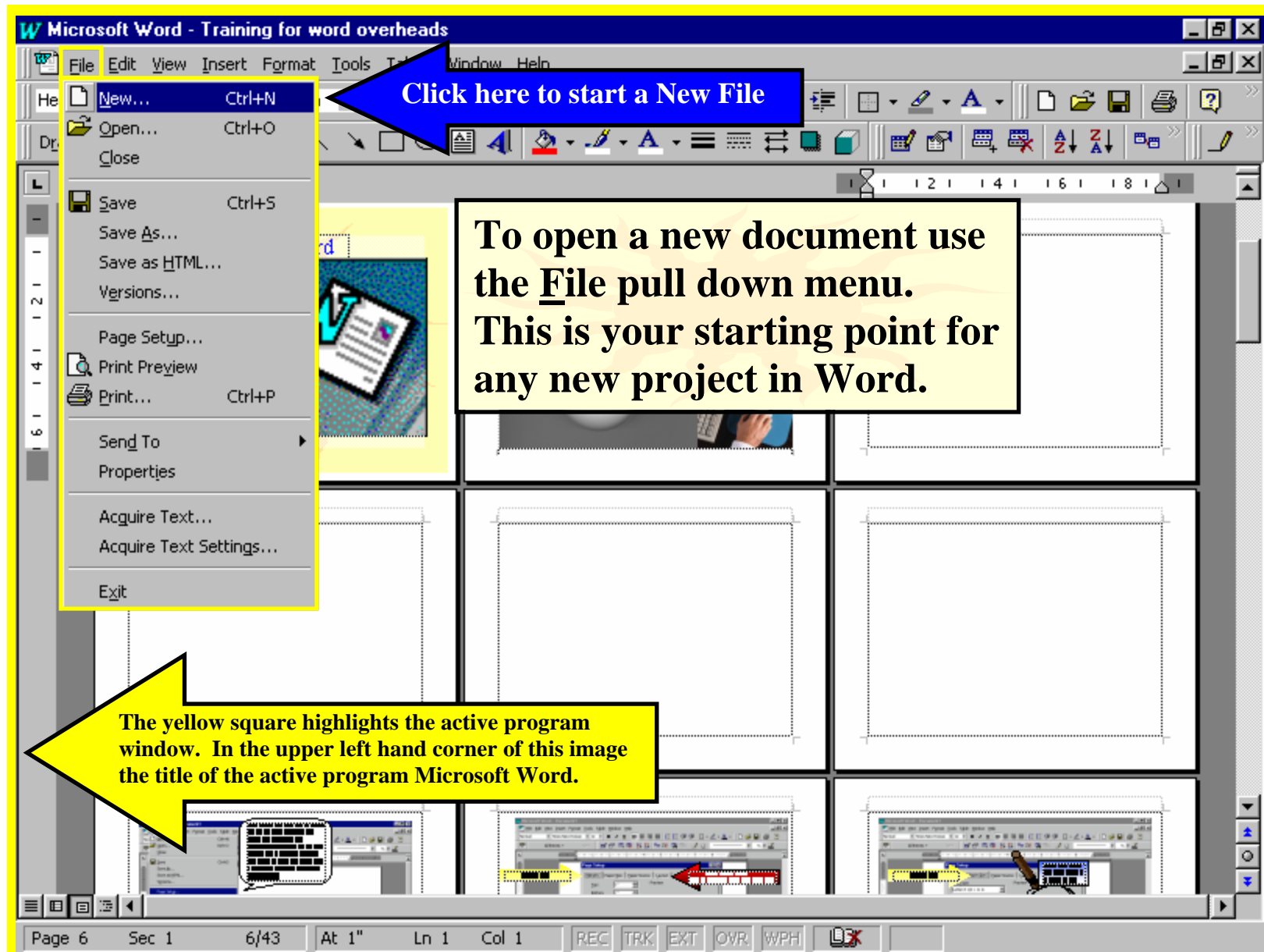
Keep hitting enter until you get to the section you want to see then click cancel. Word will leave you on whichever page is behind the Find and Replace window at the time.

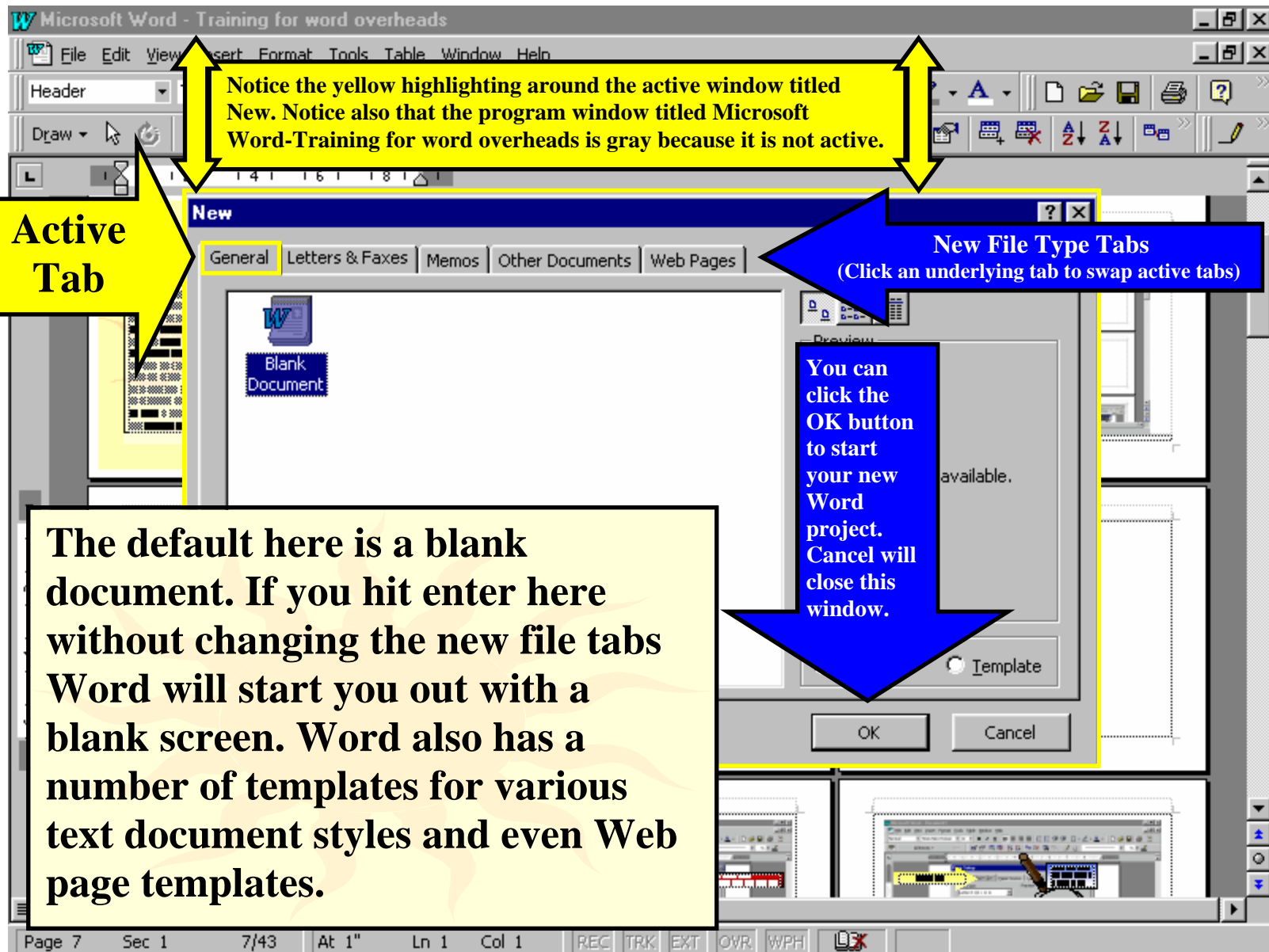


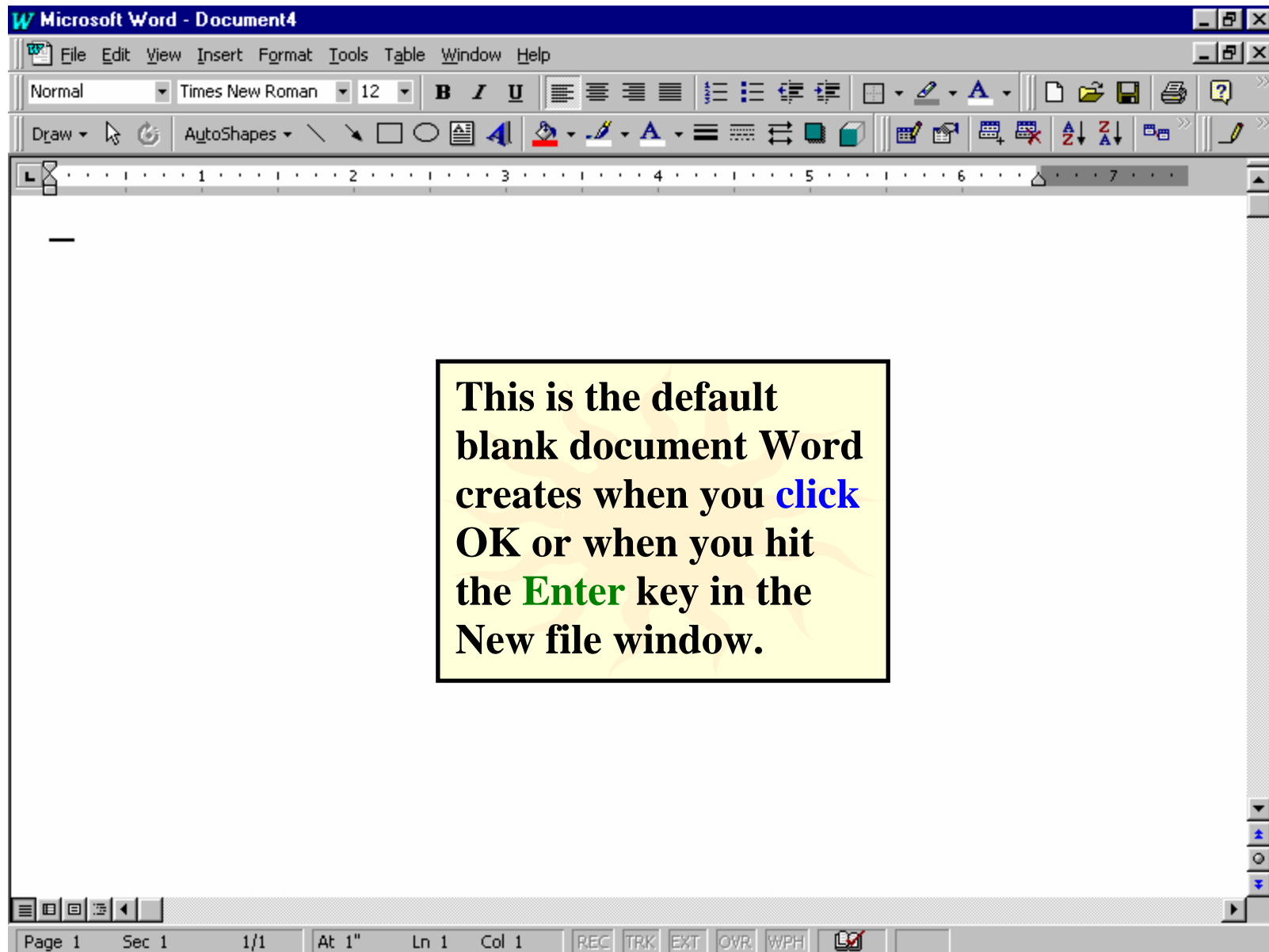
Using Word

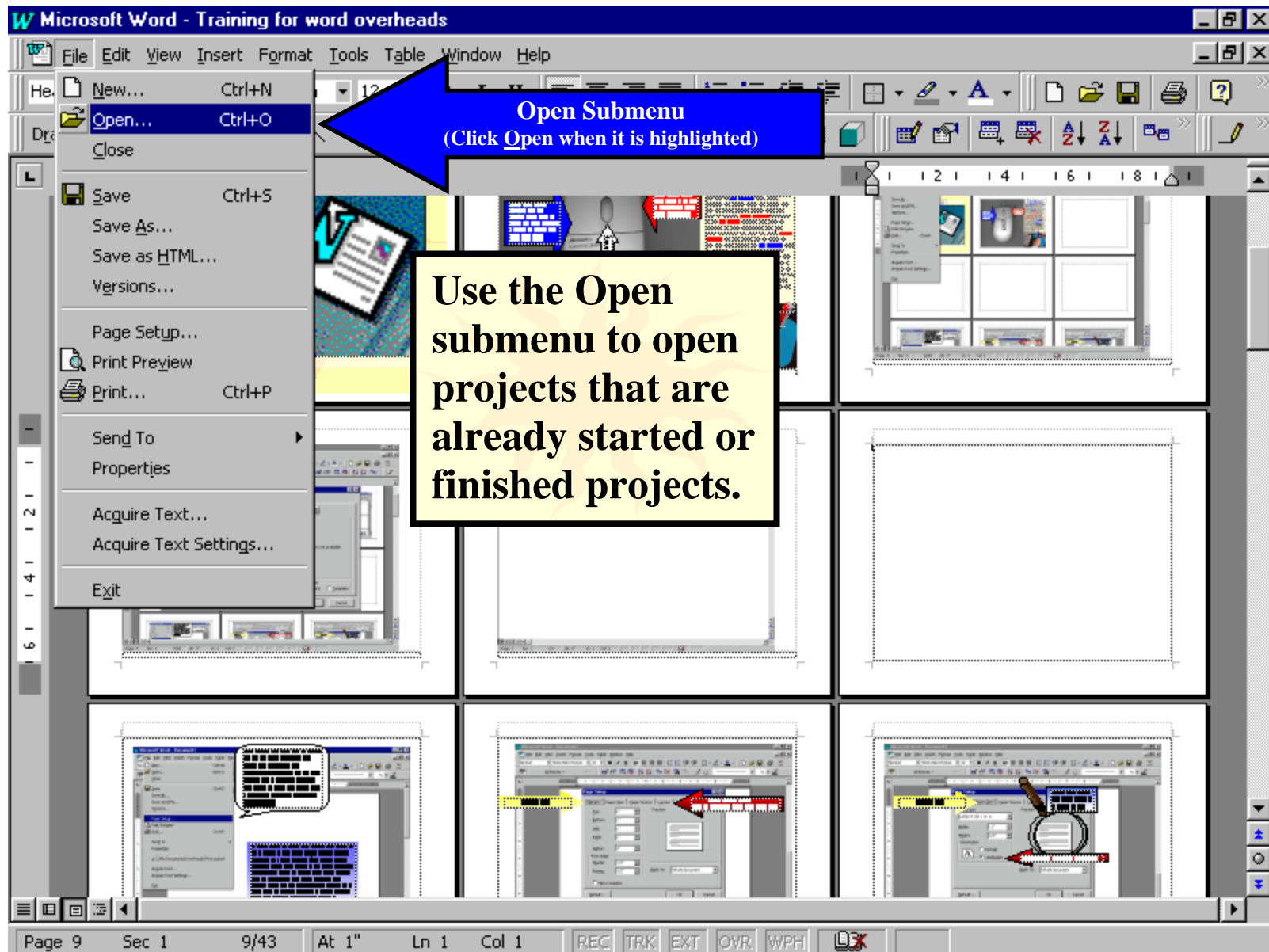
This section **Using Word** covers the basics of menu functions, as well as how to use illustrations, pictures, charts, graphs and tables in Word. Word has a variety of pre-made shapes and clip-art that can be used to create **illustrations**. **Pictures** can be added from the clip-art collection, scanned or it can be imported from the Internet. Word will create **graphs** (pie, bar, scatter-plot), and **organizational flow charts** using spreadsheet style data. Word will also create **tables**. Data can be **copied and pasted** in Explorer, or **saved and imported** in either **Navigator** or **Explorer**) to bring information into Word from the Internet. Also, different ways to get outside help and additional resources will be covered.

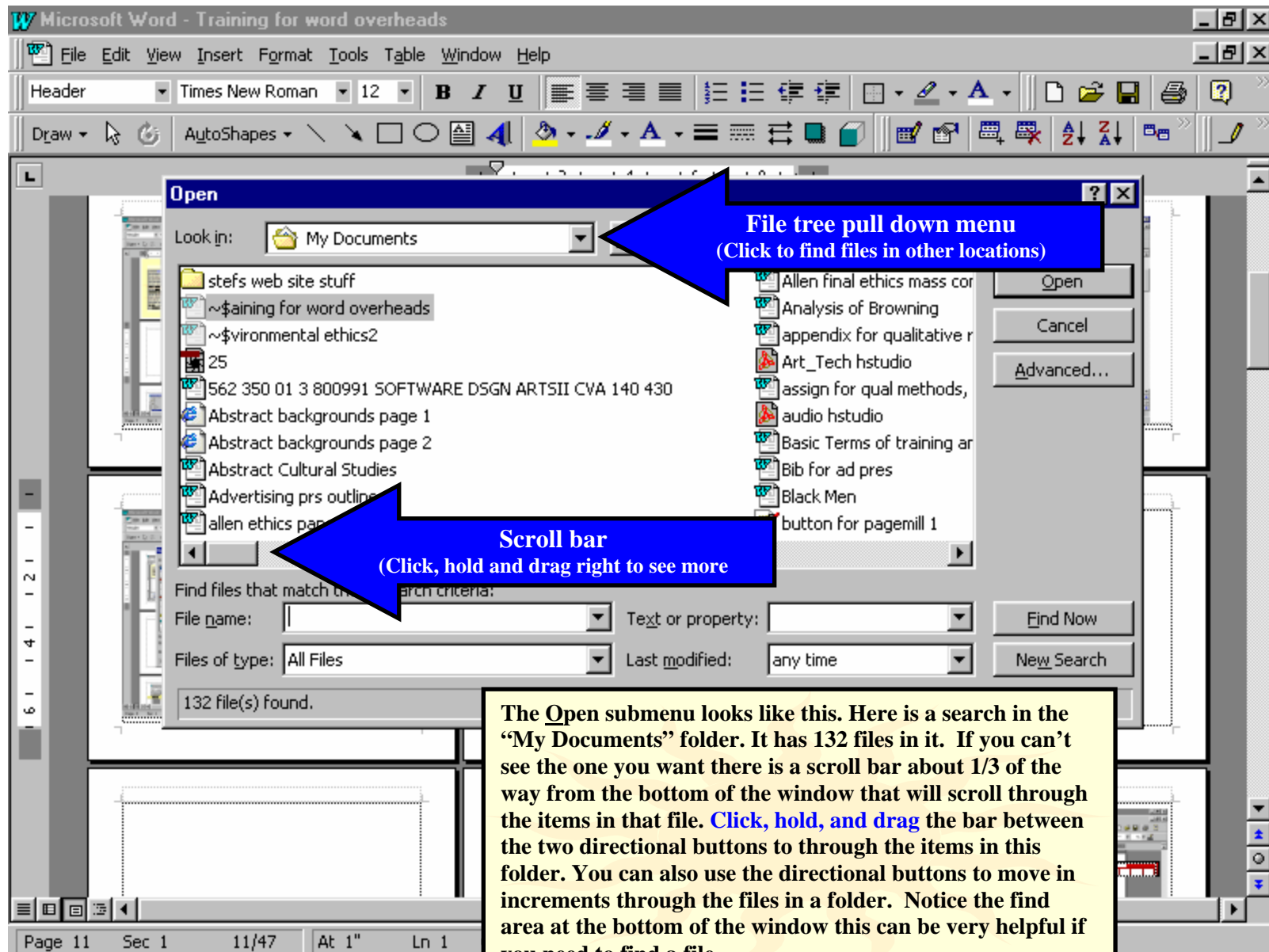


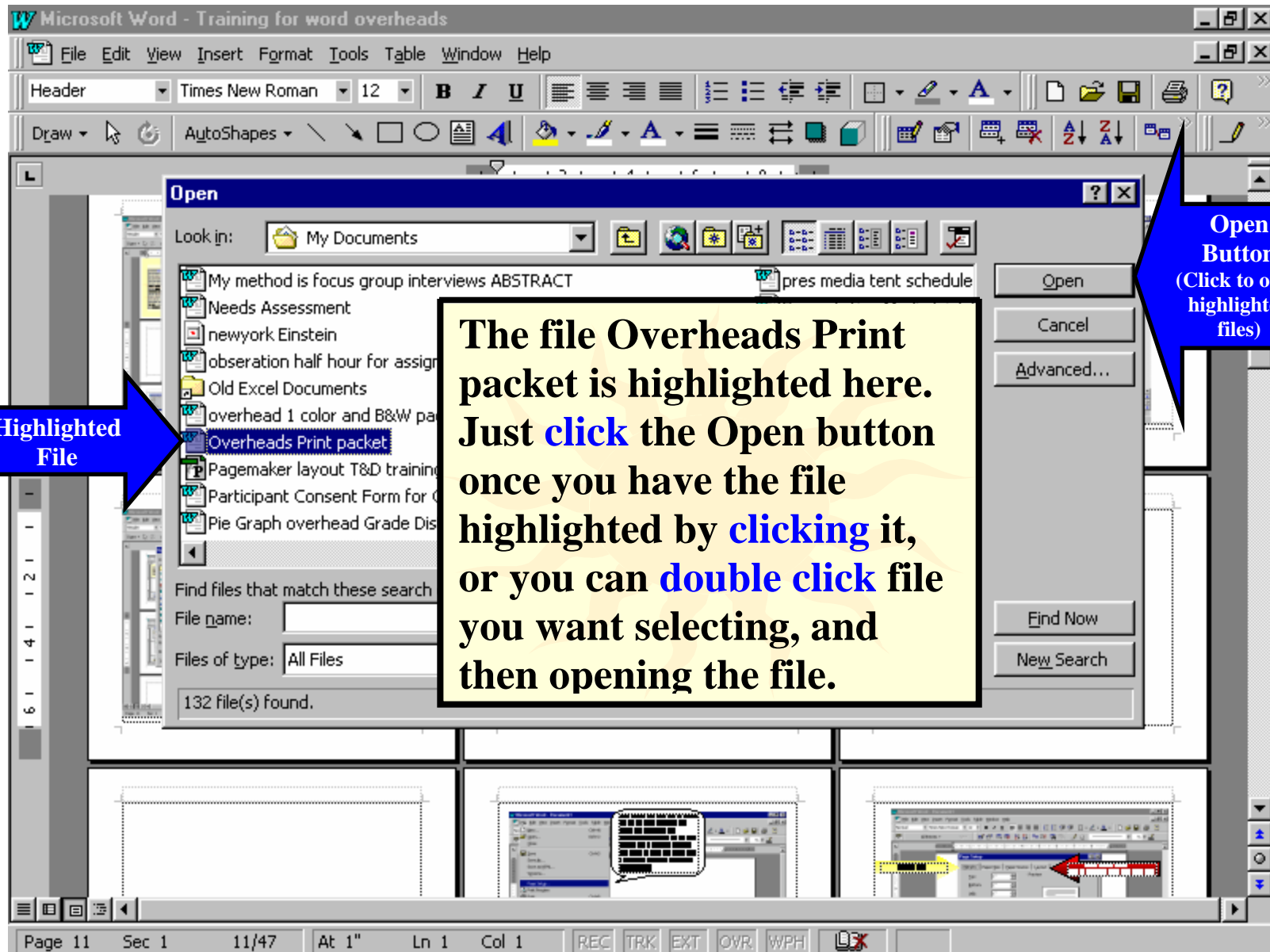


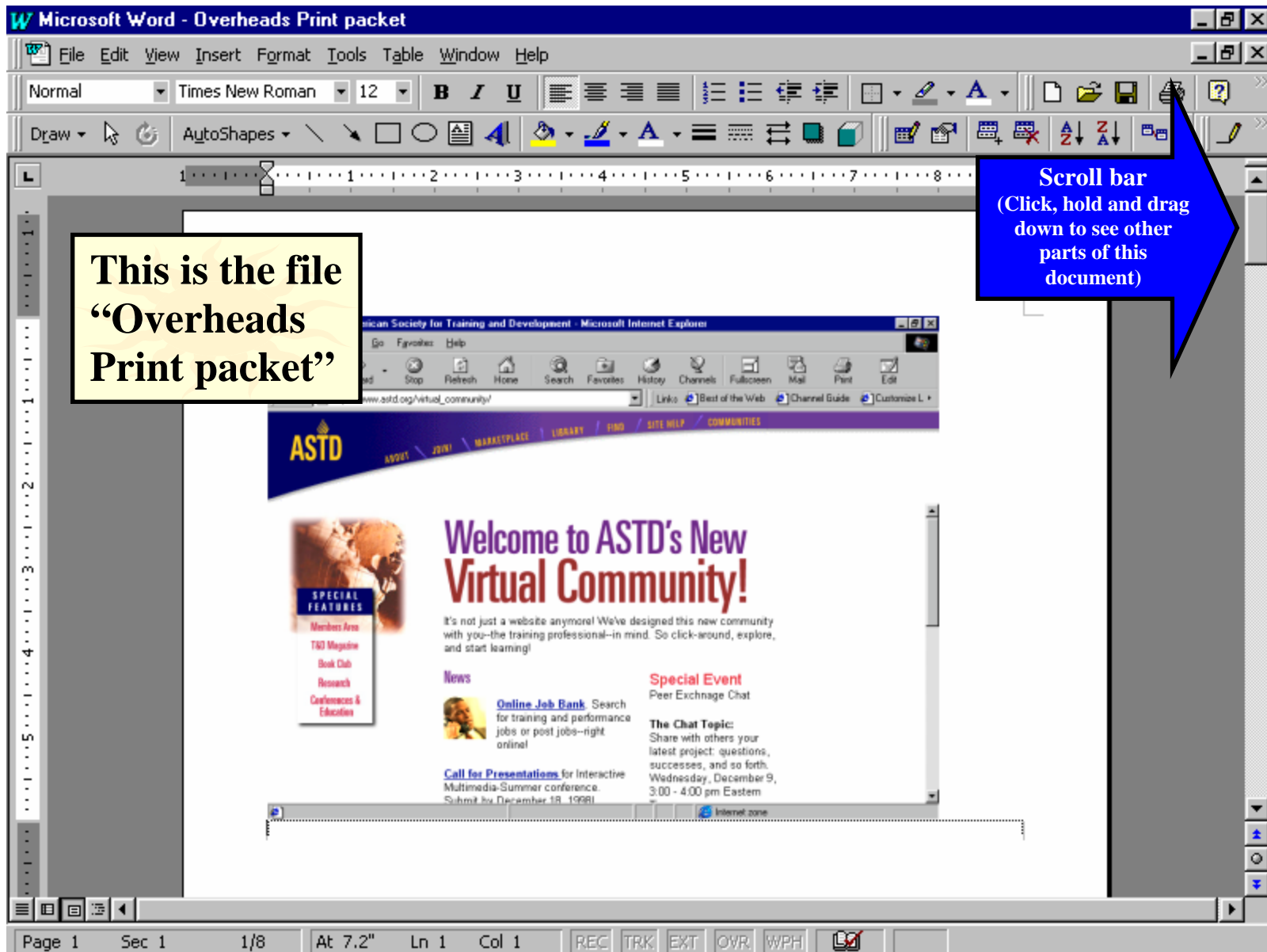






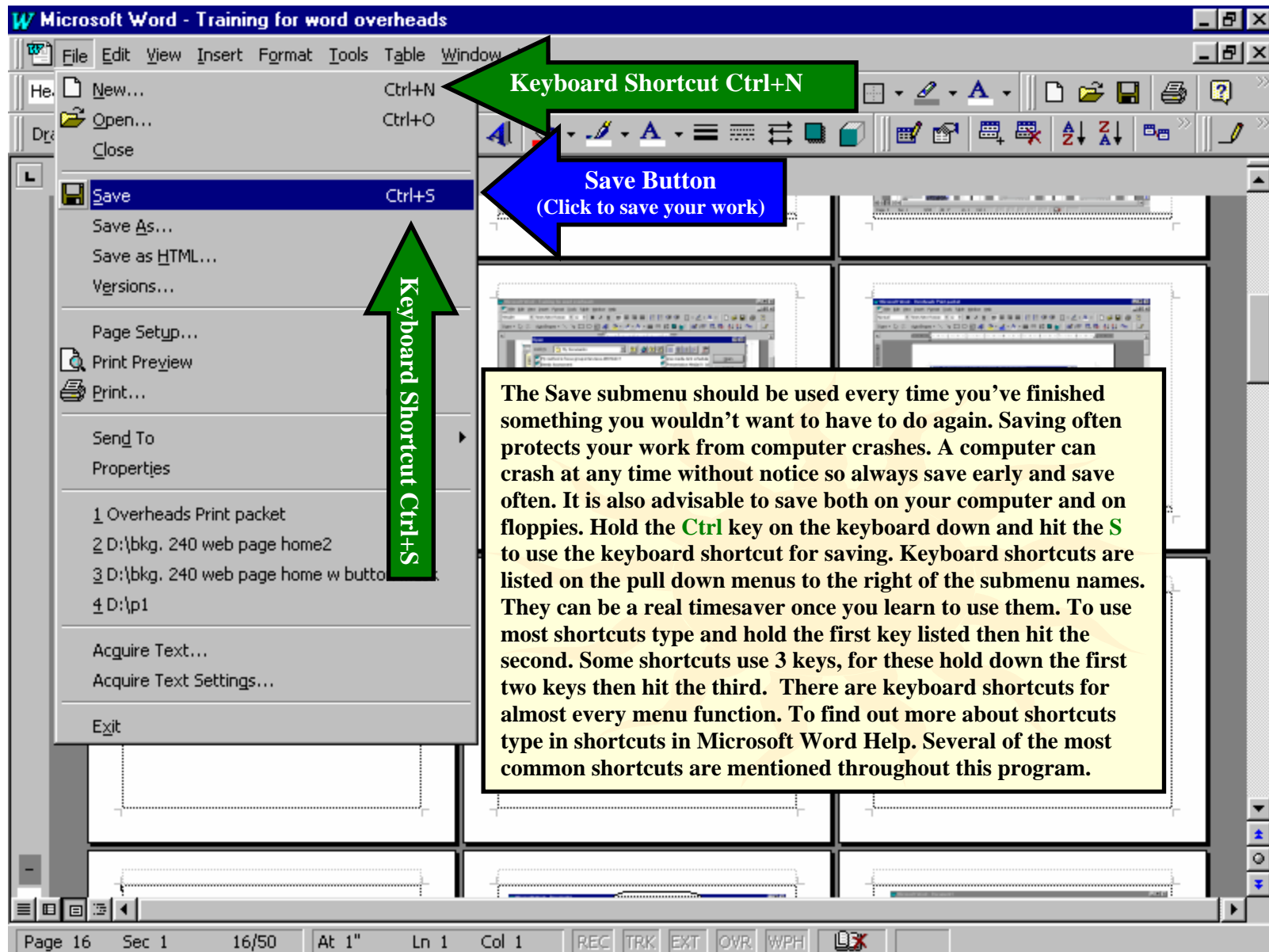


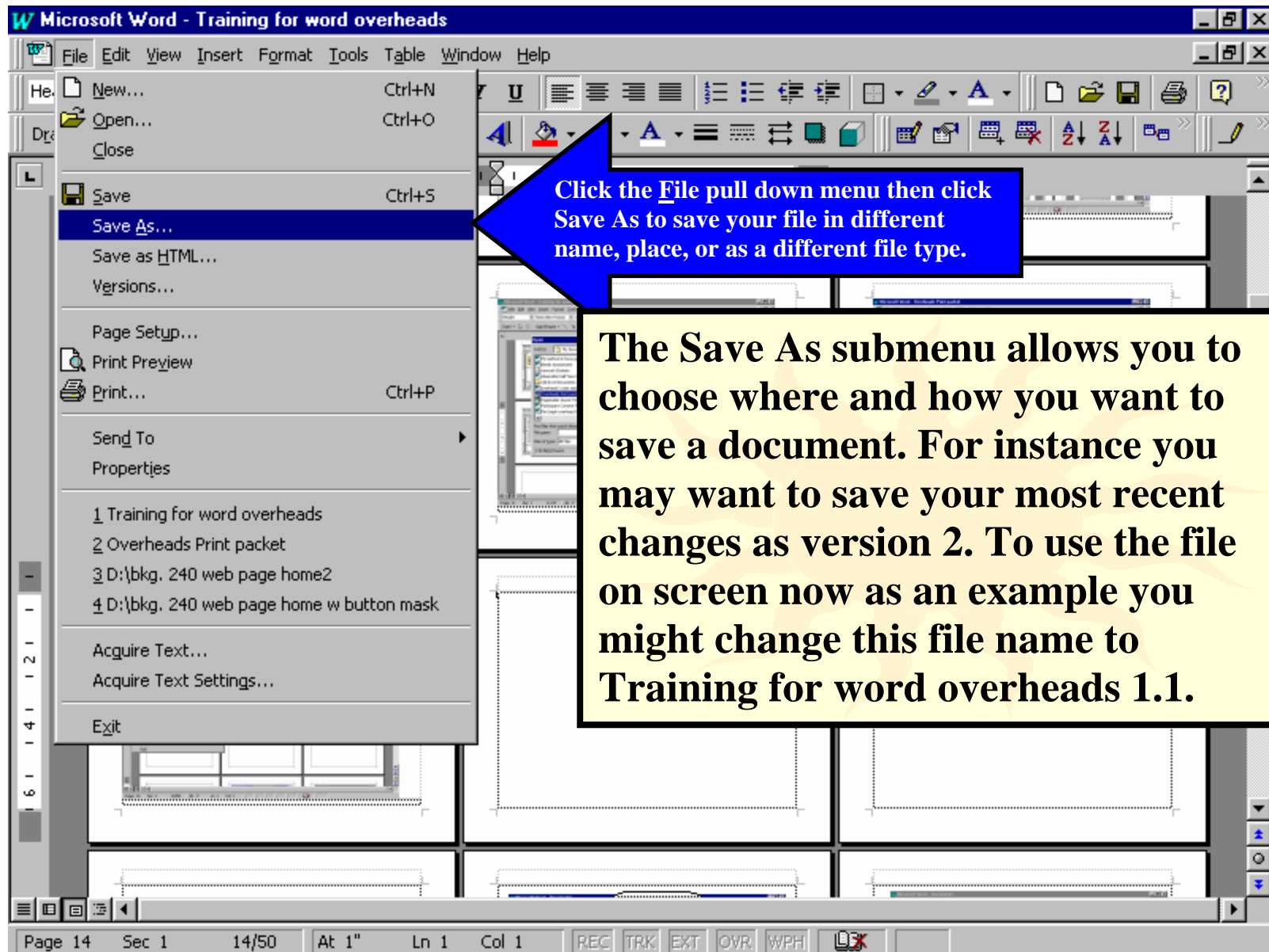


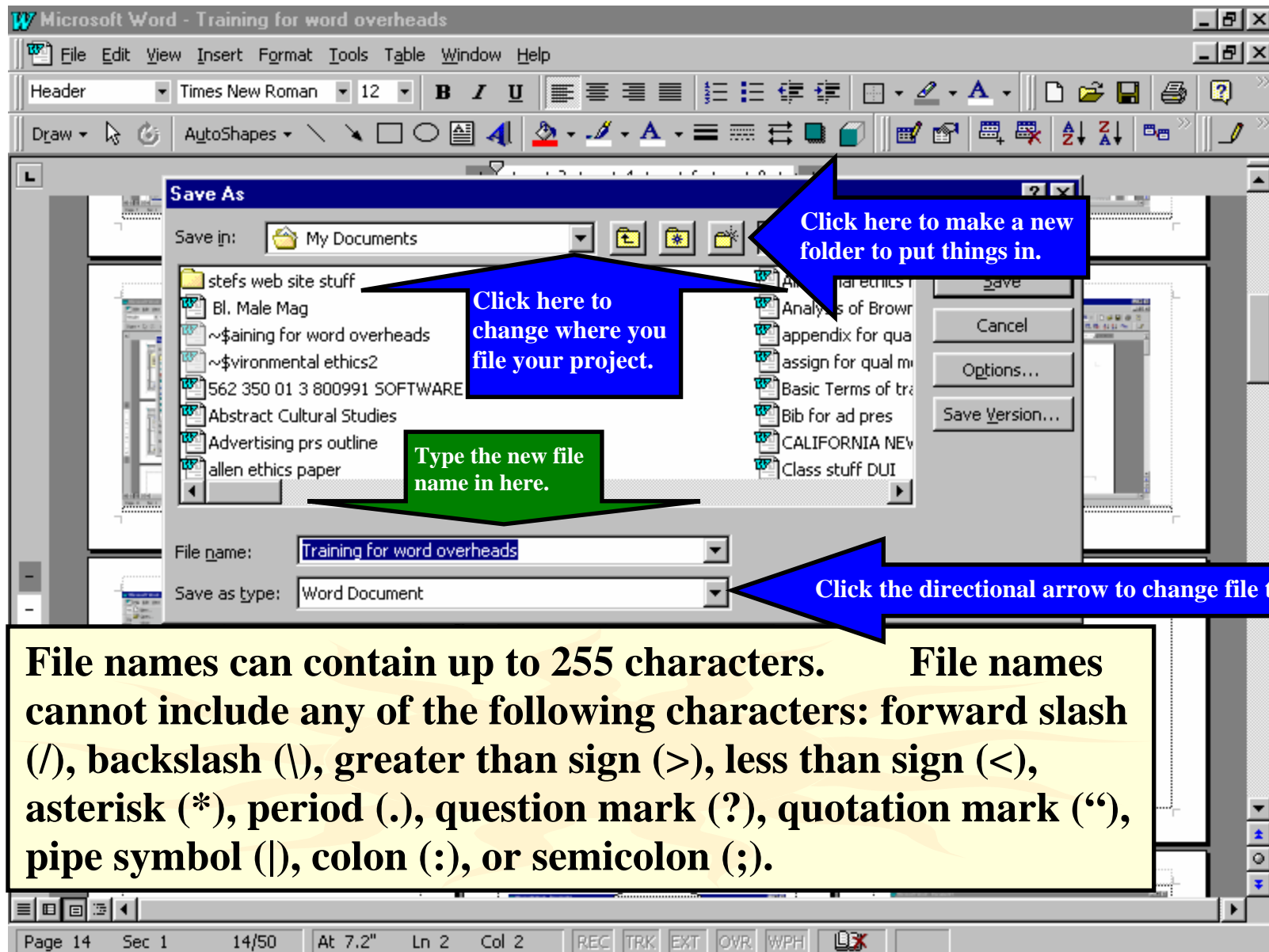


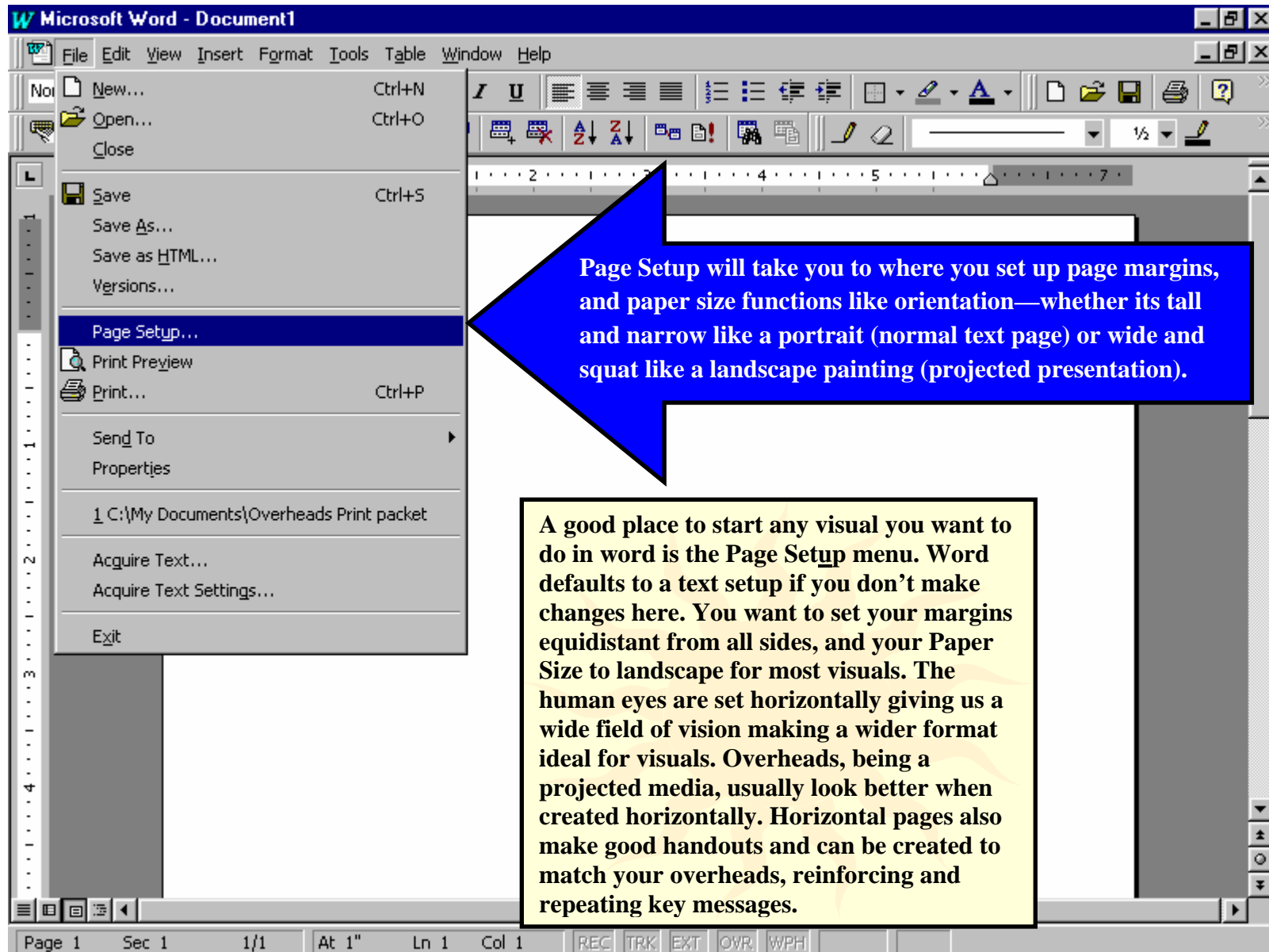
This is the file
"Overheads
Print packet"

Scroll bar
(Click, hold and drag
down to see other
parts of this
document)









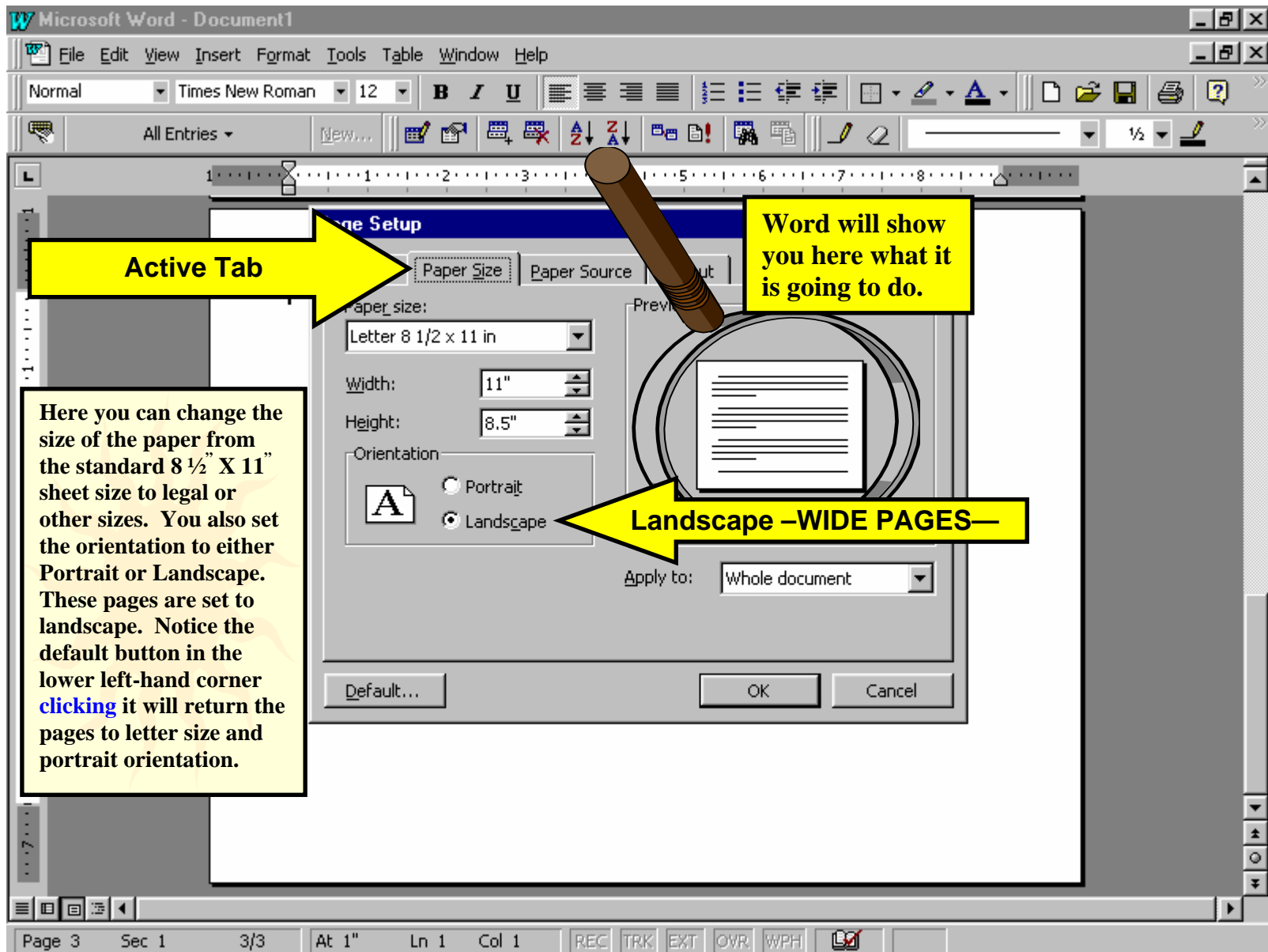
The image shows a screenshot of the Microsoft Word application window. The title bar reads "Microsoft Word - Document1". The menu bar includes "File", "Edit", "View", "Insert", "Format", "Tools", "Table", "Window", and "Help". The toolbar shows various icons for text formatting and editing. The "Page Setup" dialog box is open, with the "Margins" tab selected and highlighted in blue. The "Margins" tab contains settings for Top, Bottom, Left, Right, Gutter, Header, and Footer, all set to 1 inch, except for Header and Footer which are set to 0.5 inches. The "Apply to" dropdown is set to "Whole document". A yellow arrow points to the "Margins" tab with the text "Active Tab". A blue arrow points to the other tabs (Paper Size, Paper Source, Layout) with the text "Page Setup Tabs (Click an underlying tab to swap active tabs)". A yellow text box on the left contains instructions: "Notice the margins set for this project. They are all one inch from the edge of the paper. The Active Tab is highlighted and on top of the others. Notice the Preview of my page on the right side of the active window. You can also set your header and footer distance from the edges here. Hitting the Enter key here will accept these settings. You could also click the OK or the Cancel buttons in the lower right hand side of the Page Setup window." The status bar at the bottom shows "Page 2", "Sec 1", "2/2", "At 1\"", "Ln 1", "Col 1", and various status indicators.

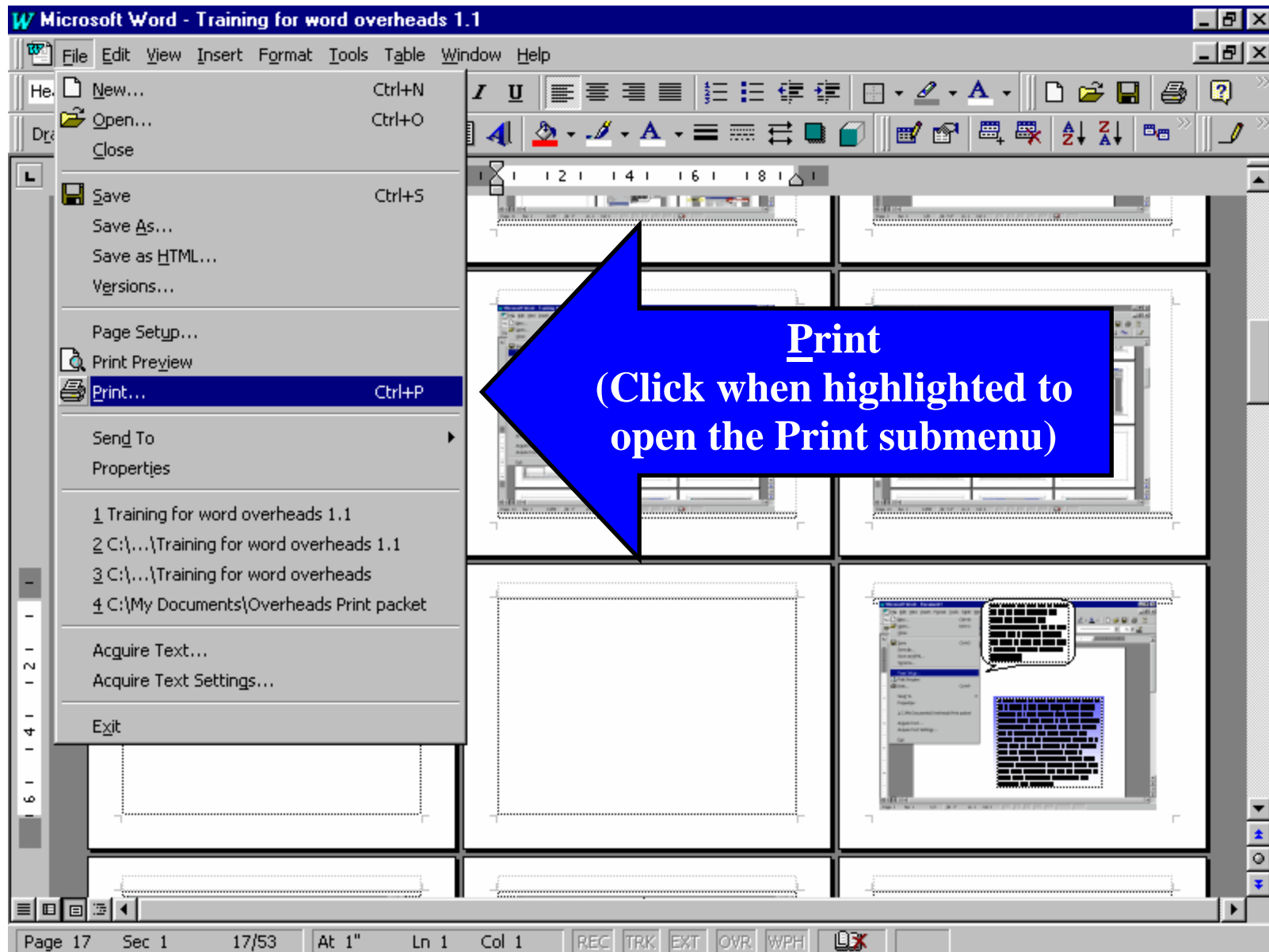
Active Tab

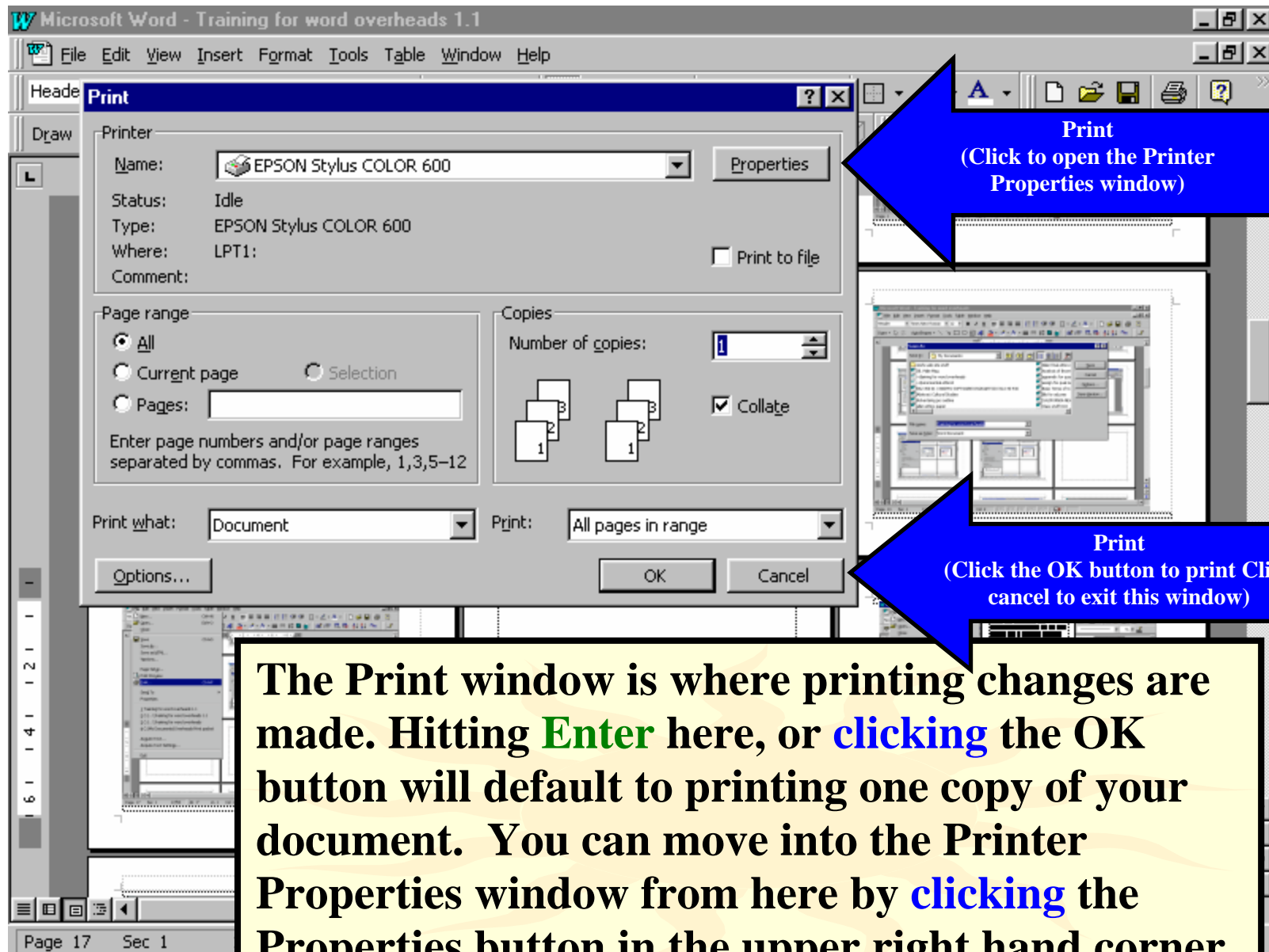
Page Setup Tabs
(Click an underlying tab to swap active tabs)

Notice the margins set for this project. They are all one inch from the edge of the paper. The Active Tab is highlighted and on top of the others. Notice the Preview of my page on the right side of the active window. You can also set your header and footer distance from the edges here. Hitting the Enter key here will accept these settings. You could also click the OK or the Cancel buttons in the lower right hand side of the Page Setup window.

Page 2 Sec 1 2/2 At 1" Ln 1 Col 1 REC TRK EXT OVR WPH []



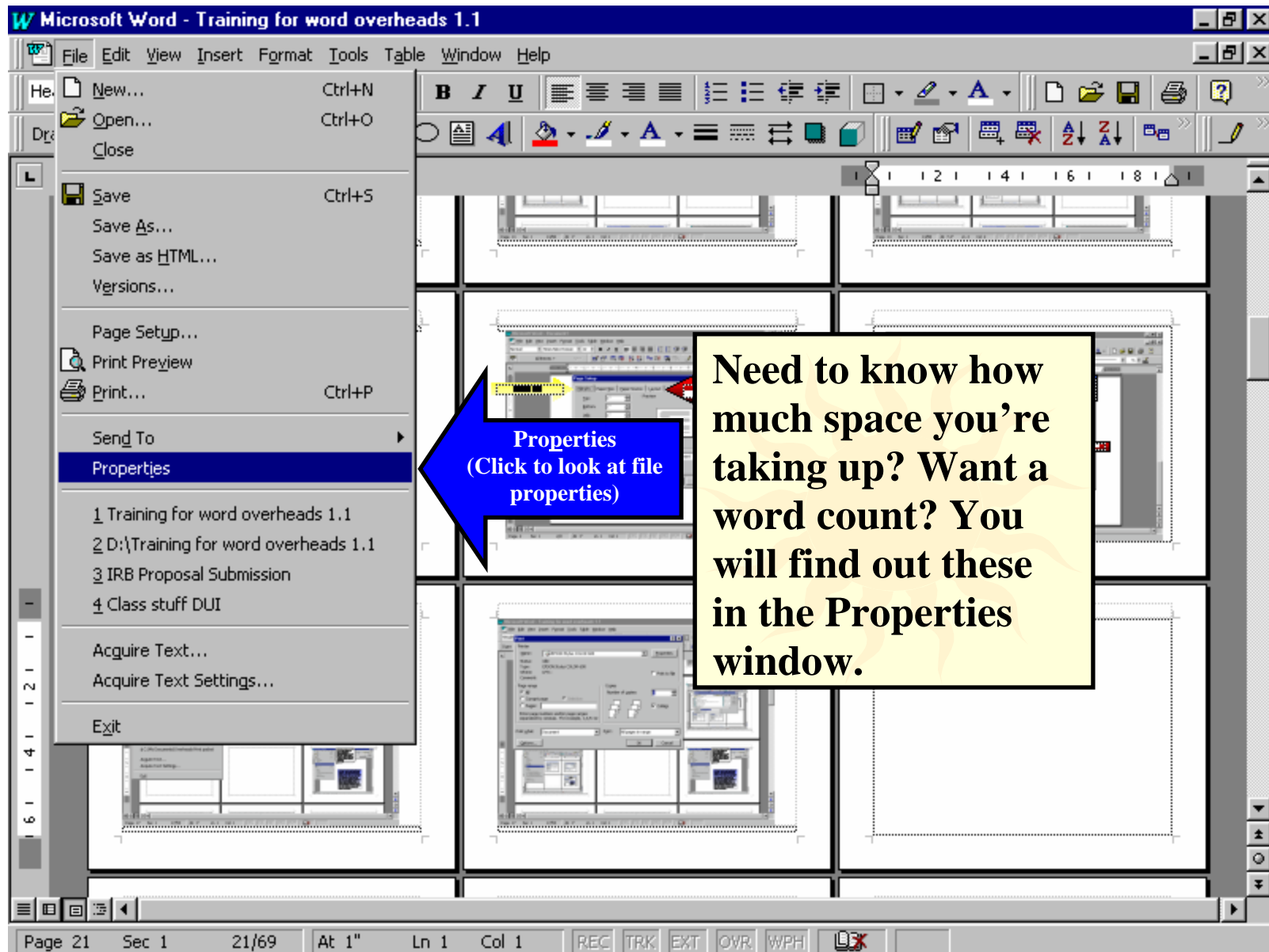


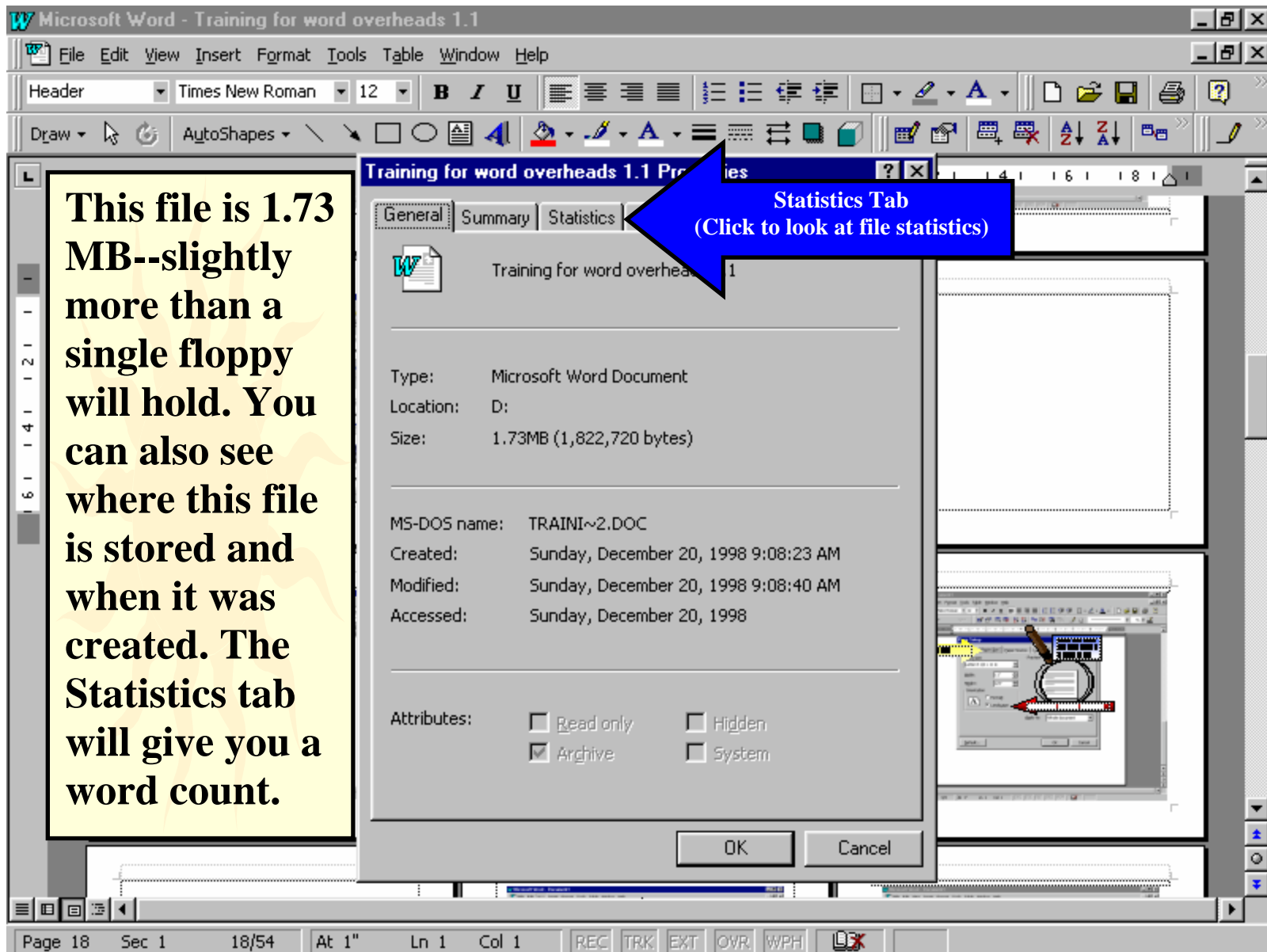


Print
(Click to open the Printer Properties window)

Print
(Click the OK button to print Click cancel to exit this window)

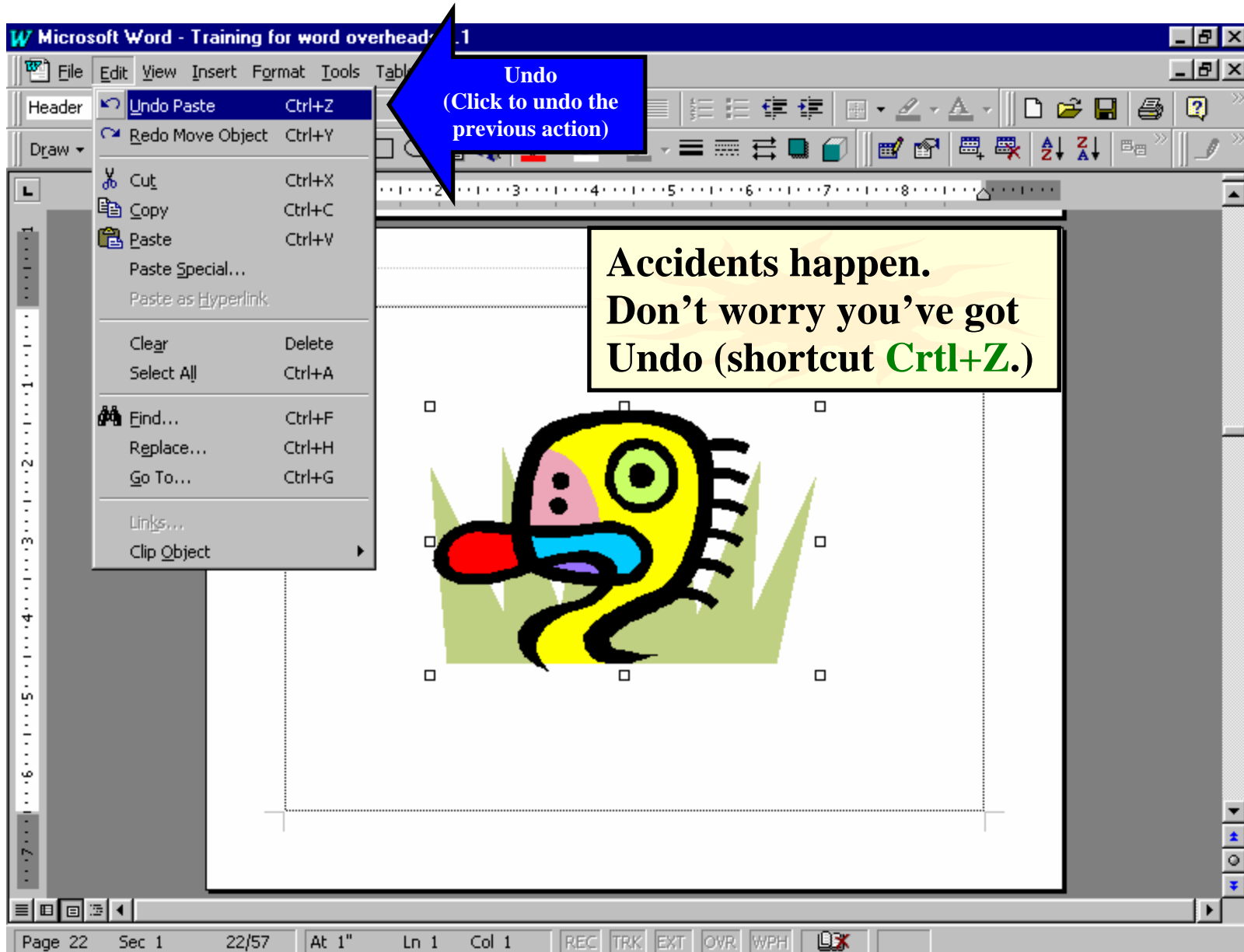
The Print window is where printing changes are made. Hitting **Enter** here, or **clicking** the OK button will default to printing one copy of your document. You can move into the Printer Properties window from here by **clicking** the Properties button in the upper right hand corner.

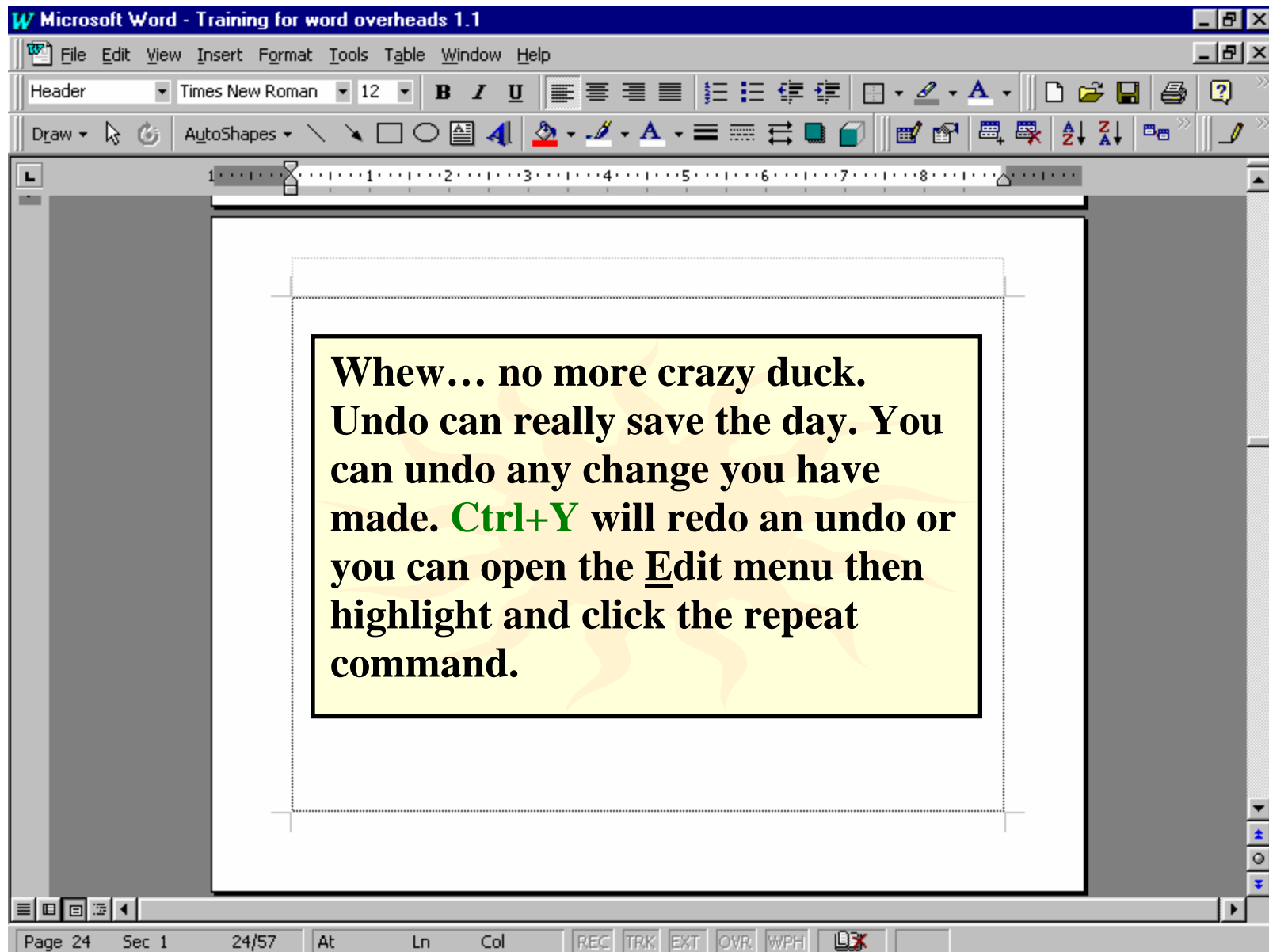


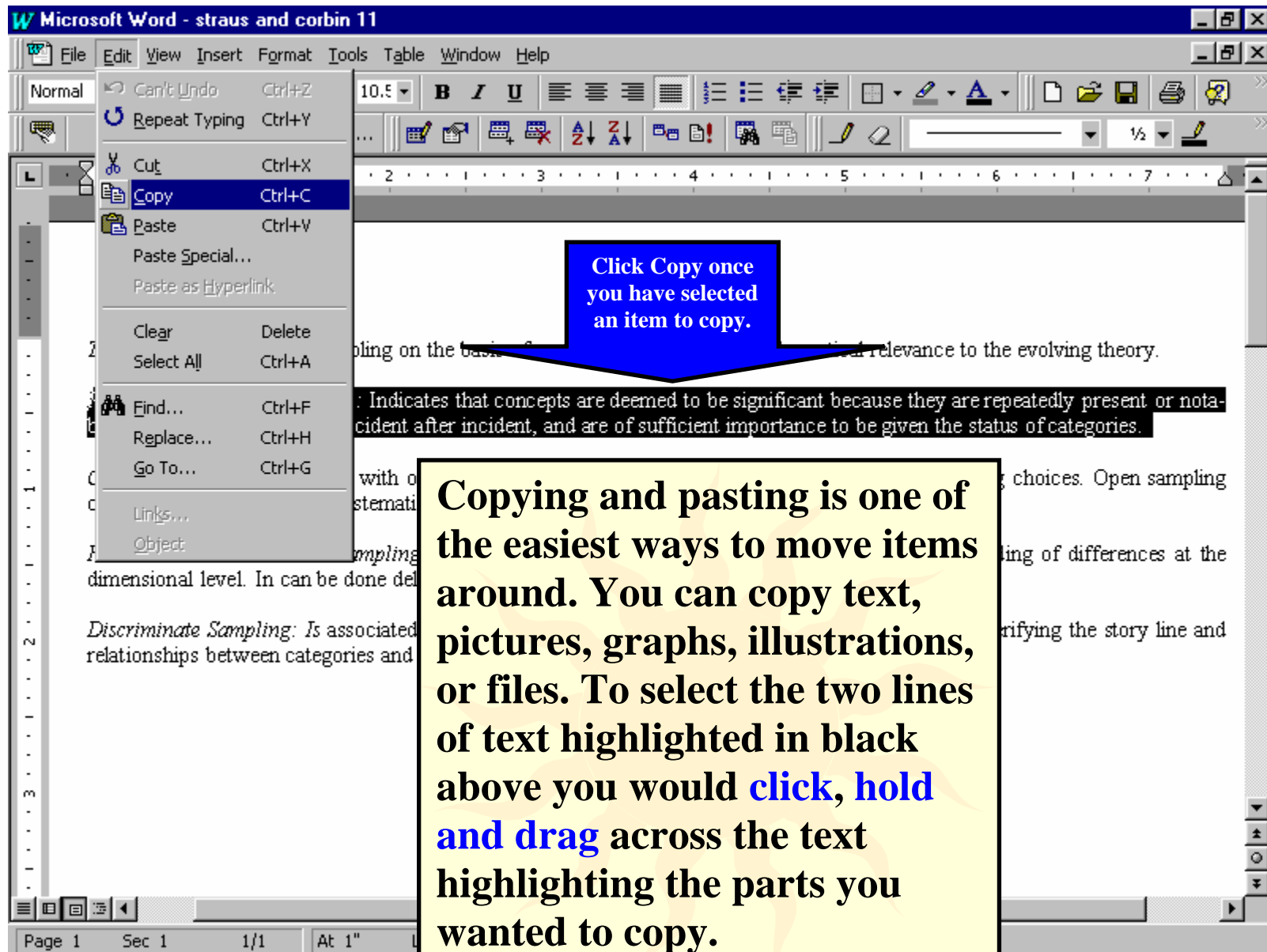


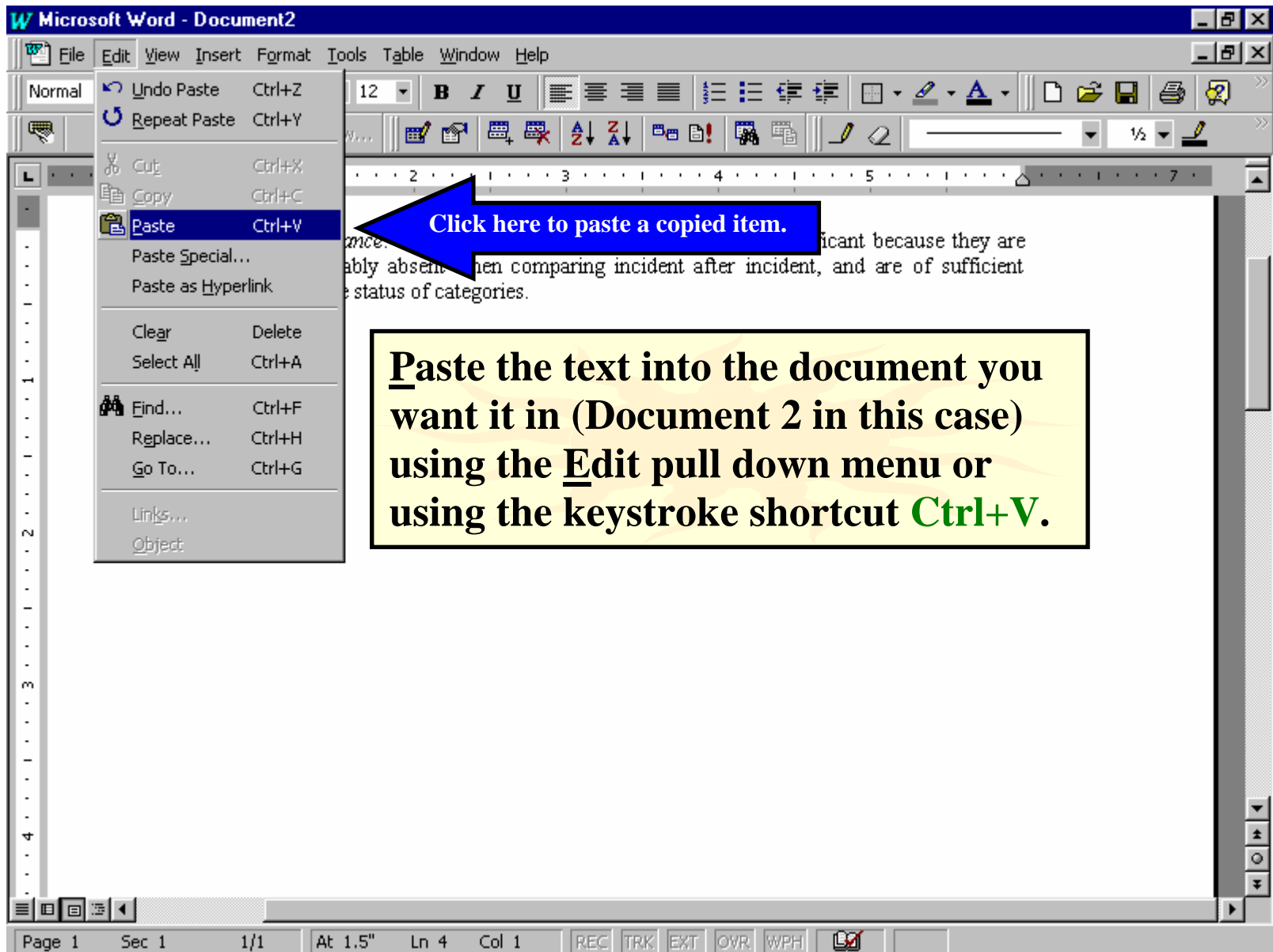
What Is That?

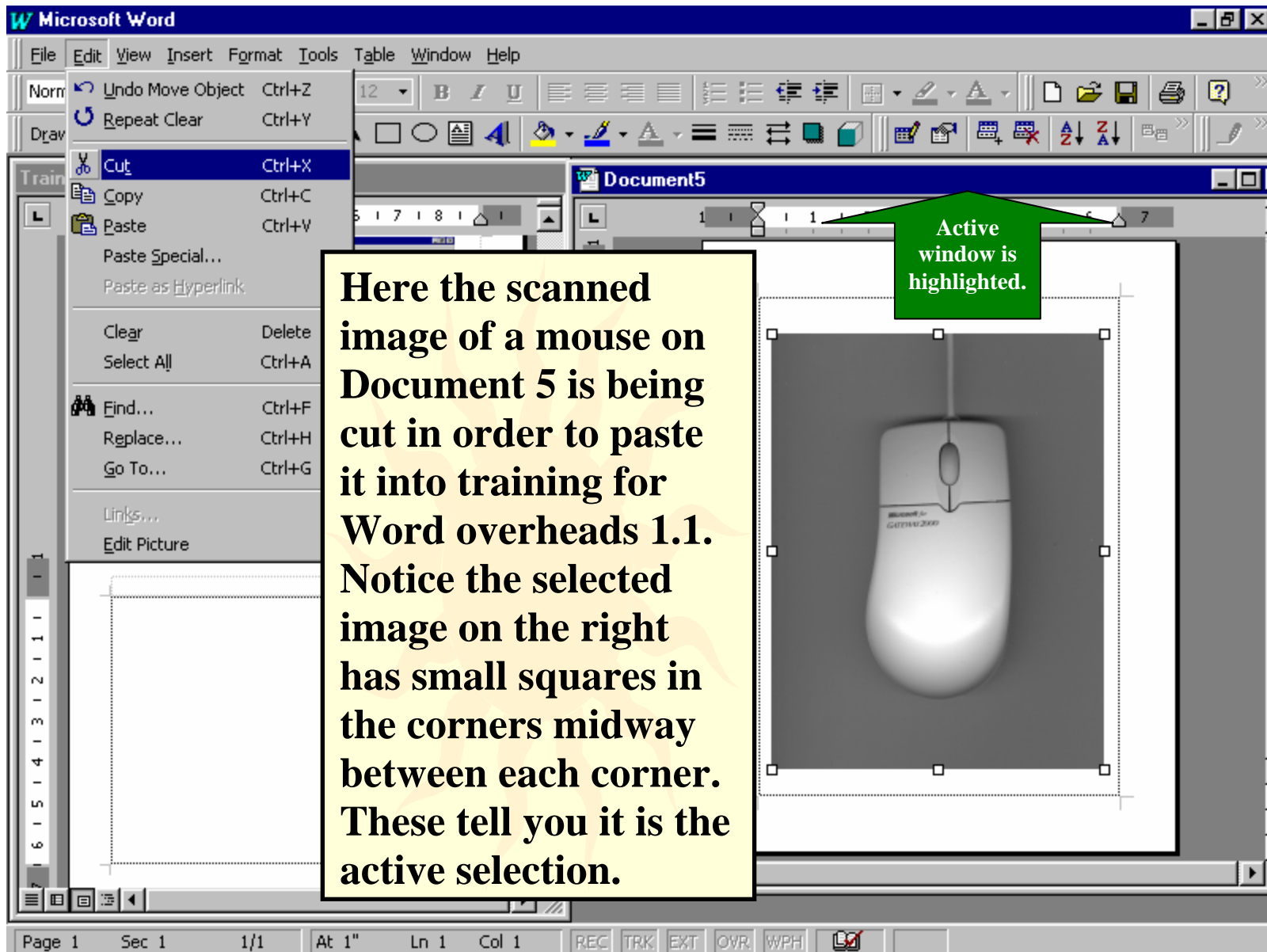


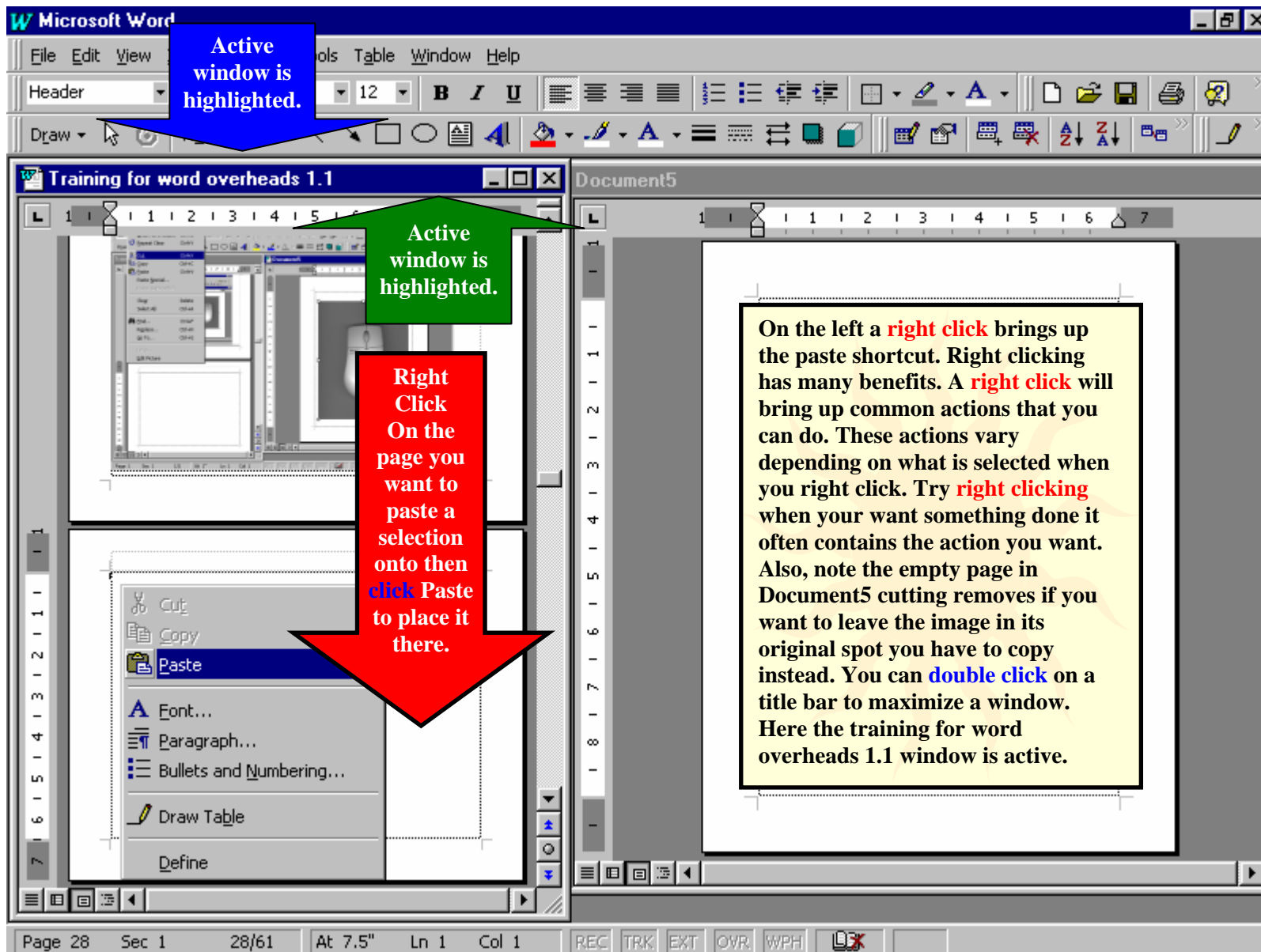


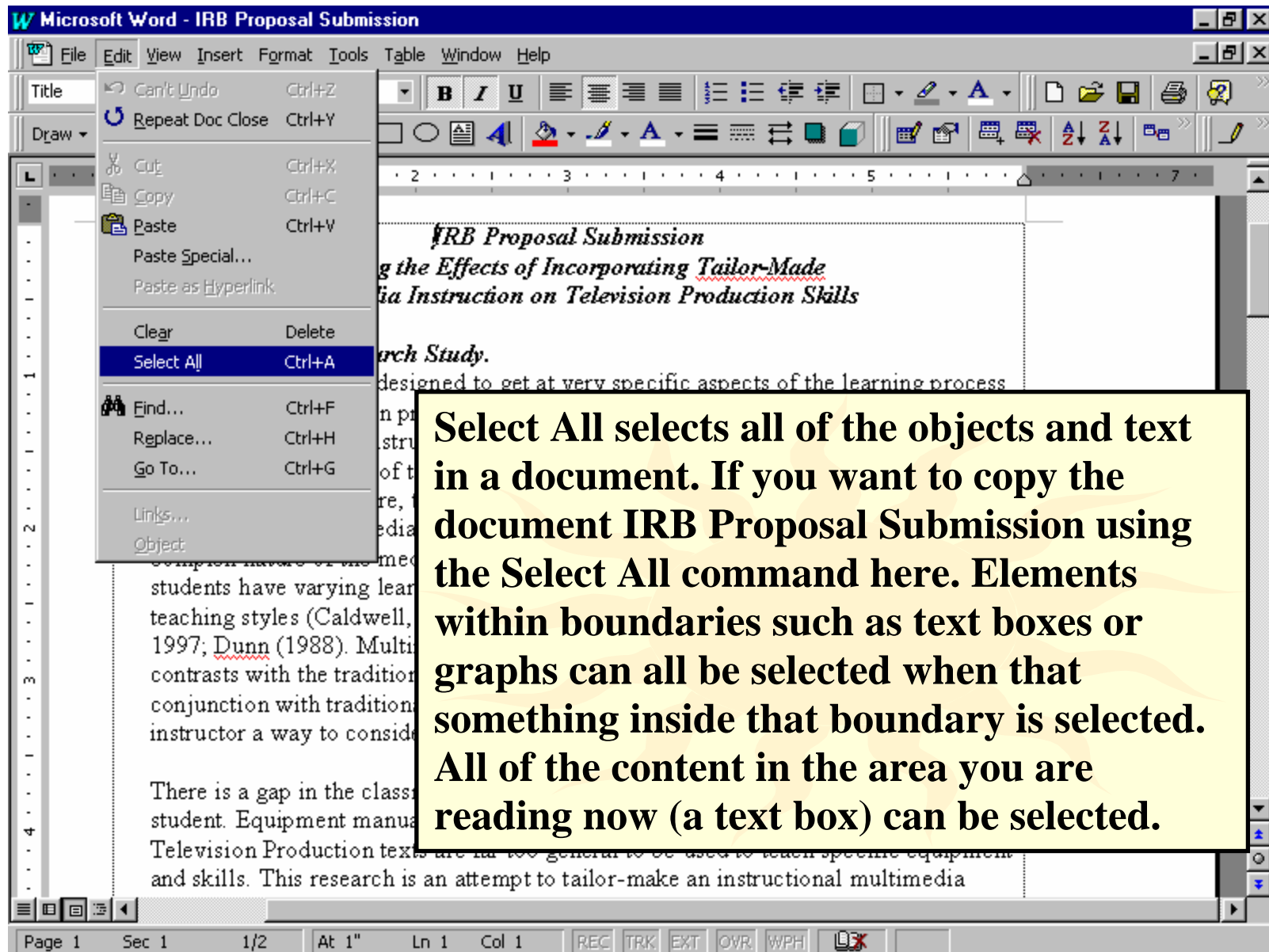


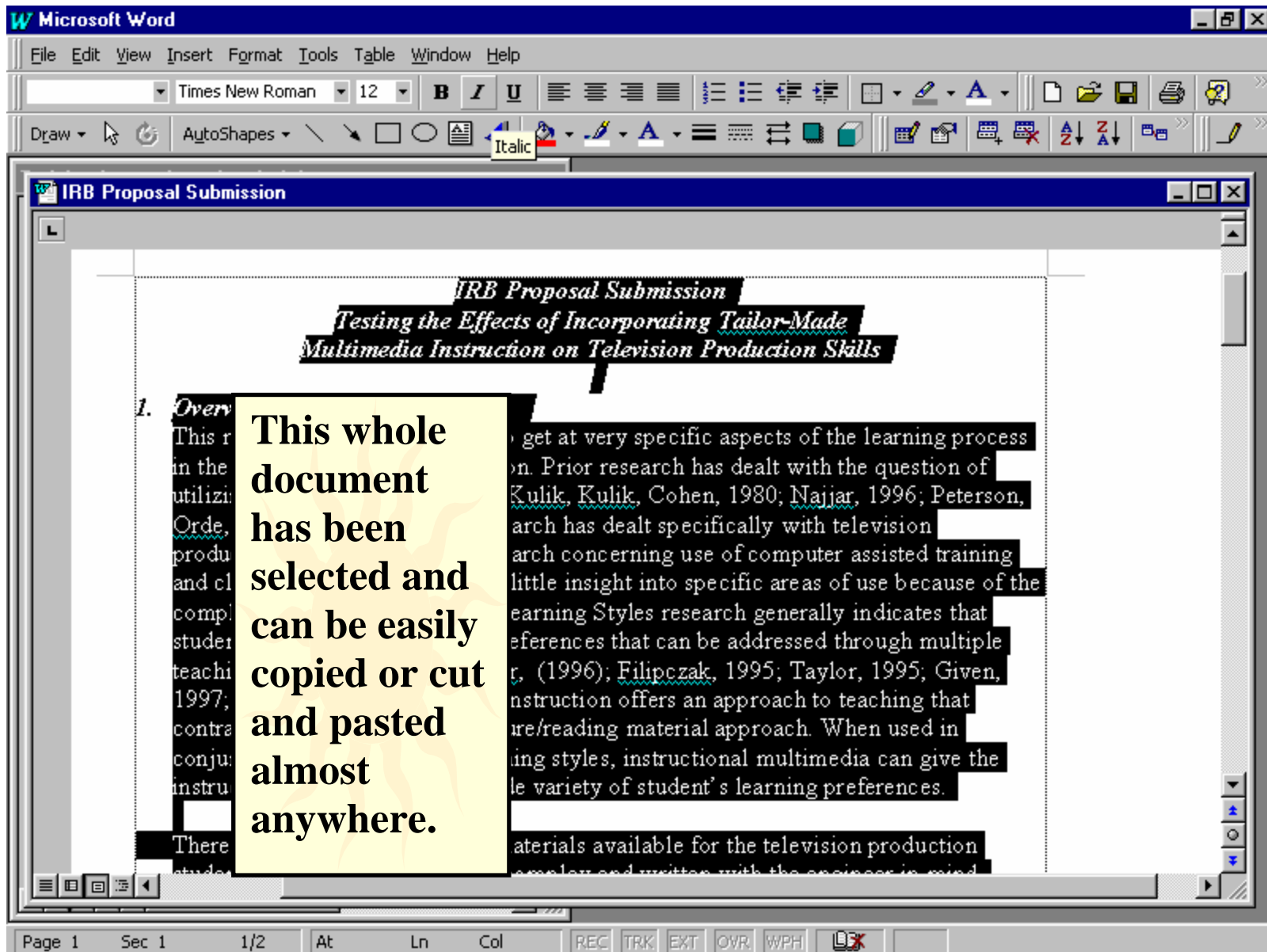


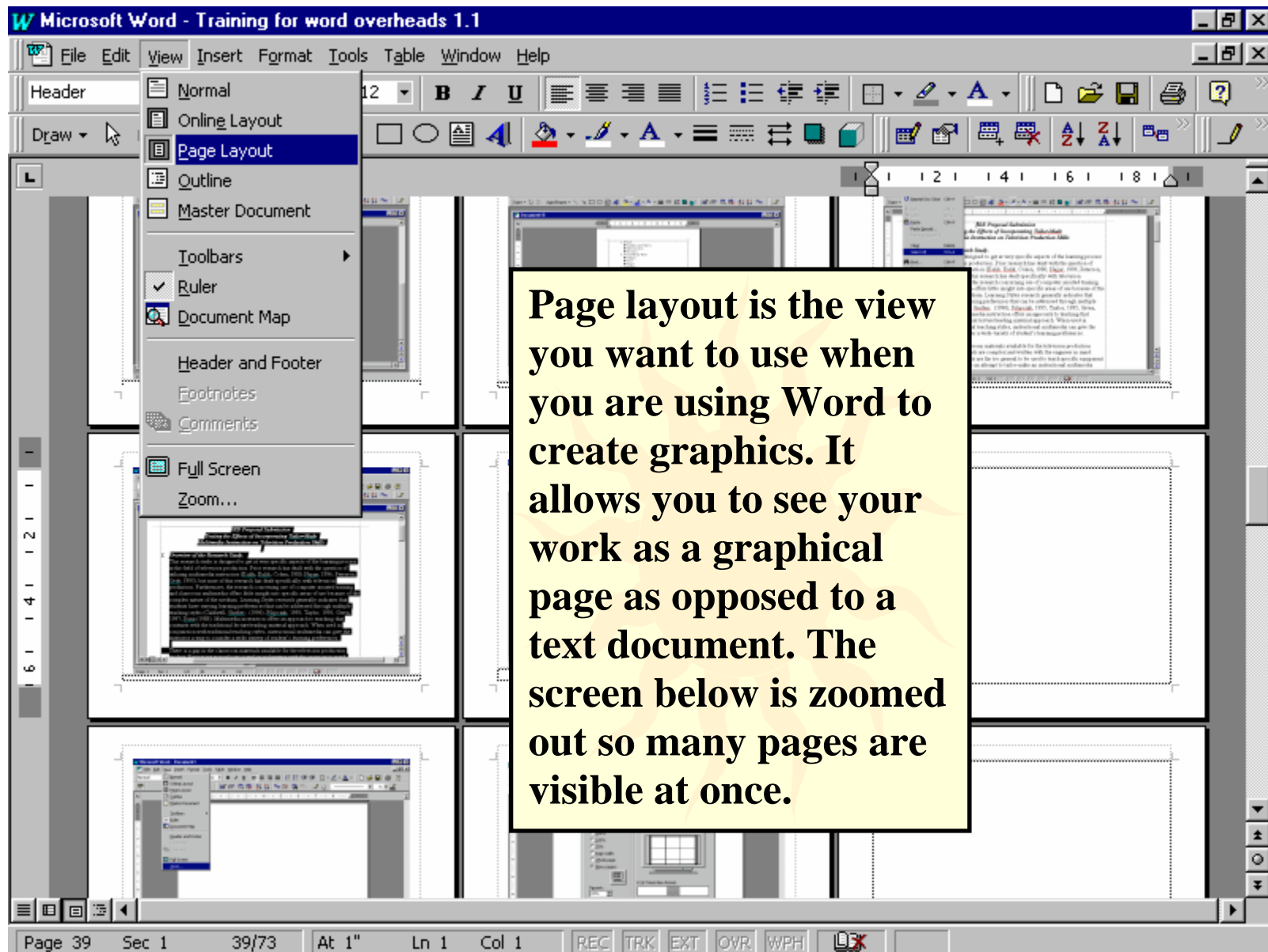


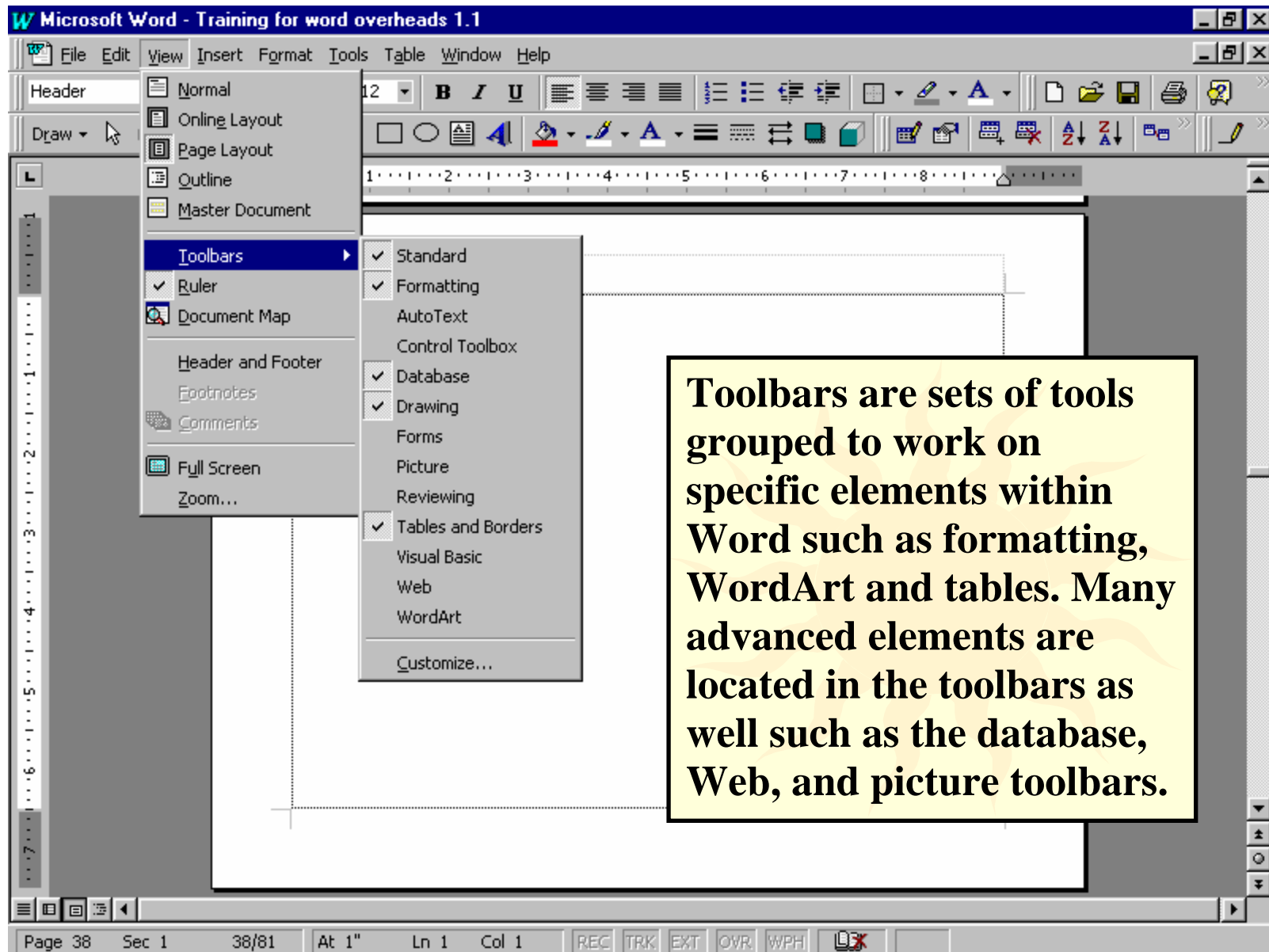


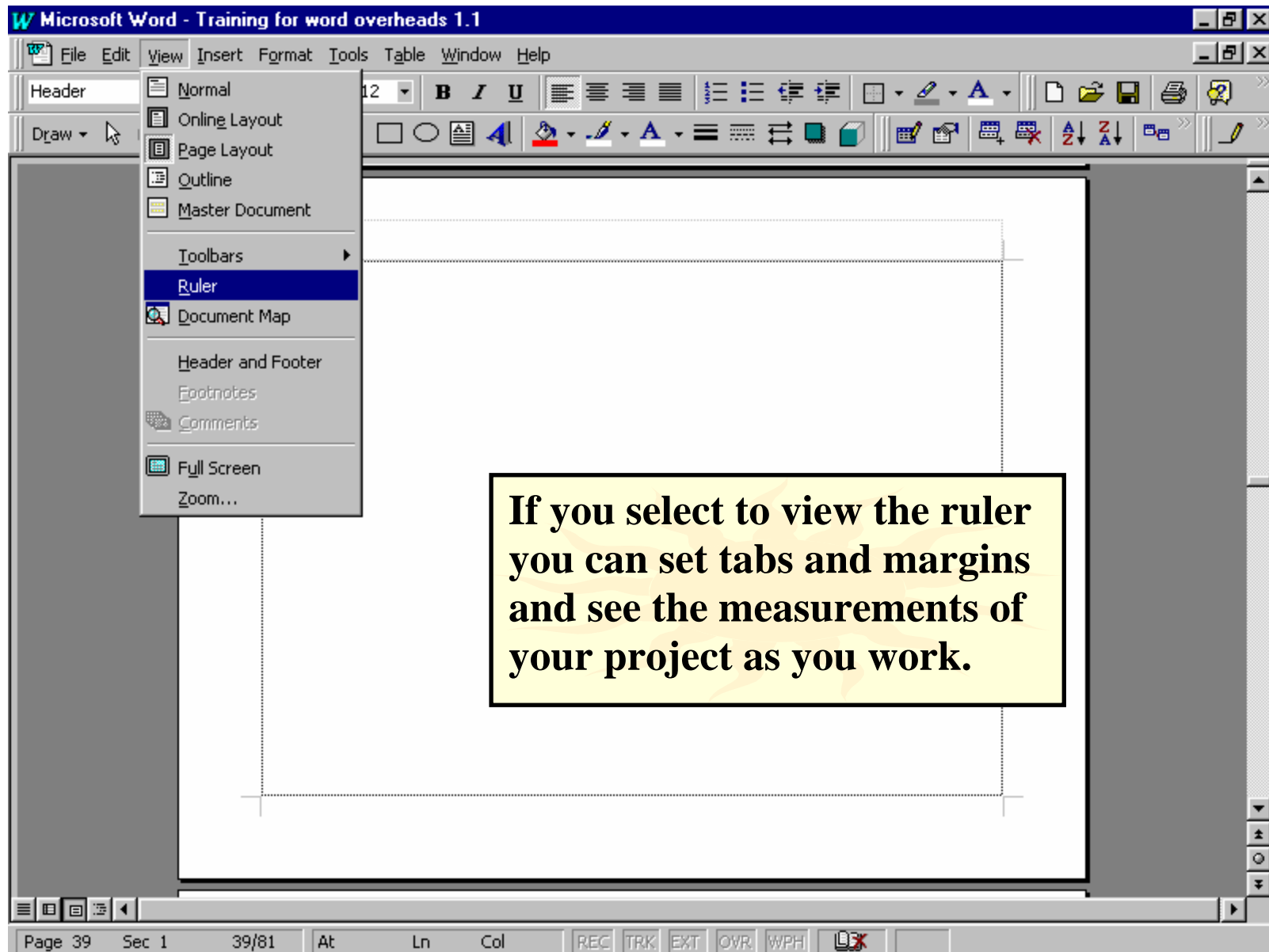


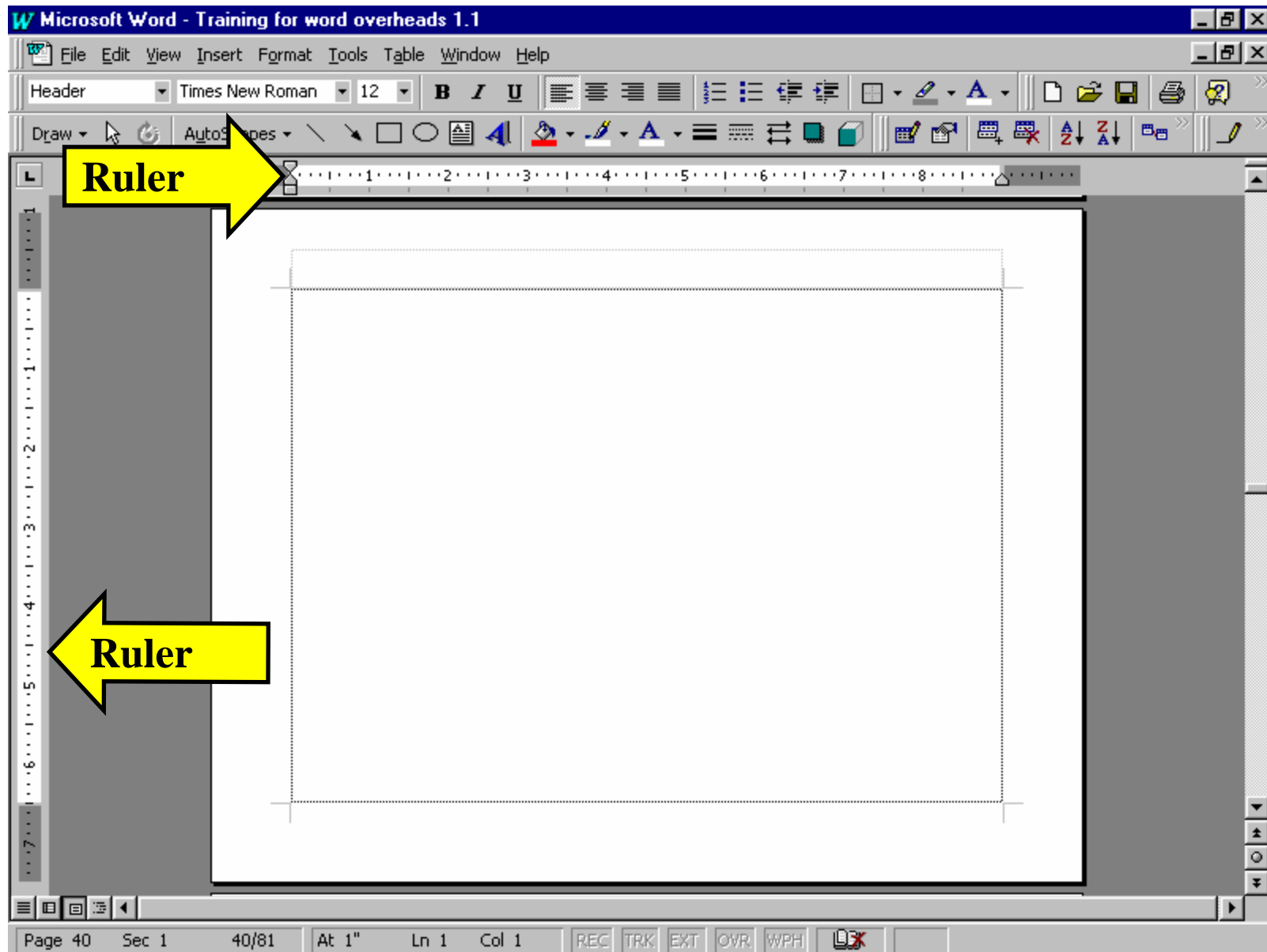


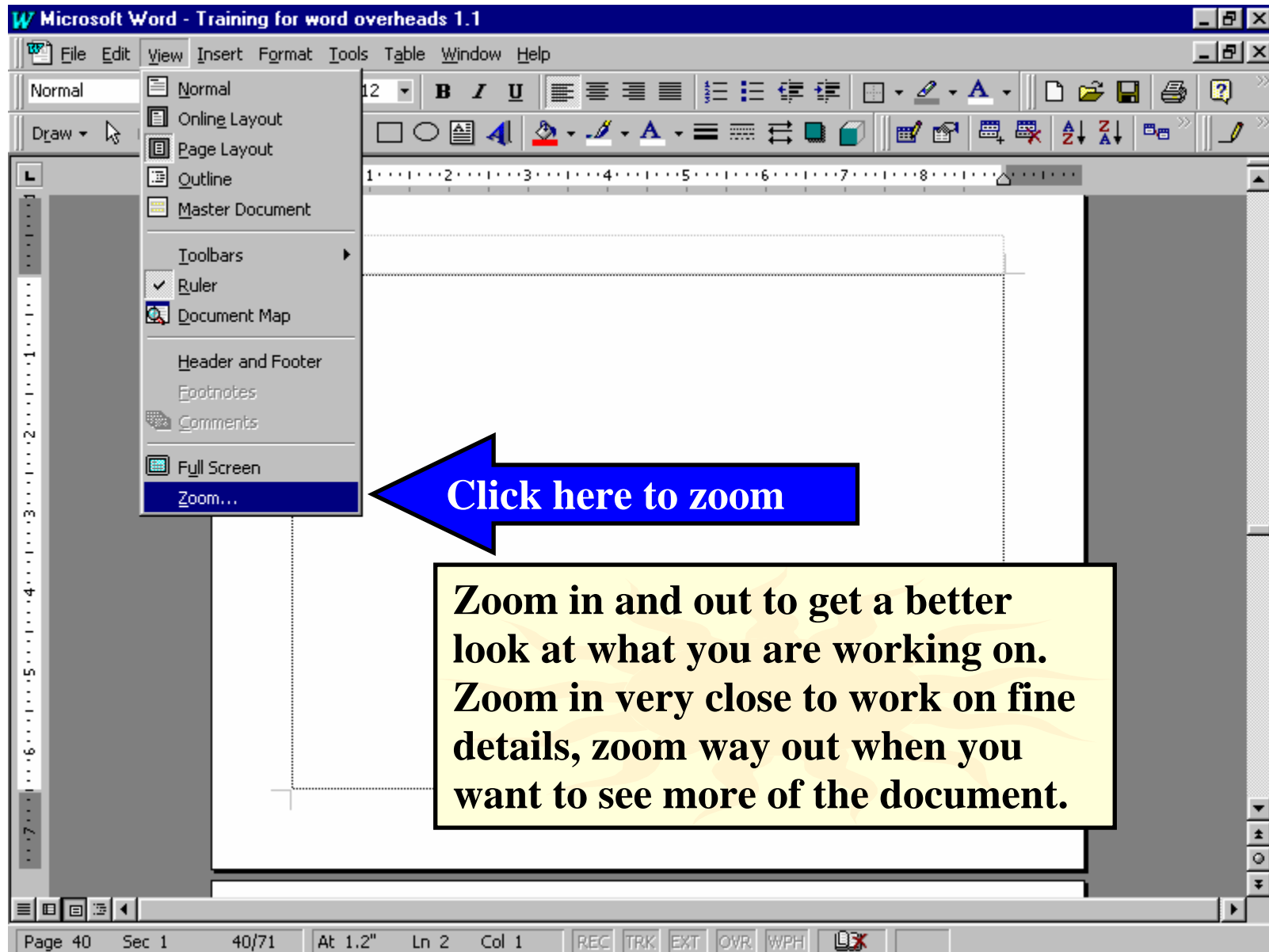


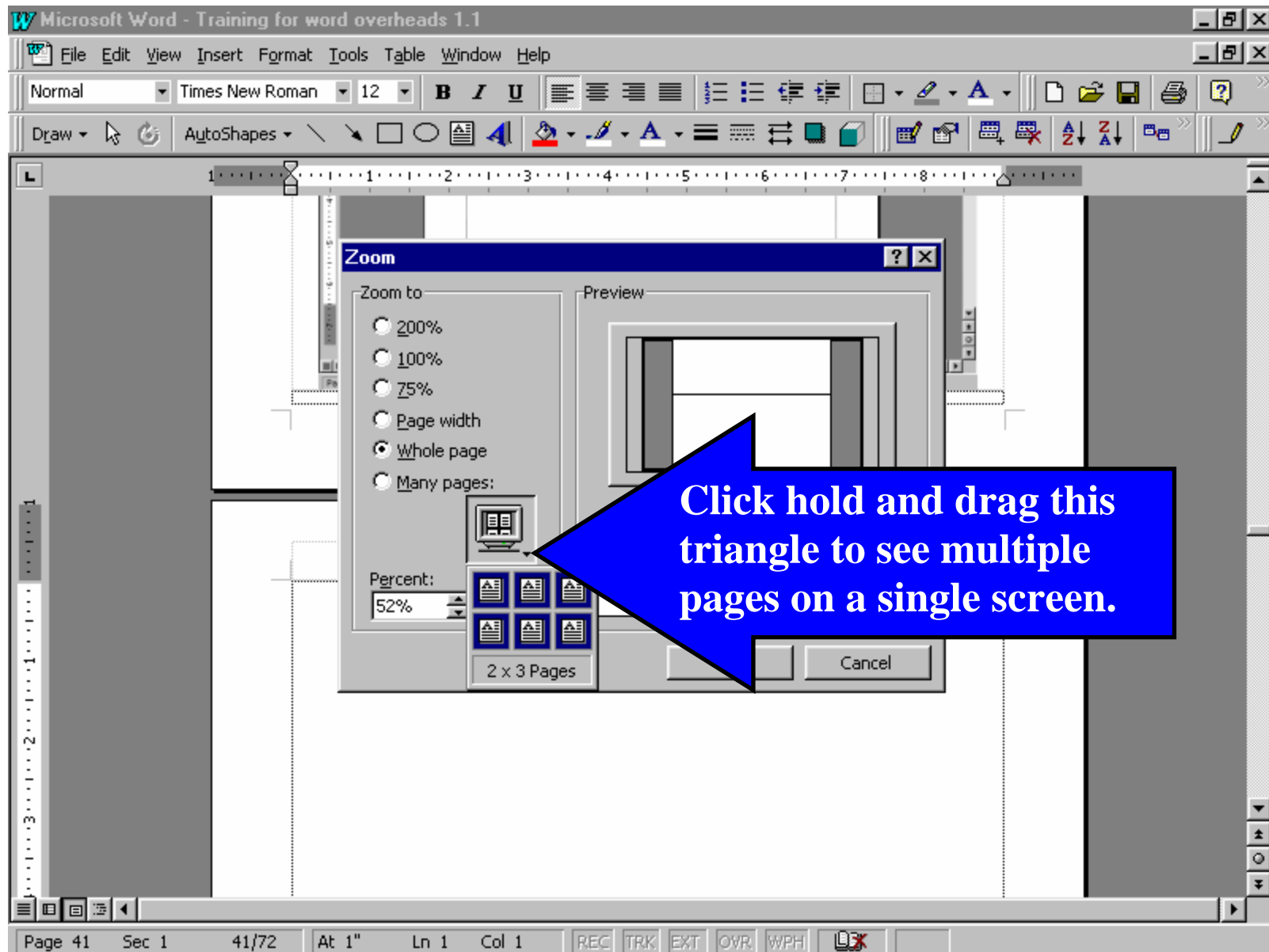


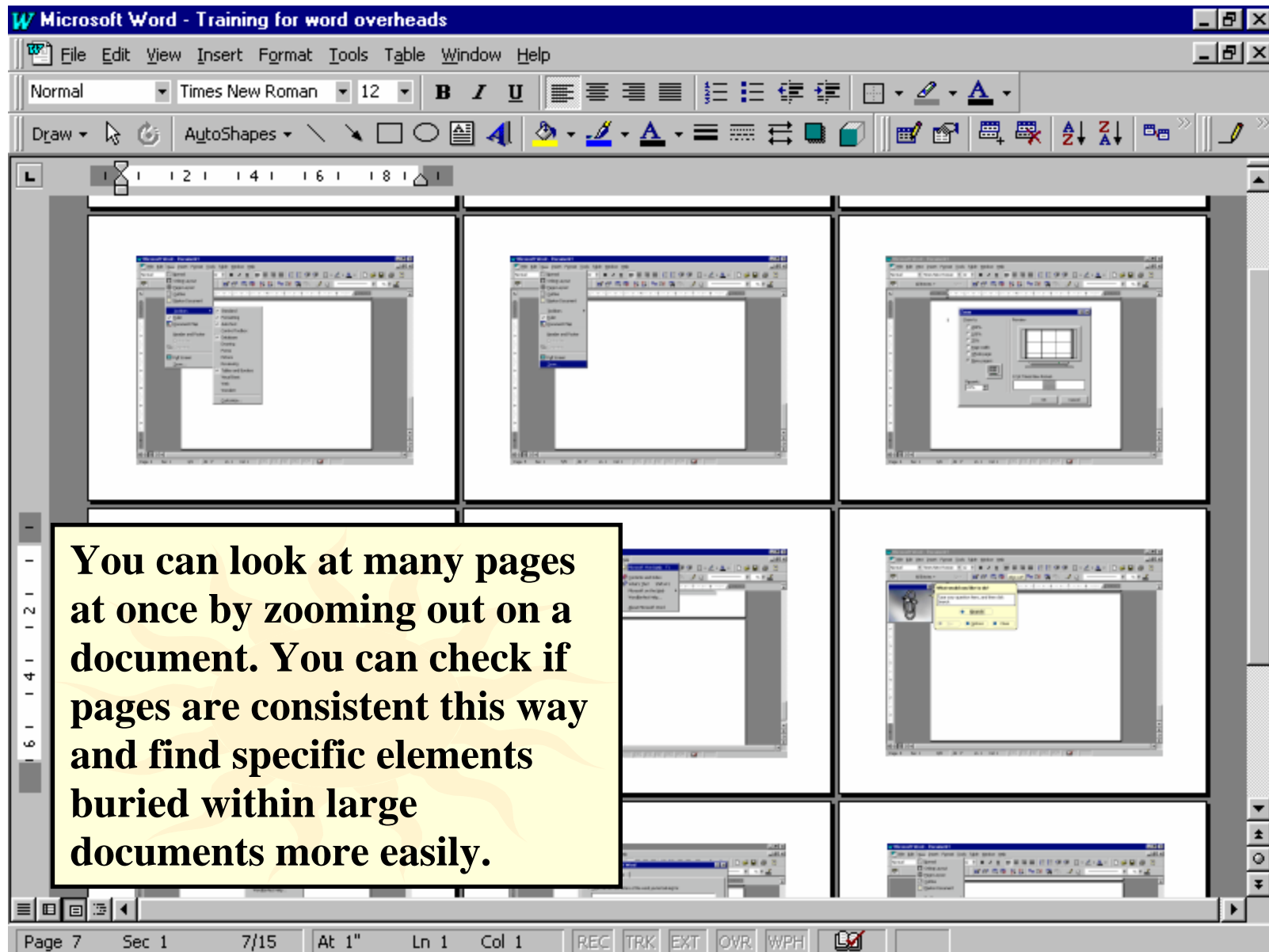


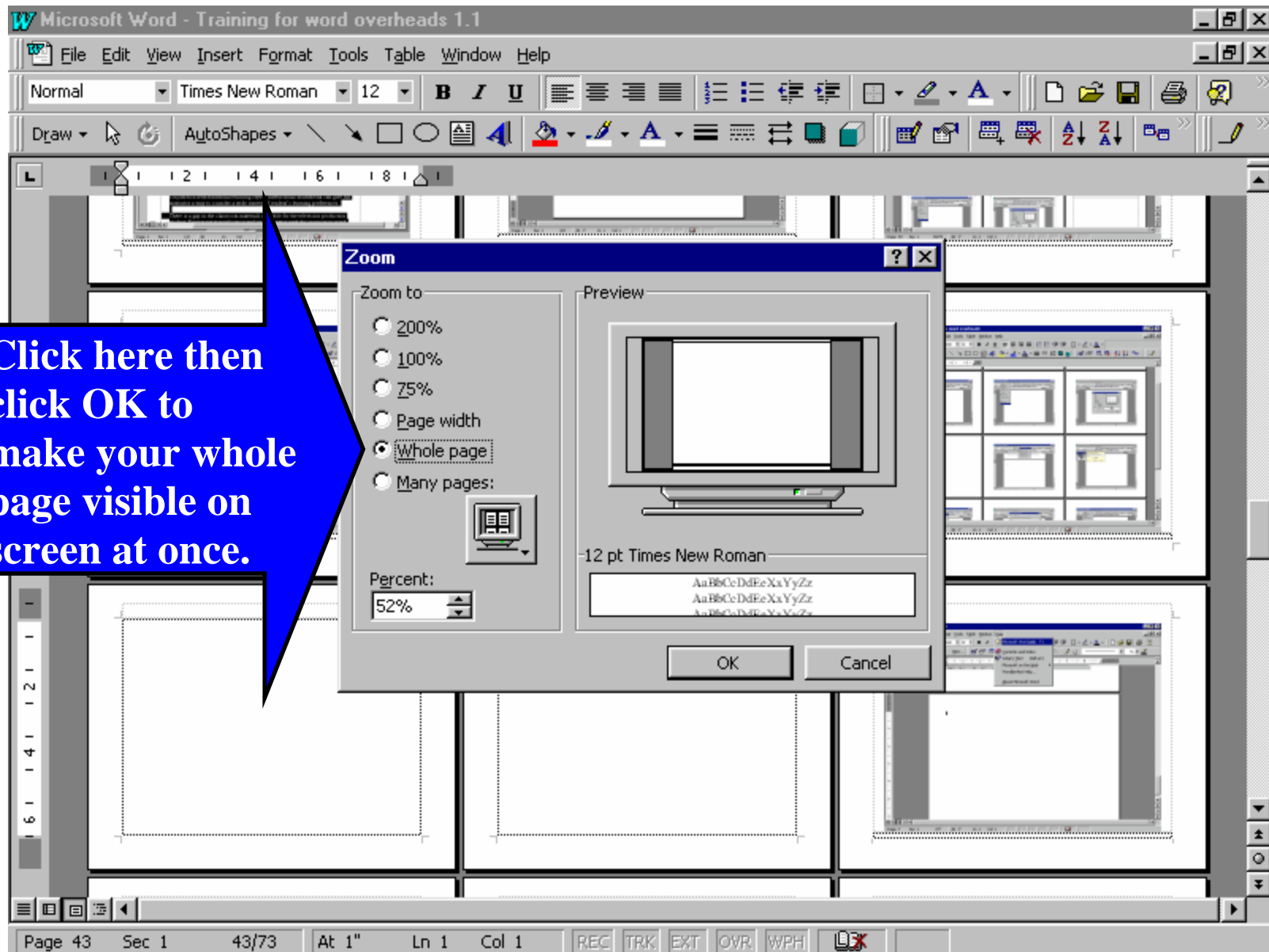




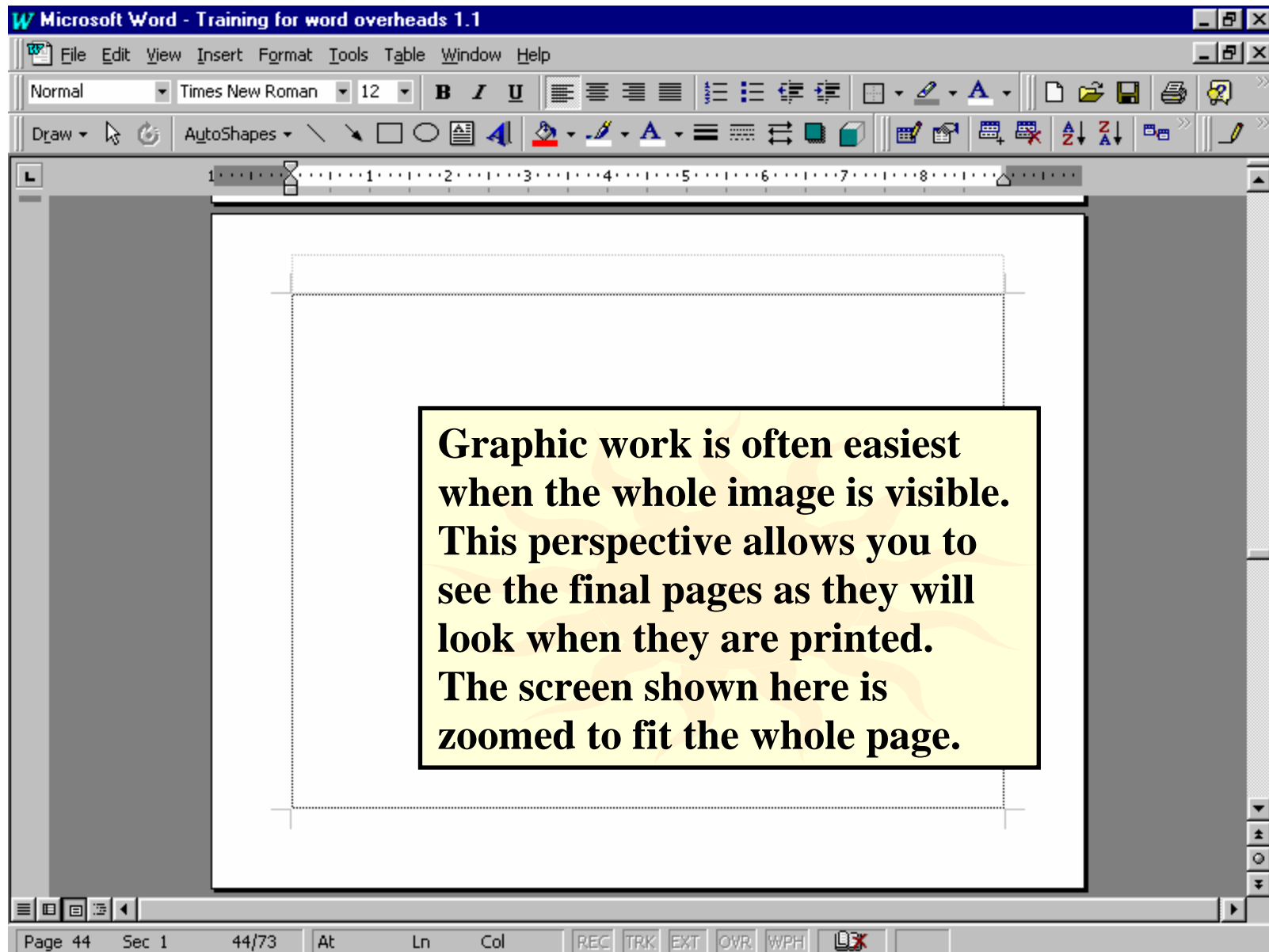


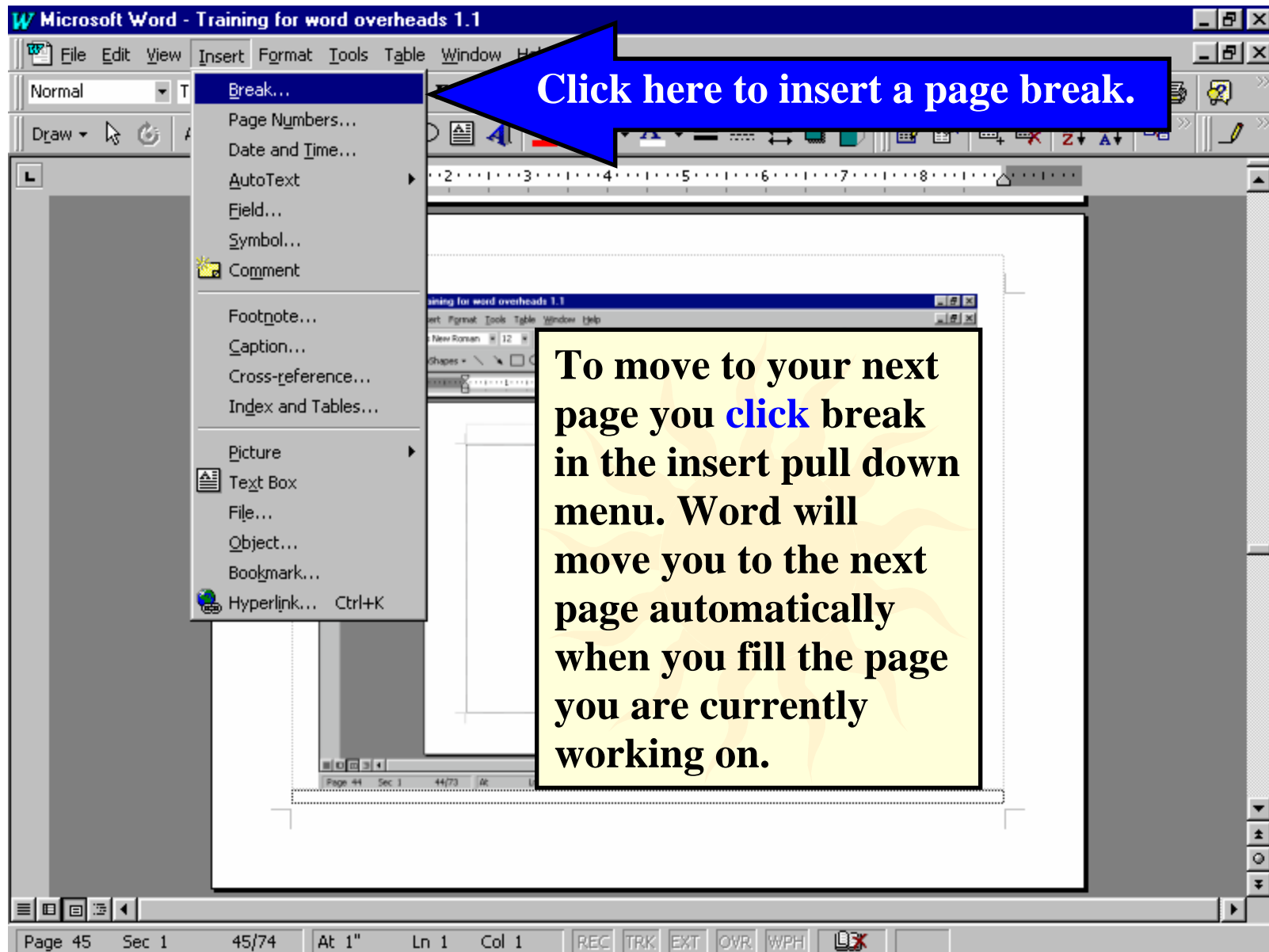


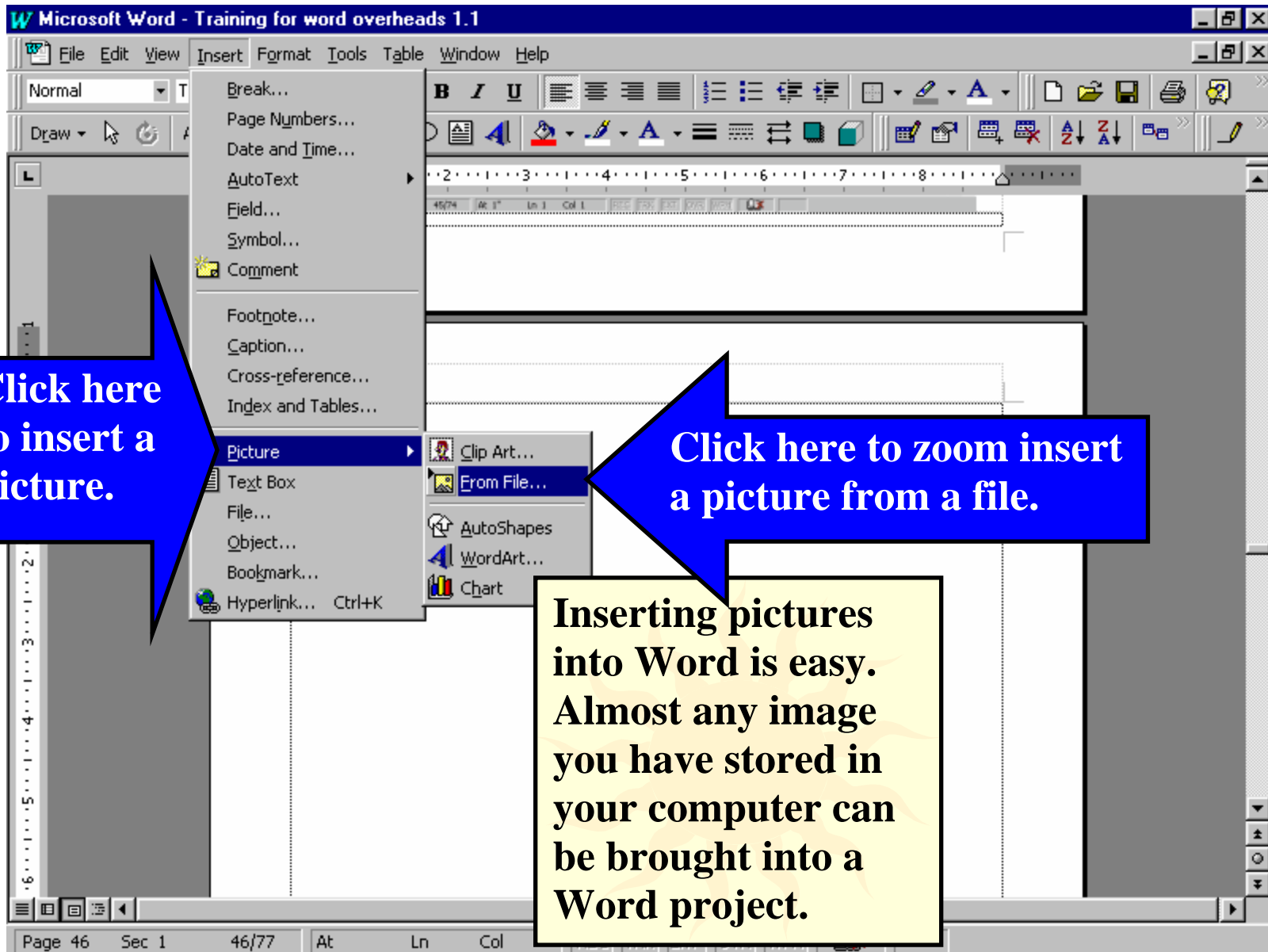




Click here then click OK to make your whole page visible on screen at once.



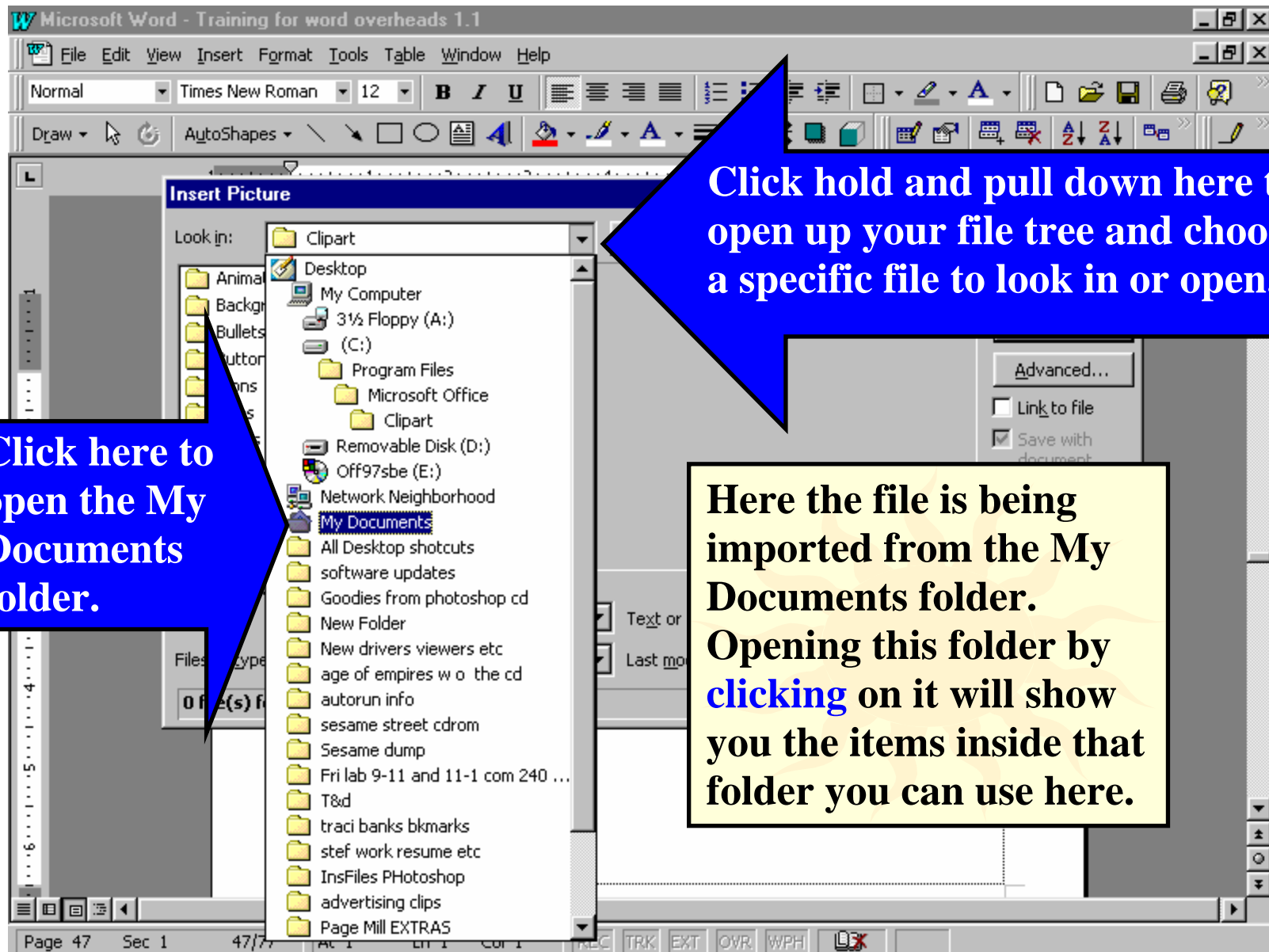




Click here to insert a picture.

Click here to zoom insert a picture from a file.

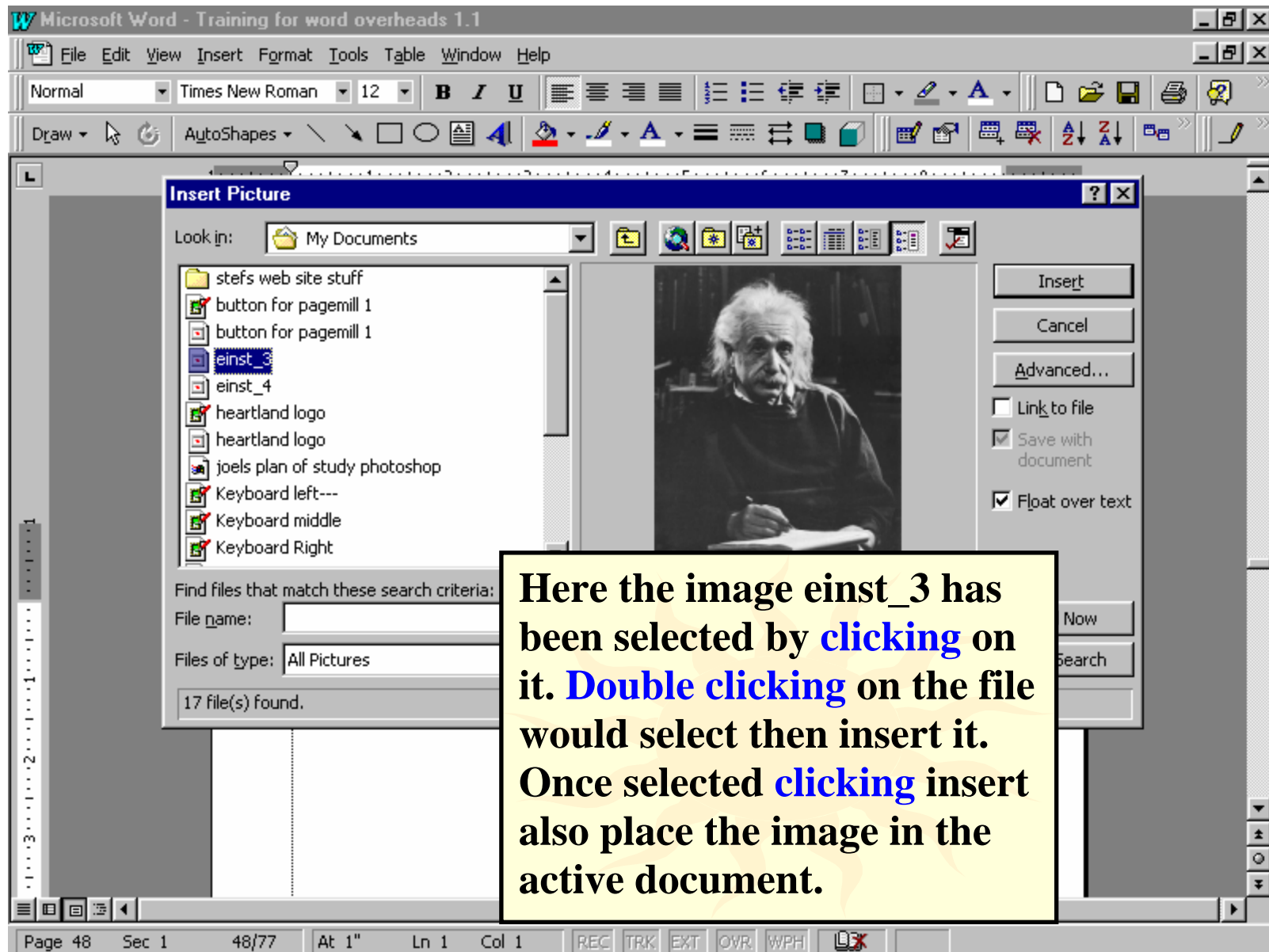
Inserting pictures into Word is easy. Almost any image you have stored in your computer can be brought into a Word project.

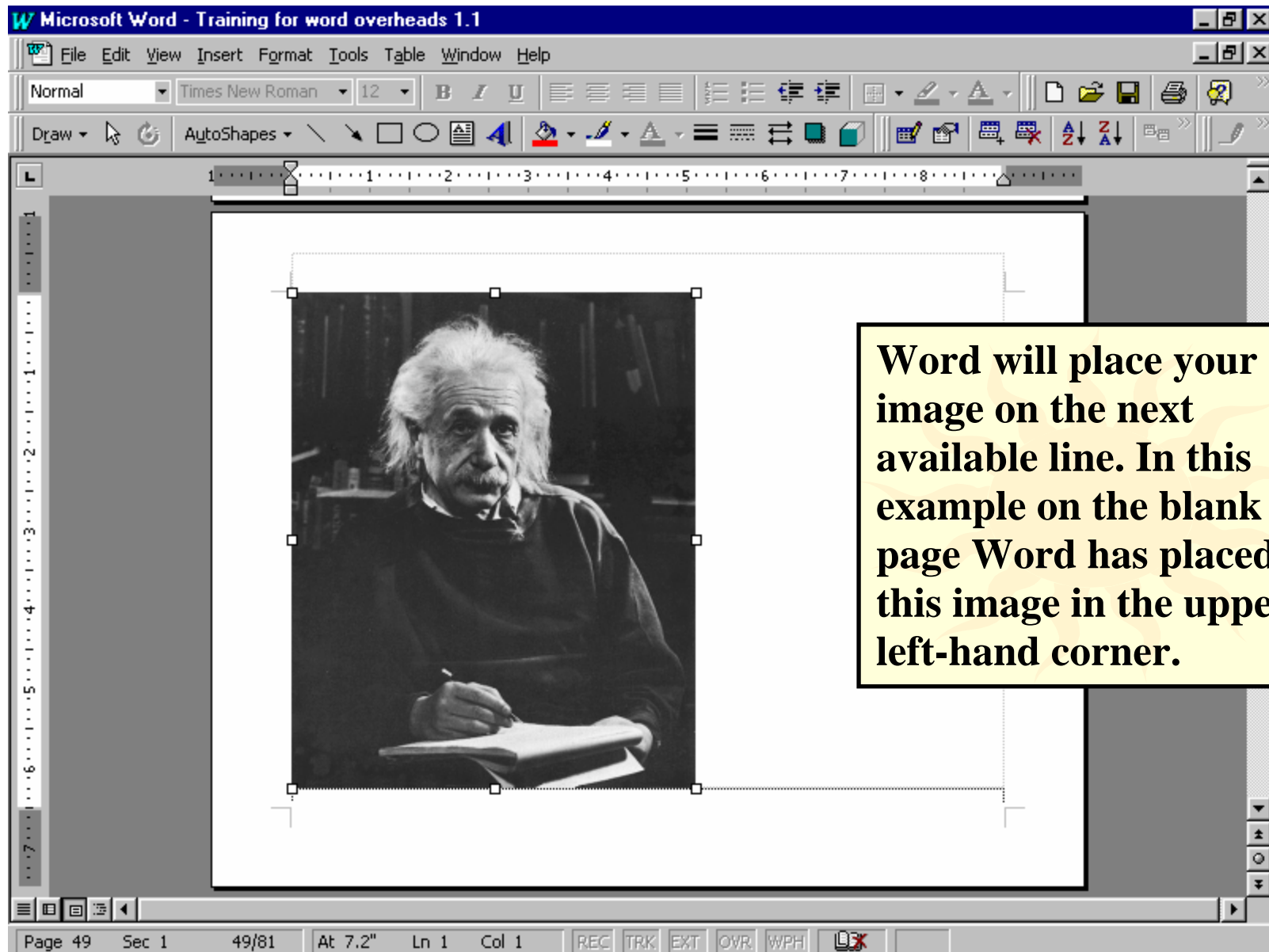


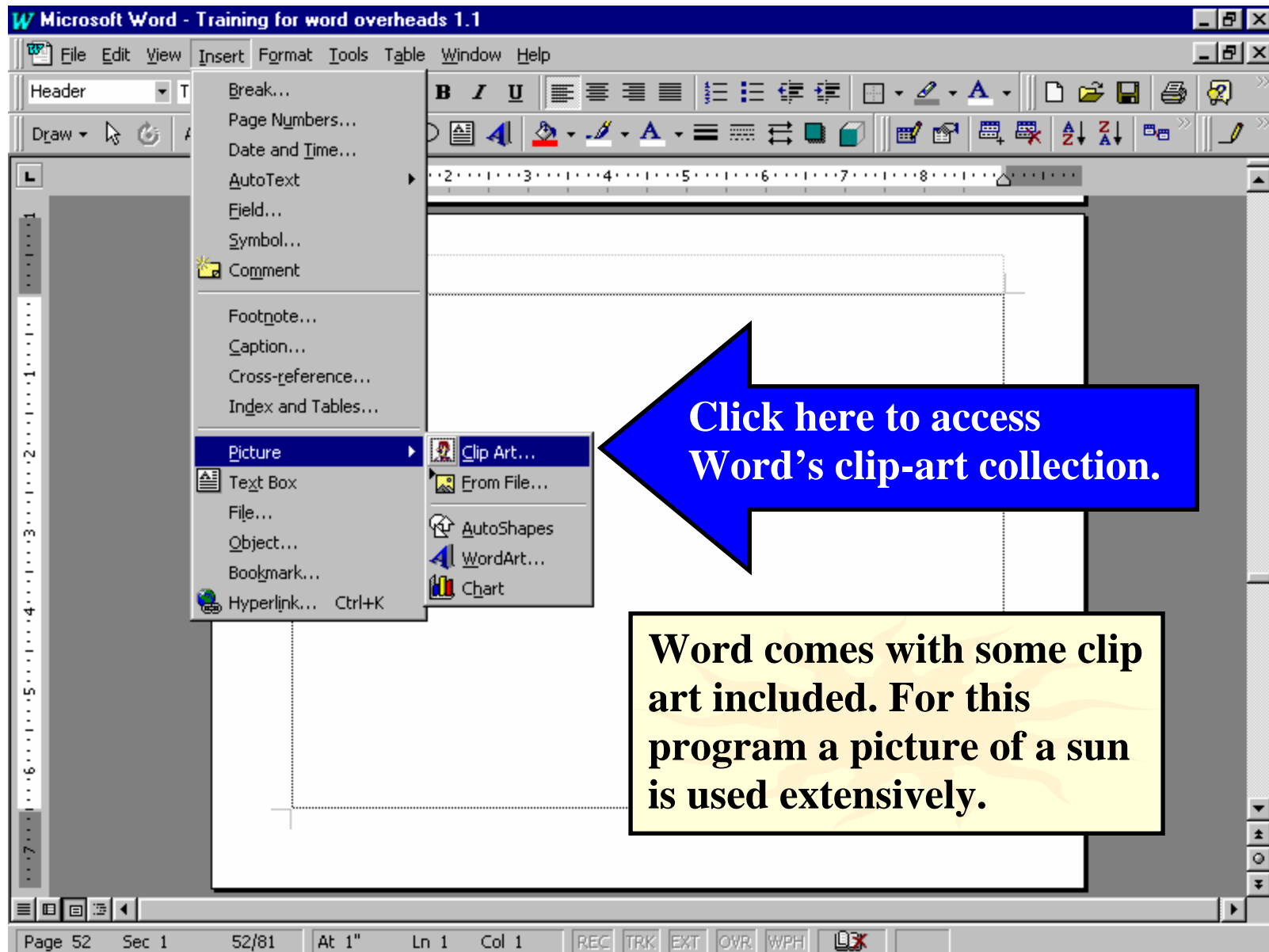
Click here to open the My Documents folder.

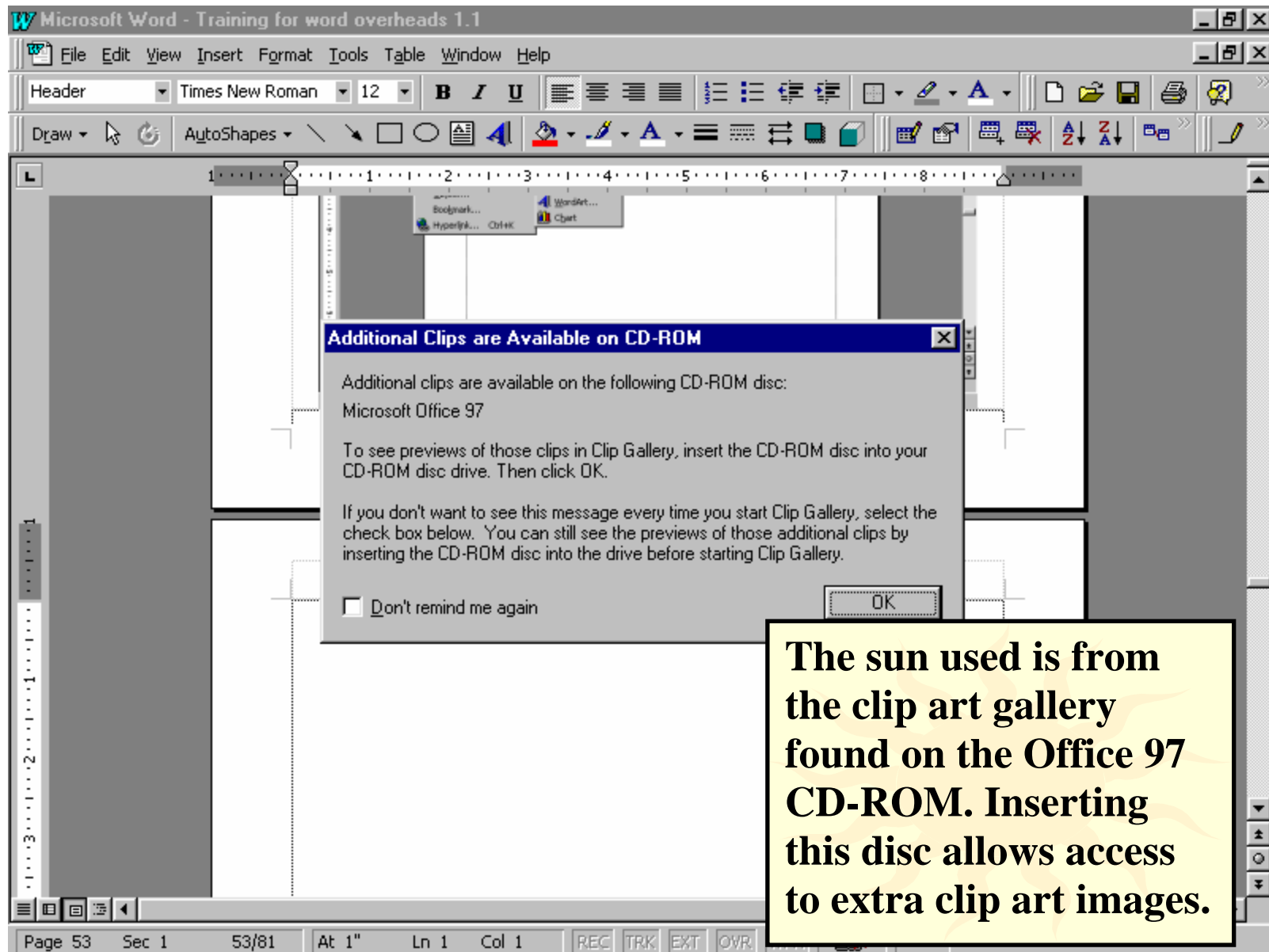
Click hold and pull down here to open up your file tree and choose a specific file to look in or open.

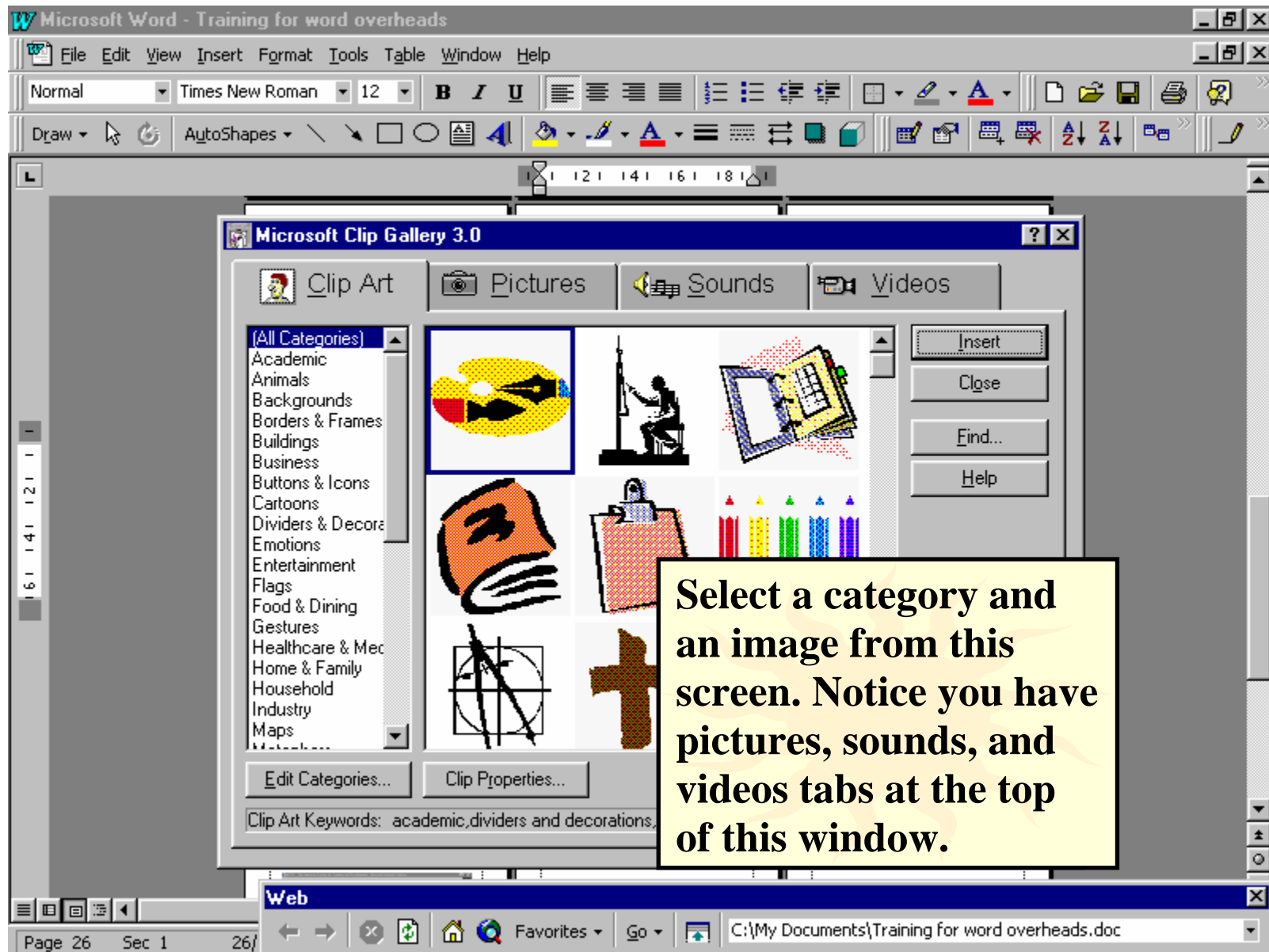
Here the file is being imported from the My Documents folder. Opening this folder by clicking on it will show you the items inside that folder you can use here.

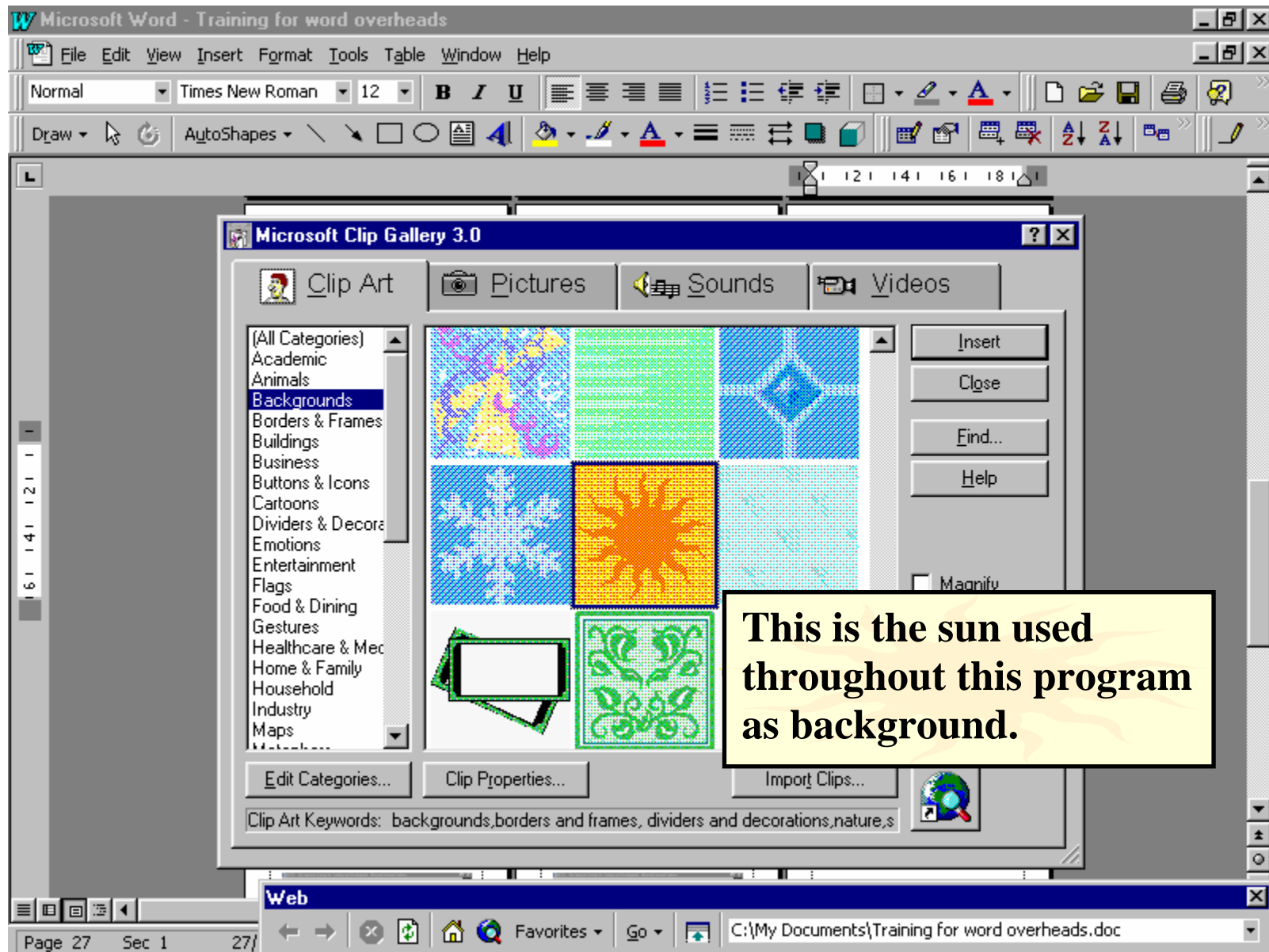


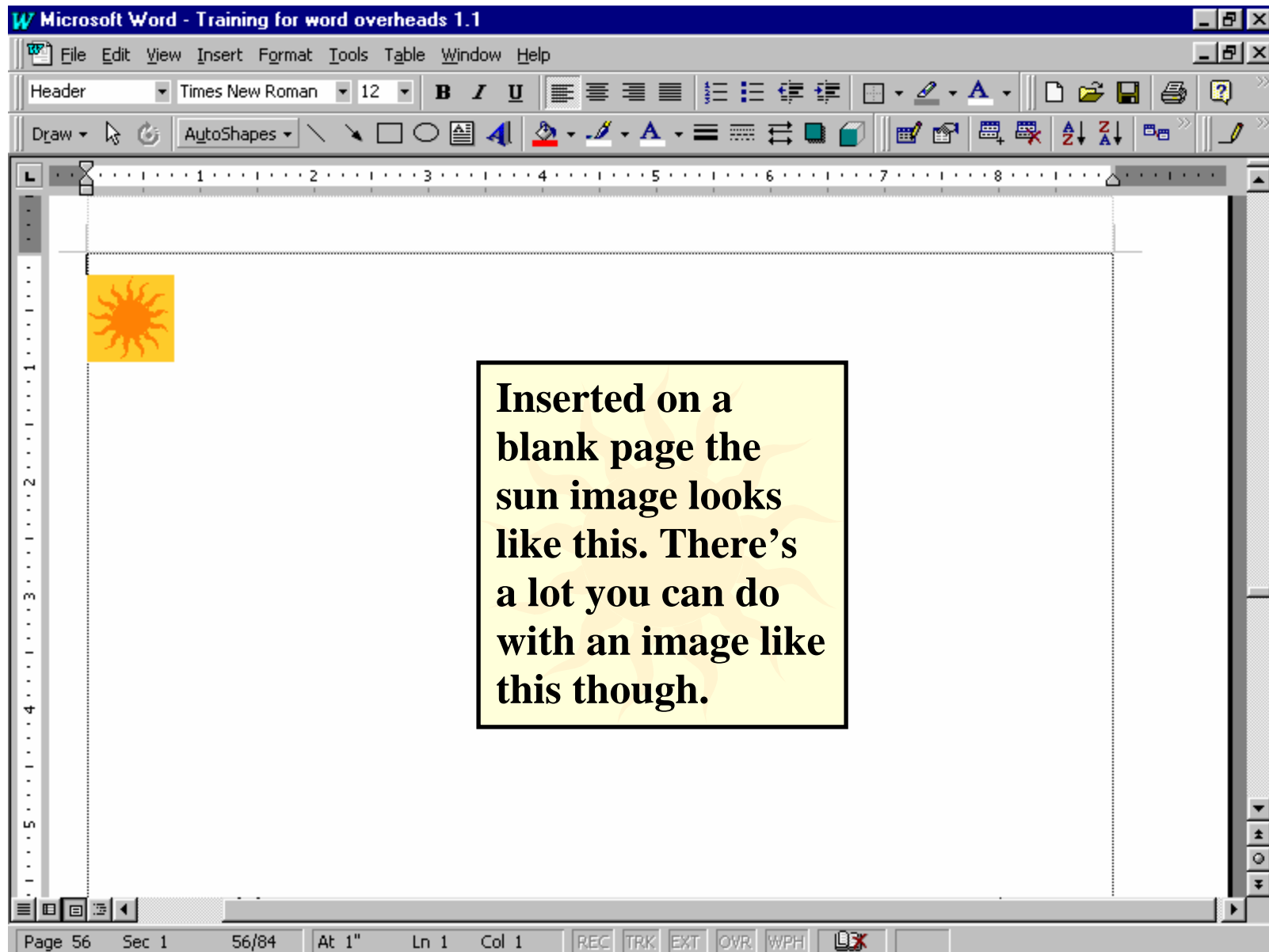






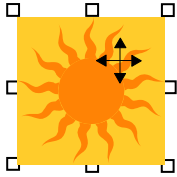




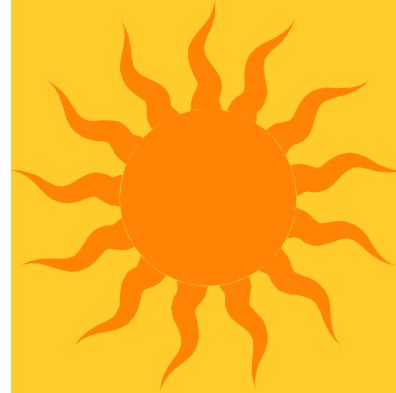
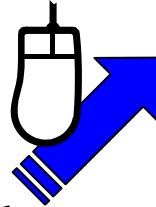
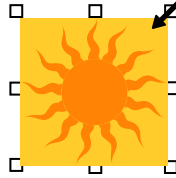


Click, hold, and drag to move objects when you see the **dragging handle**. It will appear anywhere over solid objects and along the edges of hollow objects.

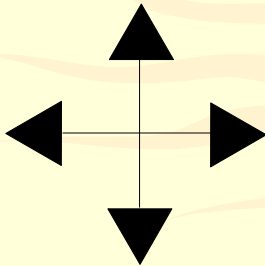
Moving over text activates the **text cursor**.



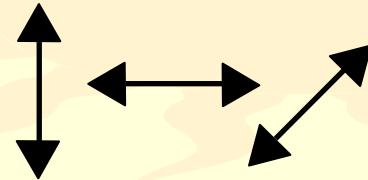
Diagonal **sizing handles** expand images vertically and horizontally at the same time hold shift to lock the aspect ratio.



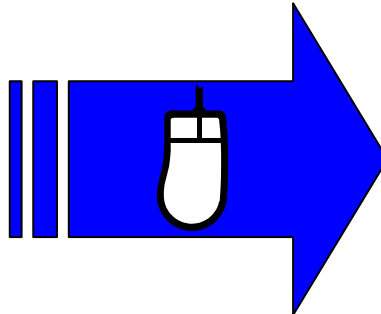
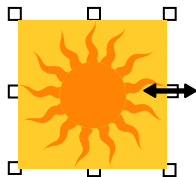
Dragging Handle



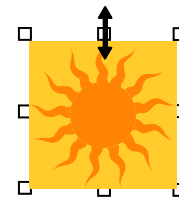
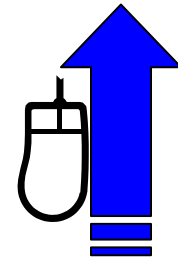
Sizing Handles



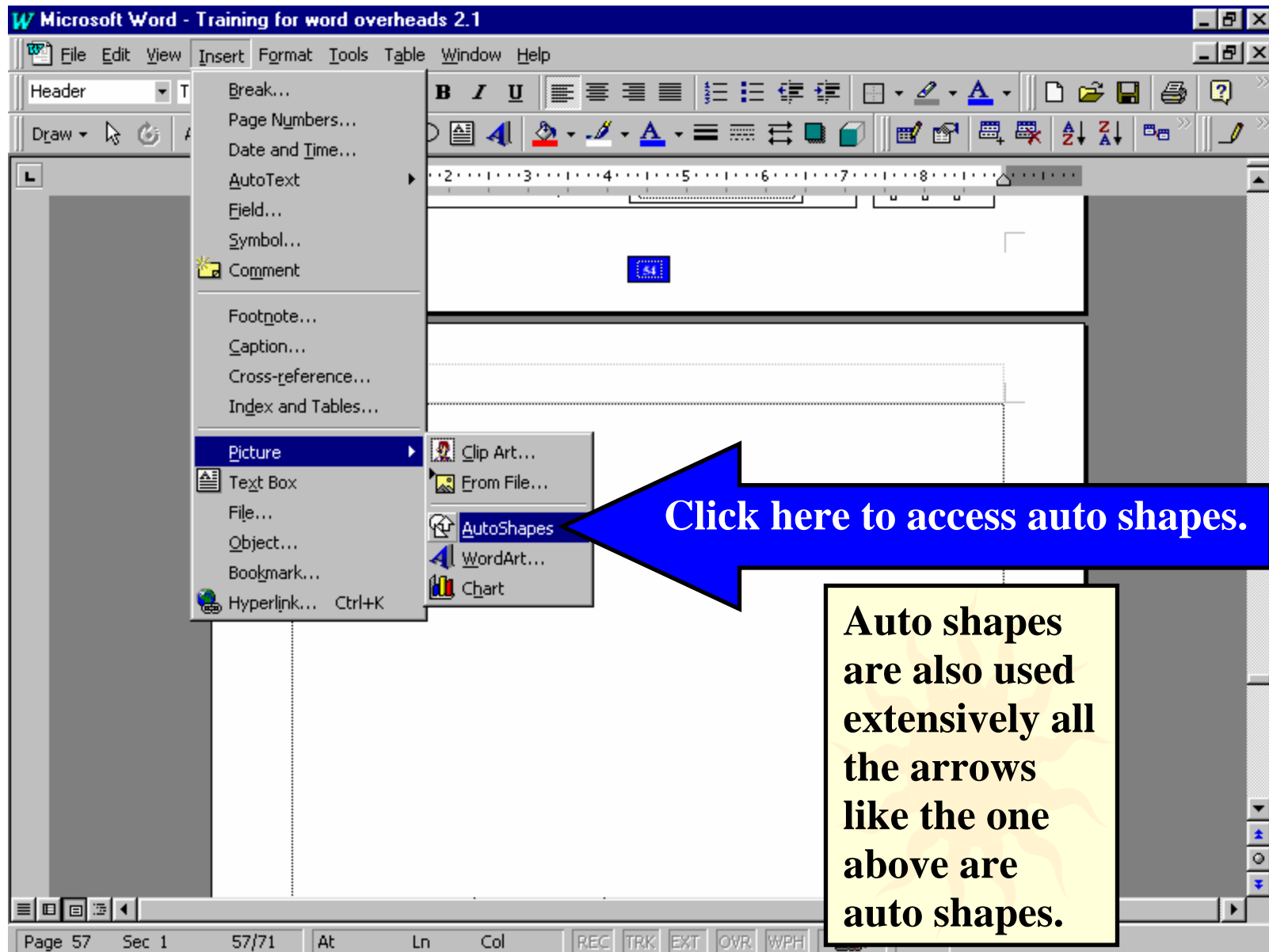
When you move your cursor over an object other than text you will see **dragging handles** click when you are over the object you want to select that object. Once selected the object will be highlighted. **Clicking and holding and dragging** the image when you see dragging handles will drag a highlighted object. **Clicking and holding and dragging** the image when you see sizing handles will allow you to resize an object.

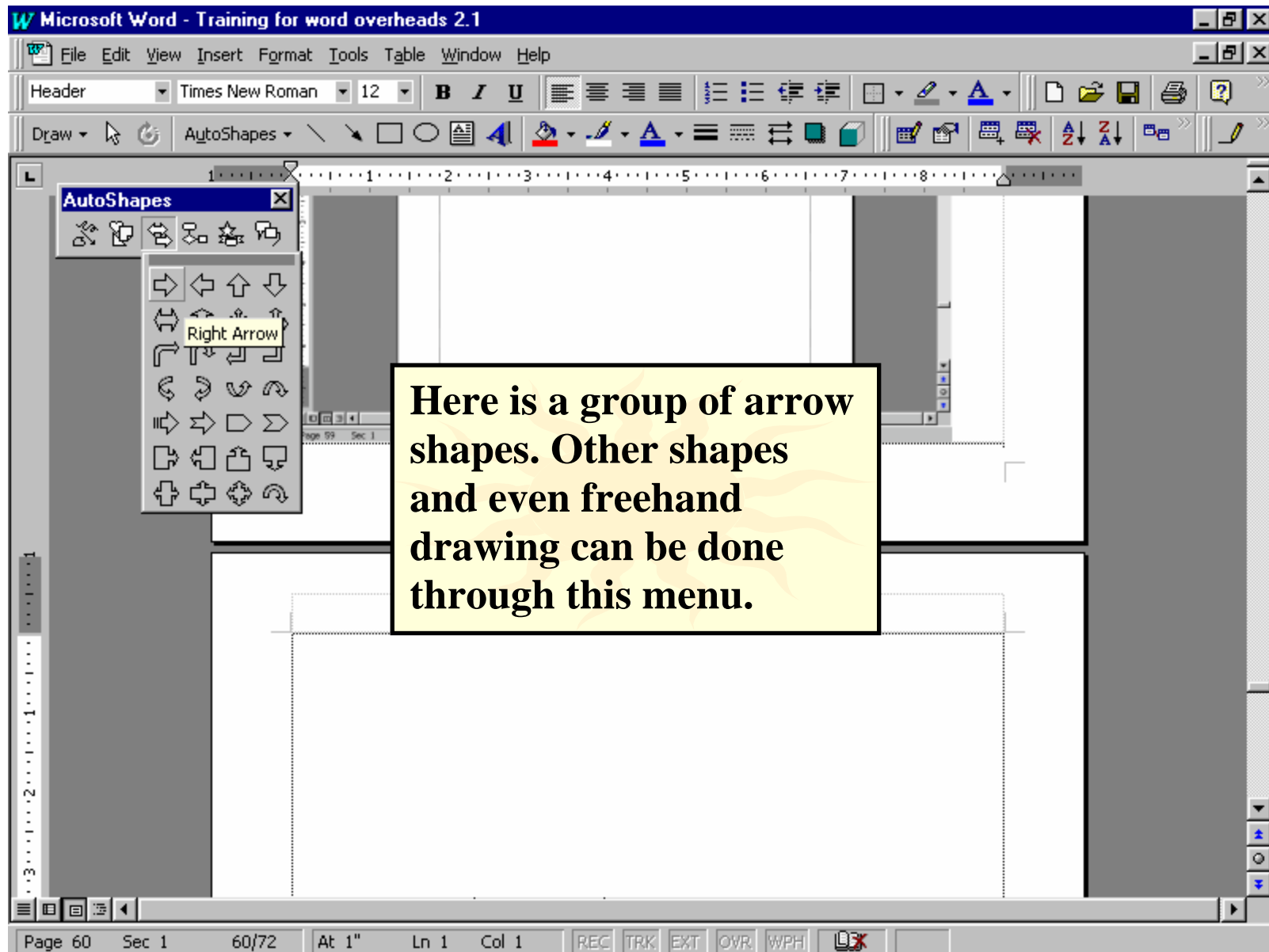


Horizontal **sizing handles** will stretch an object horizontally.

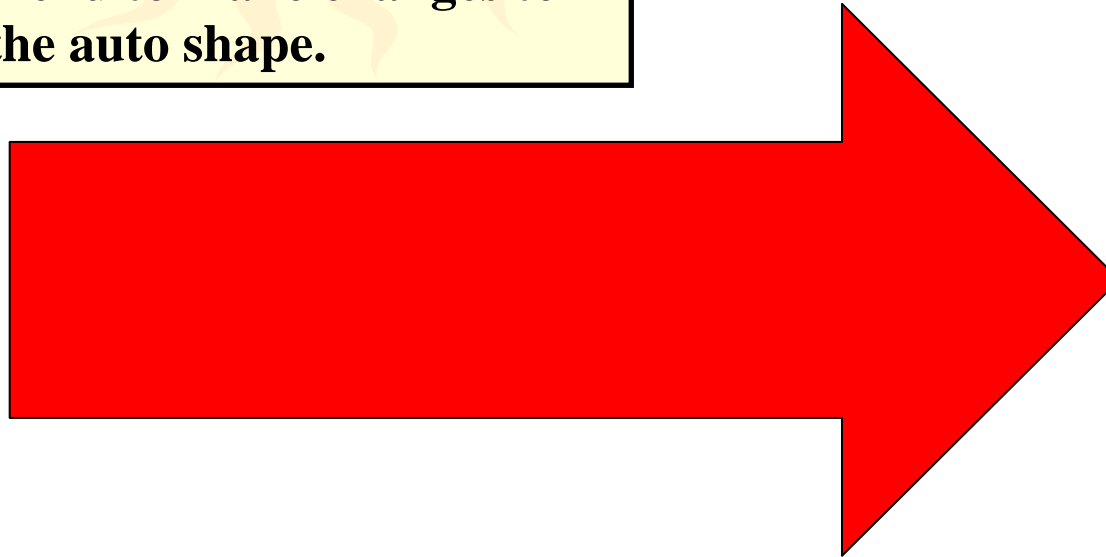


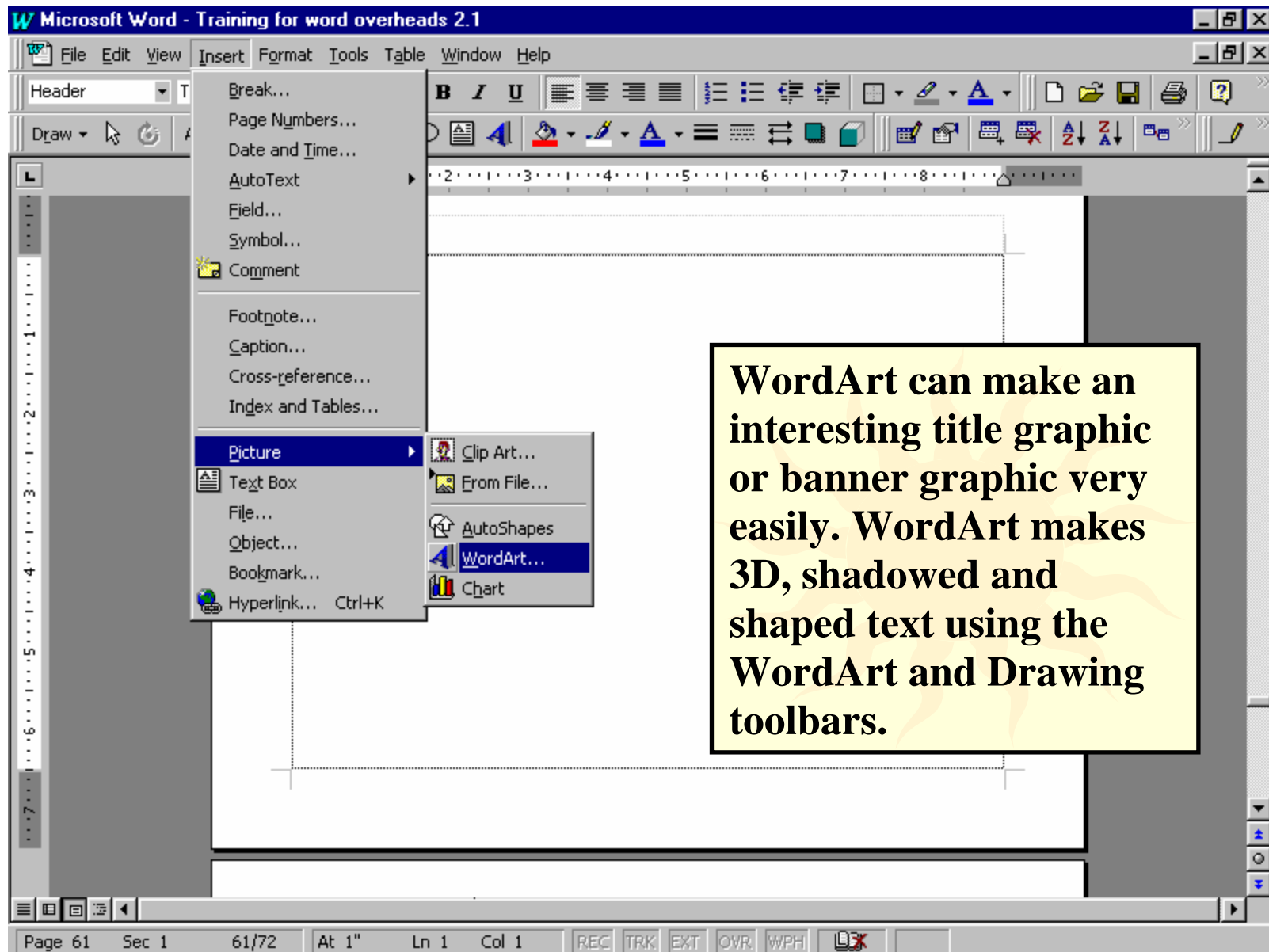
Vertical **sizing handles** will stretch an object.

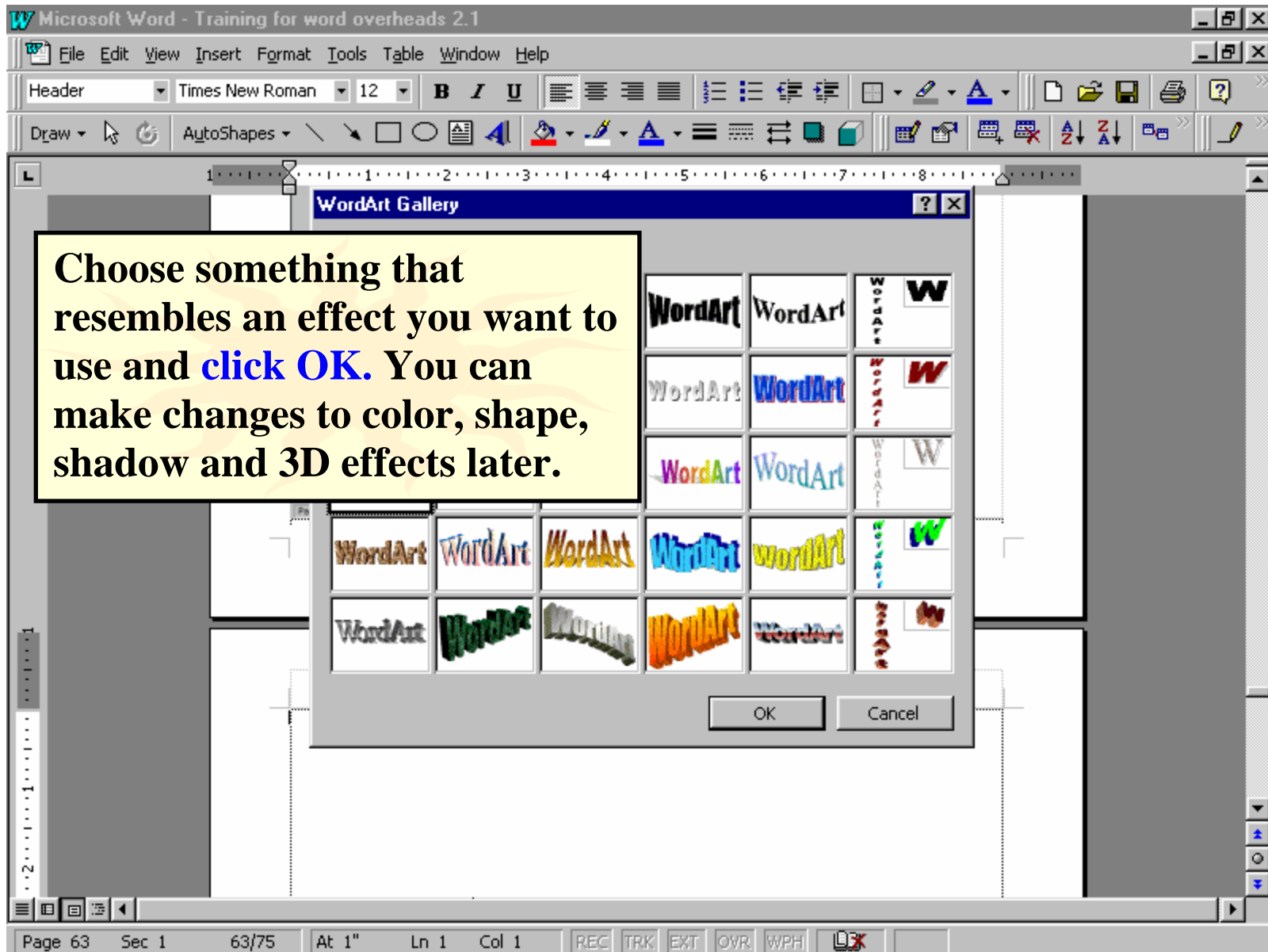




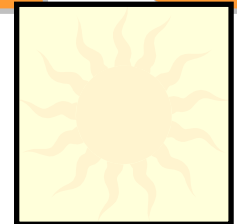
Auto shapes can be made into any color shape or size you want use the sizing handles and the format menu to make changes to the auto shape.

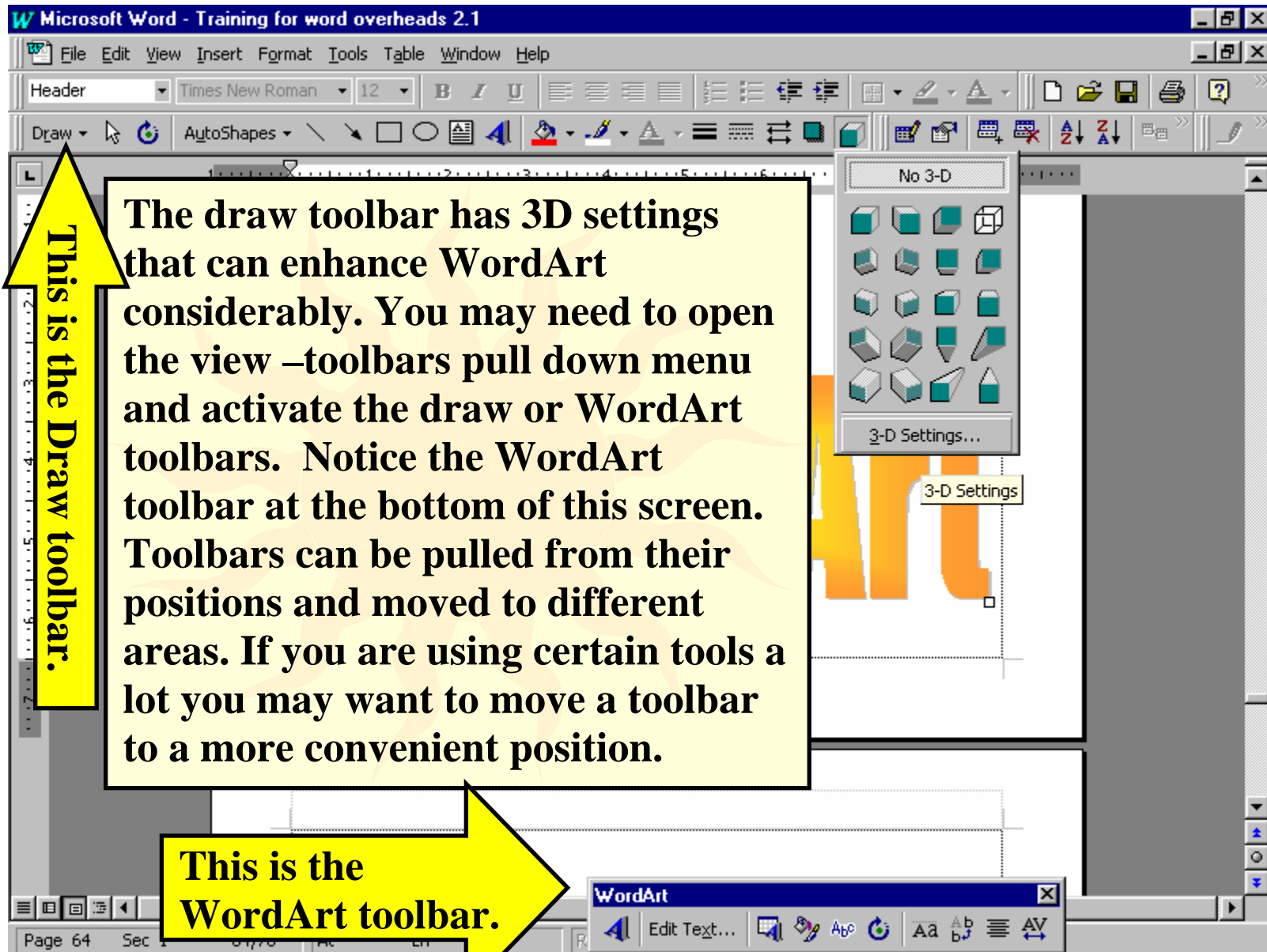


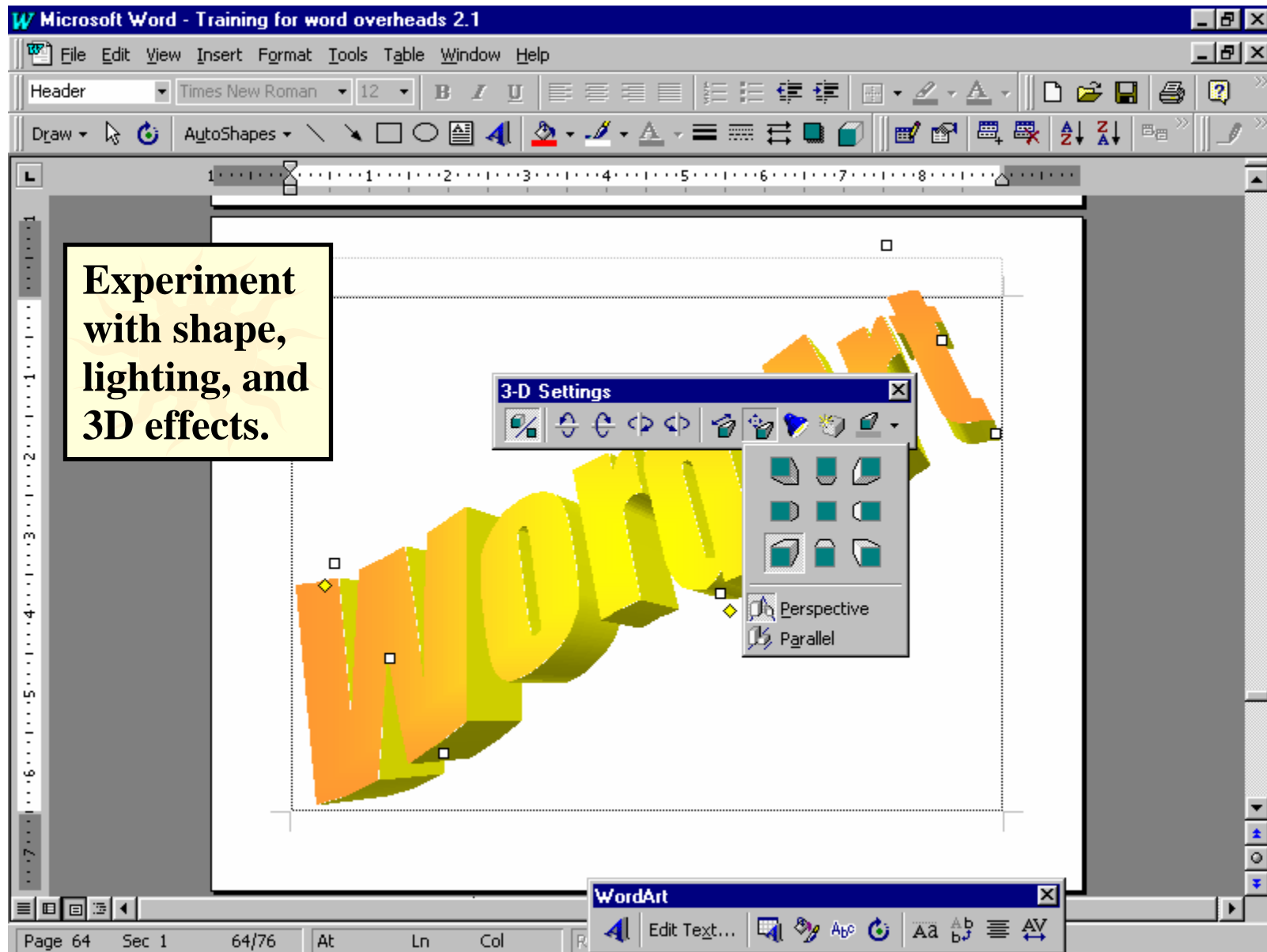




Word Art

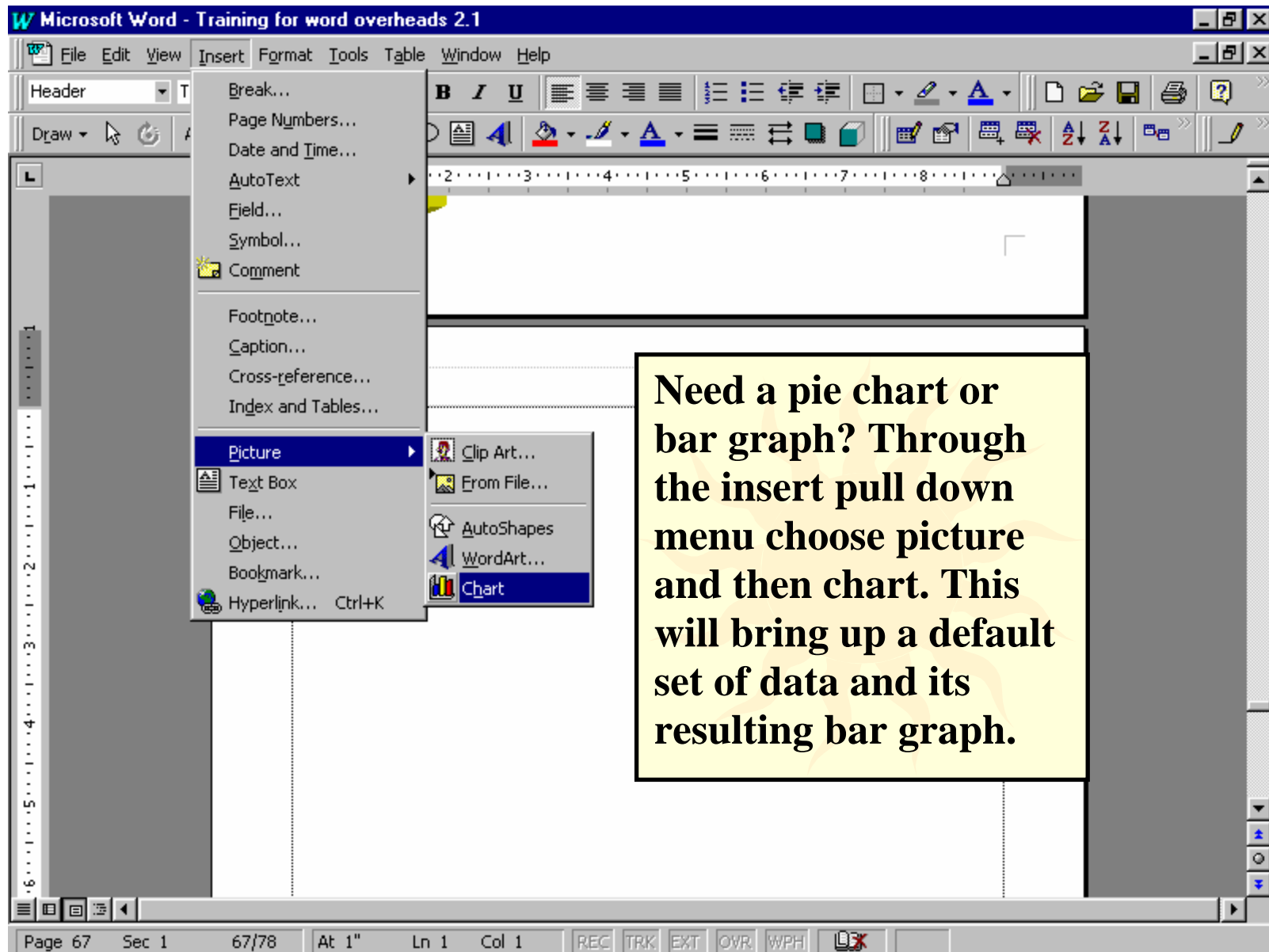






WORDART

**With a little work
Word will produce a
very unique title for
your next project.**



Microsoft Word - Training for word overheads 2.1

File Edit View Insert Format Tools Data Chart Window Help

Arial 10 B I U \$ % , +.0 .00 +.0

Training for word overhead... - Datasheet

		A	B	C	D	E
		1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	
1	East	20.4	27.4	90	20.4	
2	West	30.6	38.6	34.6	31.6	
3	North	45.9	46.9	45	43.9	
4						

Page 68 Sec 1 68/80 At 3" Ln 1 Col 1 REC TRK EXT OVR WPH

The sample data gives you an idea of how to use alphanumeric data in a datasheet and what the graphs of that data look like.

Microsoft Word - Training for word overheads 2.1

File Edit View Insert

Arial

1 2 3 4 5 6 7

100
80
60
40
20
0

1st Qtr 2nd Qtr 3rd Qtr 4th Qtr

East
West
North

Pie Chart

Click here to change the chart style.

The chart style button allows you to choose the type of chart you want to create.

Training for word overhead... - Datasheet

		A	B	C	D	E
		1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	
1	East	20.4	27.4	90	20.4	
2	West	30.6	38.6	34.6	31.6	
3	North	45.9	46.9	45	43.9	
4						

Page 69 Sec 1 69/81 At 2.9" Ln 1 Col 1 REC TRK EXT OVR WPH

Microsoft Word - Training for word overheads 2.1

File Edit View Insert Format Tools Data Chart Window

Arial 10 B I U

In this example the bar graph was changed to a pie graph. Notice the pie icon next to row 1, it tells you that the data for the graph format you are using is from row 1 only. The default example uses multiple bar graphs to compare different elements over time. A simple pie graph can only make use of one row of data.

		A	B	C	D	E
		1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	
1	East	20.4	27.4	90	20.4	
2	West	30.6	38.6	34.6	31.6	
3	North	45.9	46.9	45	43.9	
4						

Page 70 Sec 1 70/82 At 3" Ln 1 Col 1 REC TRK EXT OVR WPH

Microsoft Word - Training for word overheads 2.1

File Edit View Insert Format Tools Data Chart Window Help

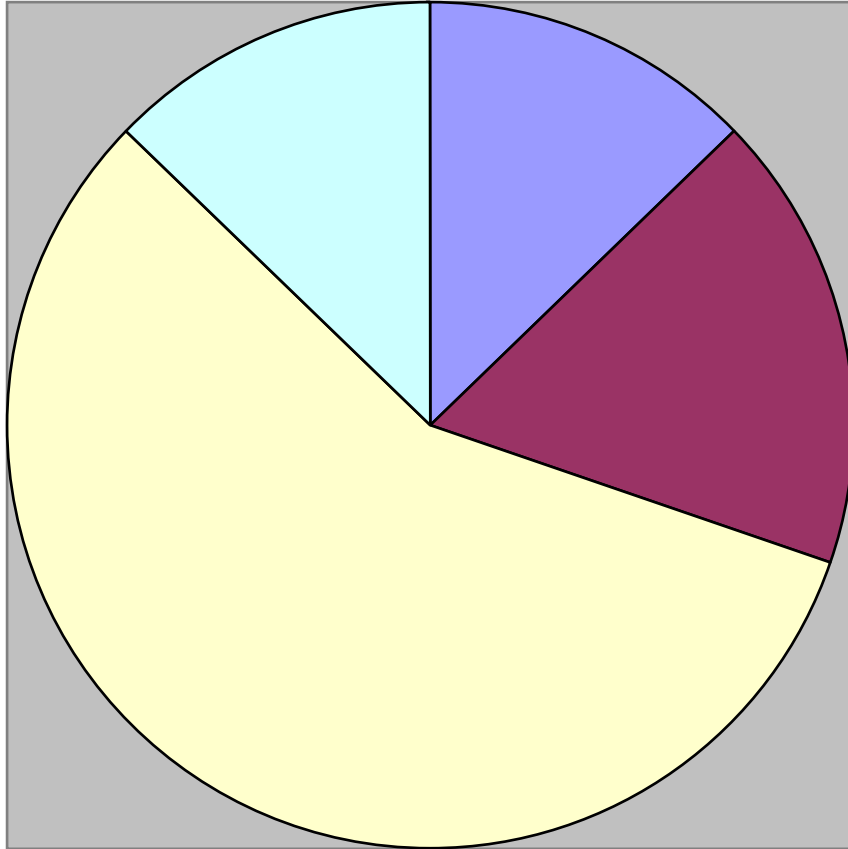
Chart Area

Arial 8 B I U

The screenshot shows a Microsoft Word window titled "Microsoft Word - Training for word overheads 2.1". The menu bar includes File, Edit, View, Insert, Format, Tools, Data, Chart, Window, and Help. The toolbar contains various icons for file operations and editing. The font is set to Arial, size 8. The main document area contains a pie chart with four segments: cyan, blue, red, and yellow. A legend to the right of the chart lists "1st Qtr", "2nd Qtr", "3rd Qtr", and "4th Qtr" with corresponding colored squares. A text box with a yellow background and black border is overlaid on the chart, containing the text: "Once you have your data entered you close the datasheet window so you can make changes to the graph. A graph is composed of many elements and so it can be tricky to select just the elements you want to change." The status bar at the bottom left says "Drag to size object".

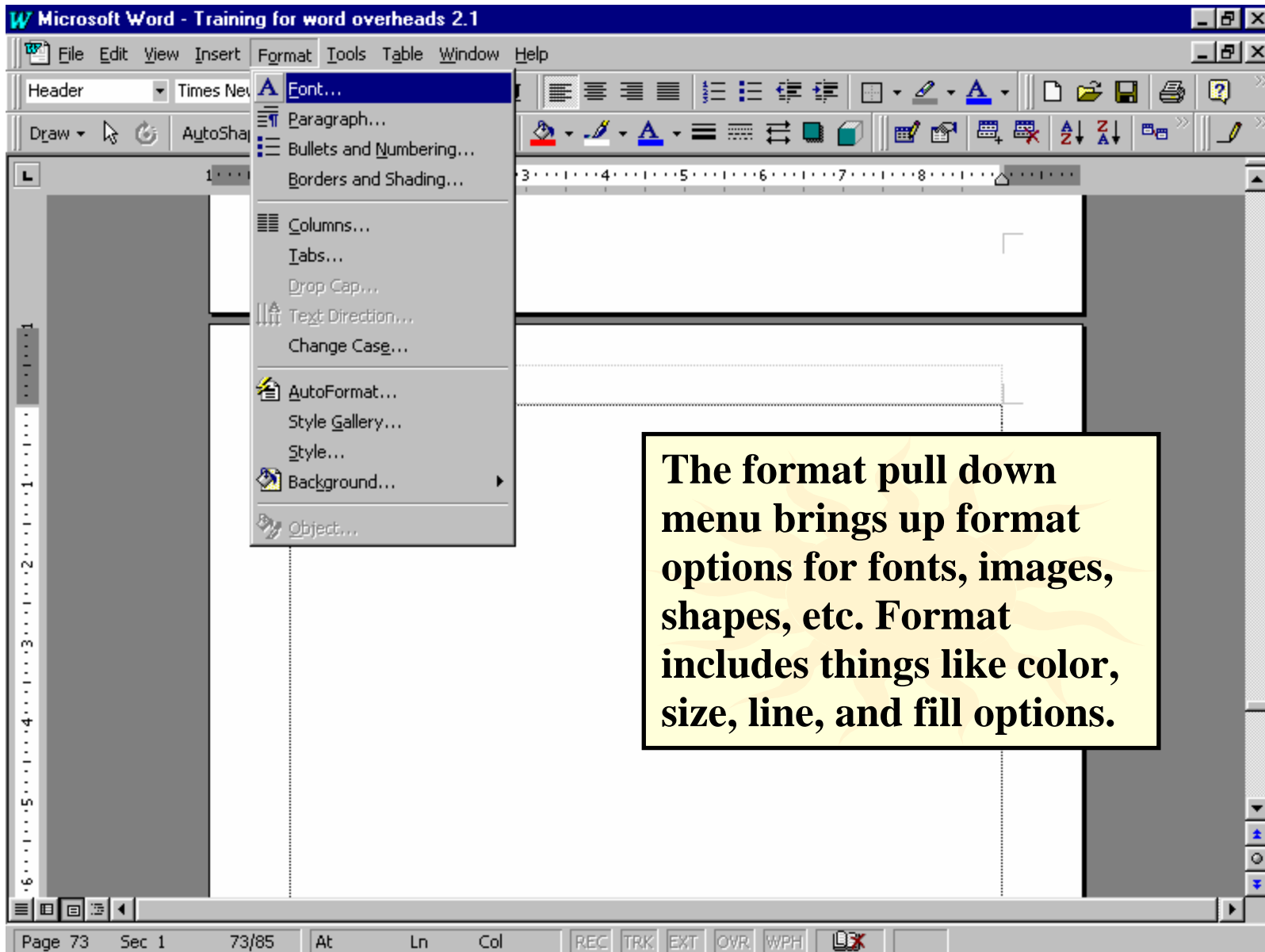
Once you have your data entered you close the datasheet window so you can make changes to the graph. A graph is composed of many elements and so it can be tricky to select just the elements you want to change.

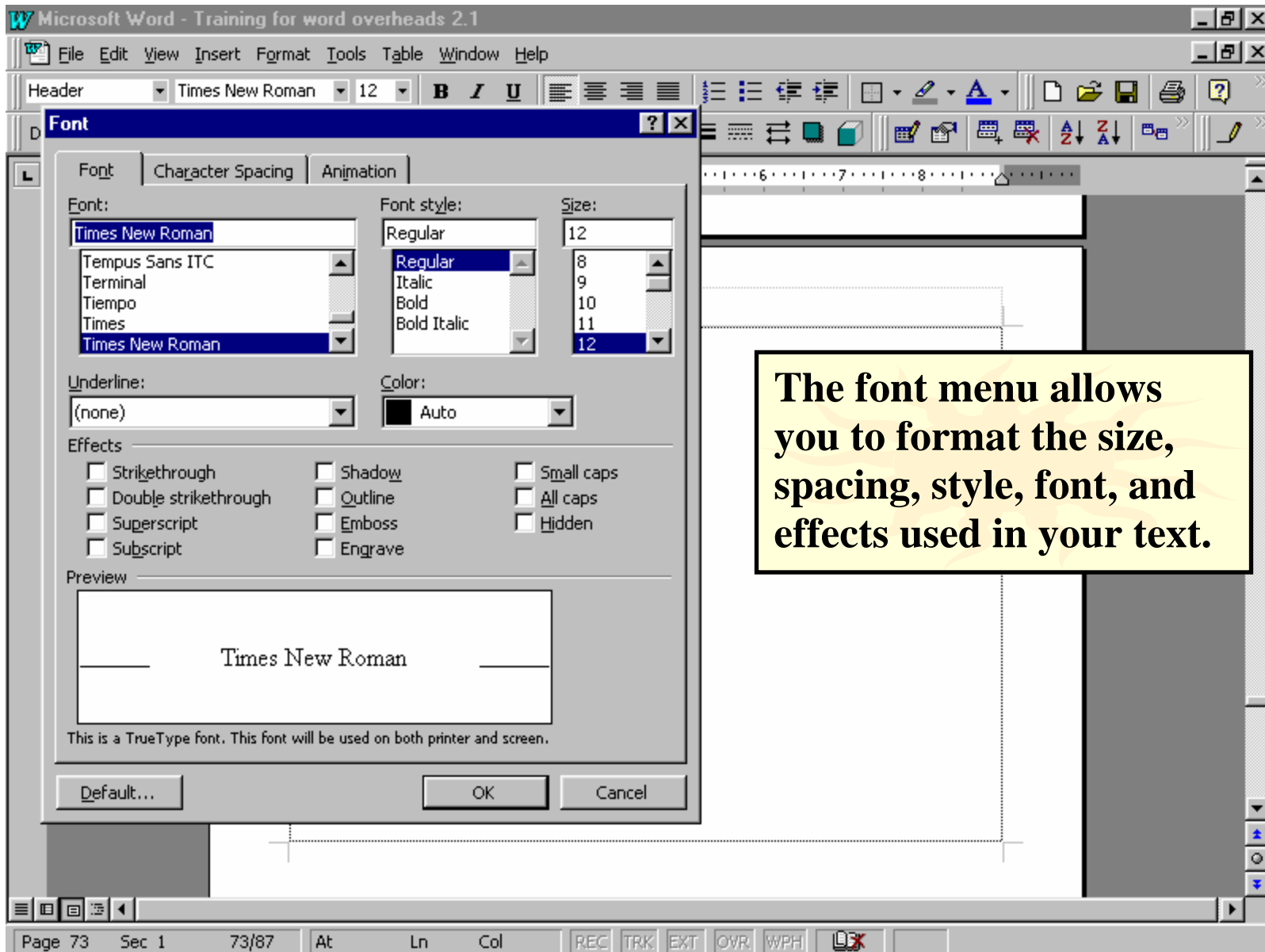
Drag to size object

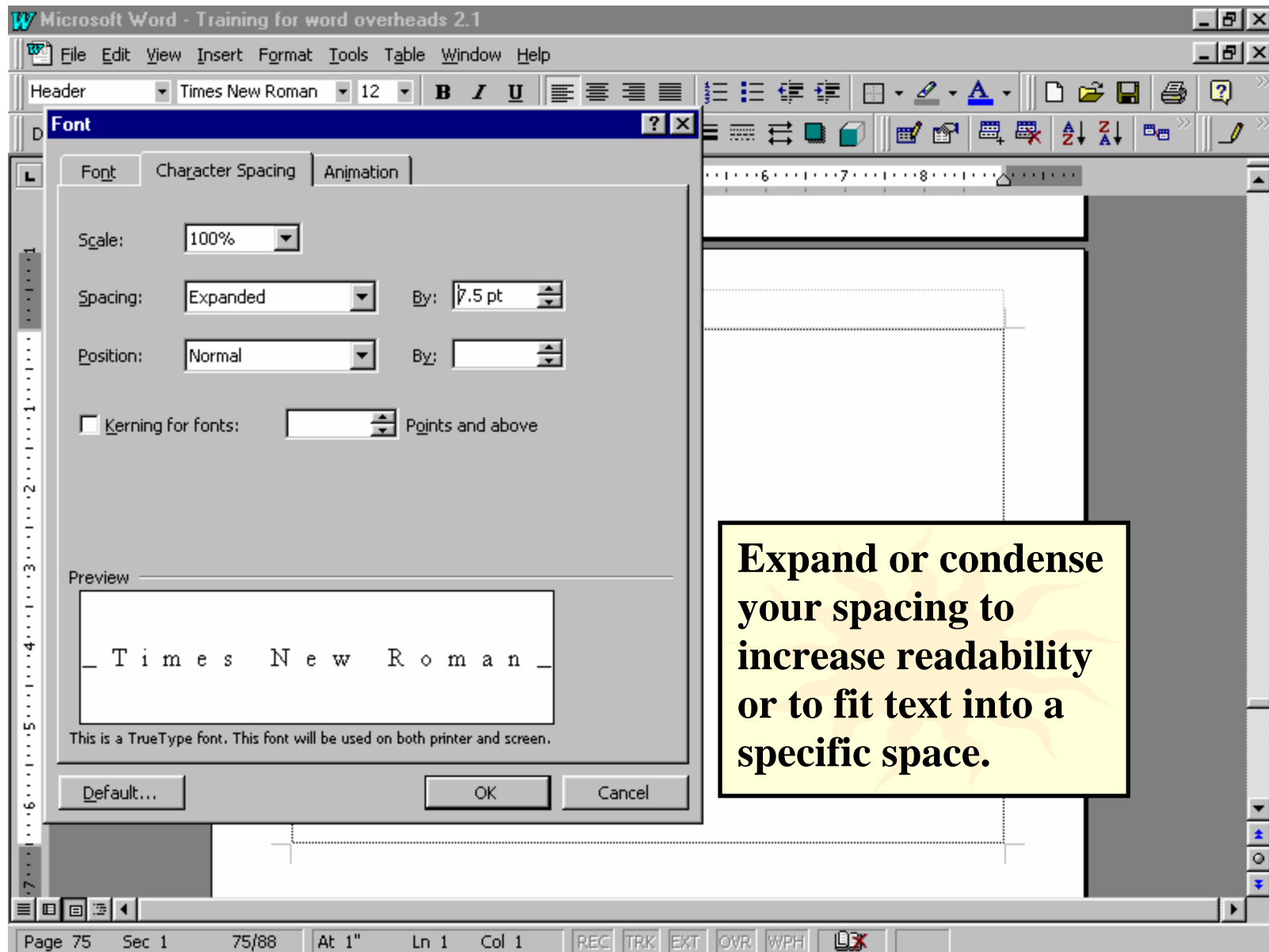


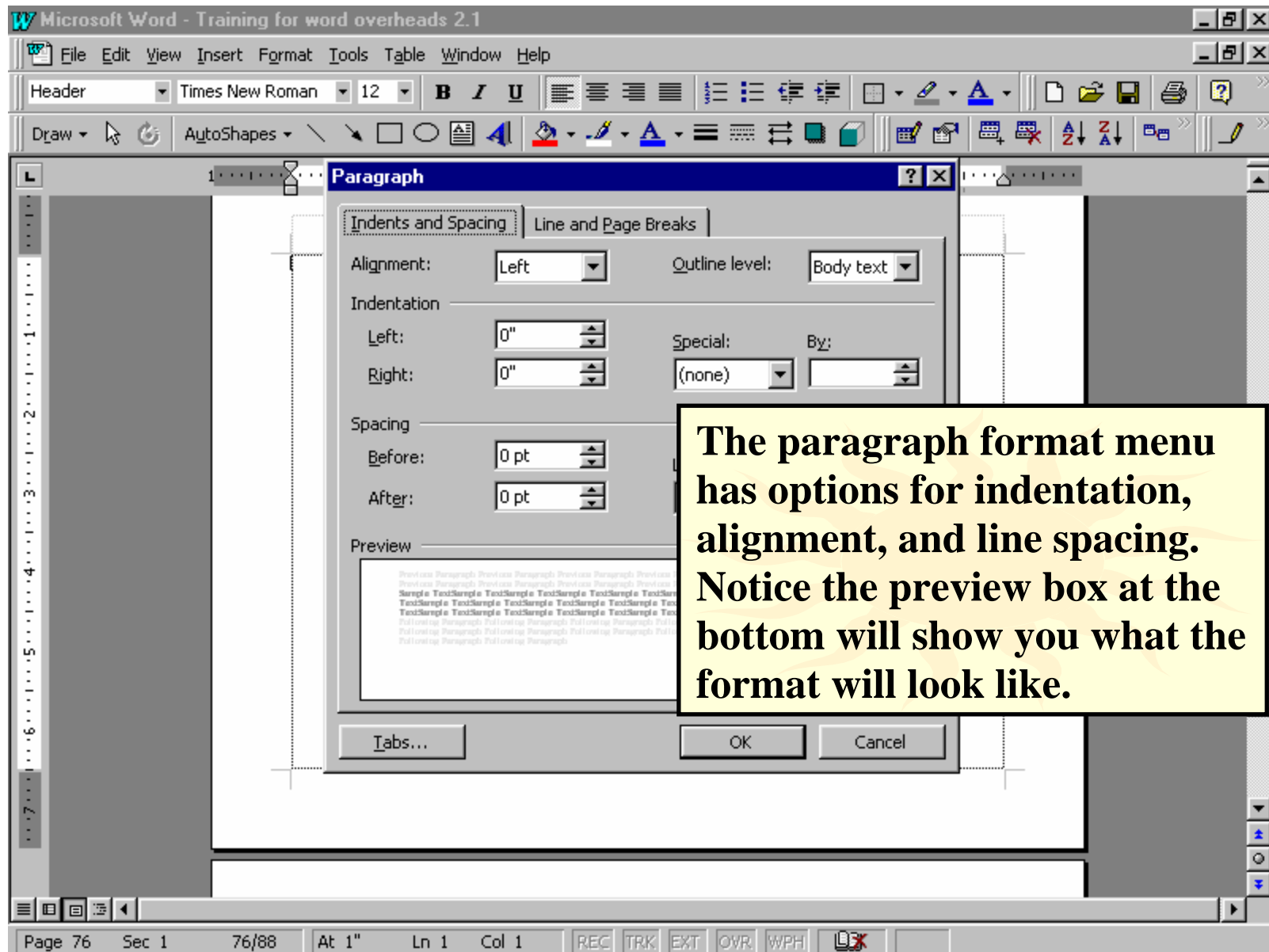
- 1st Qtr
- 2nd Qtr
- 3rd Qtr
- 4th Qtr

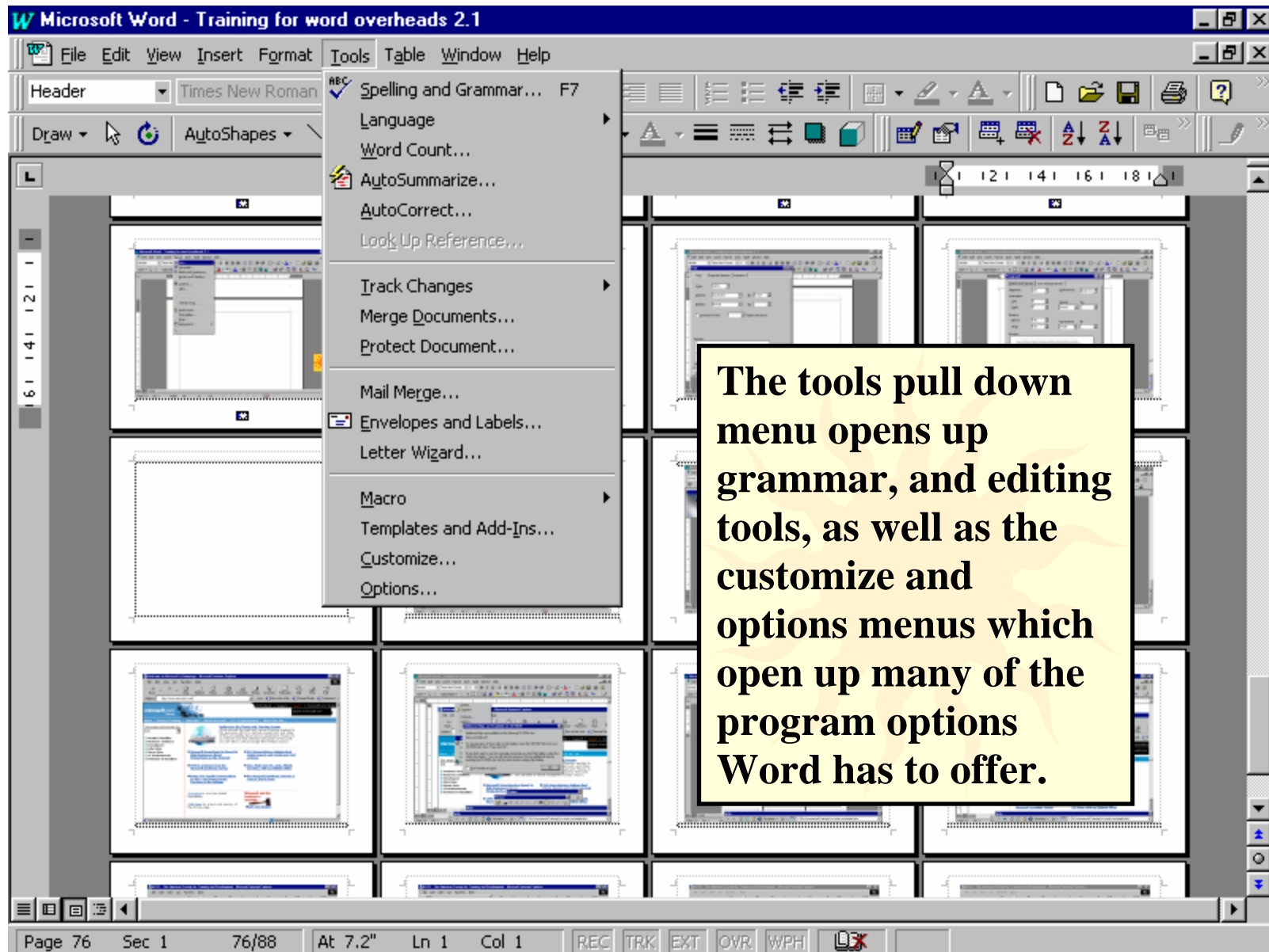
To make a full page graph you can grab the sizing handles on the graph and expand it until it fills the desired space.



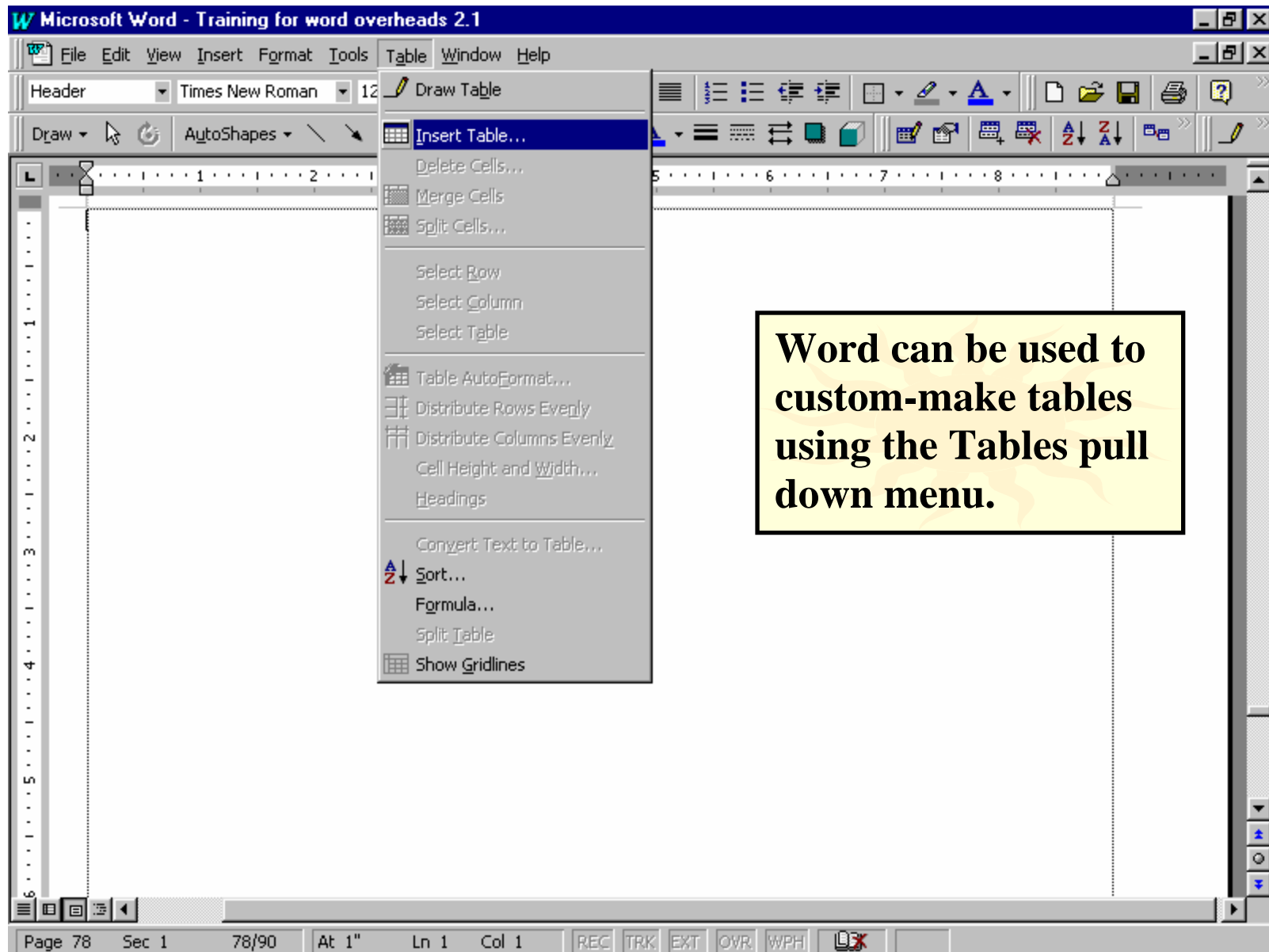




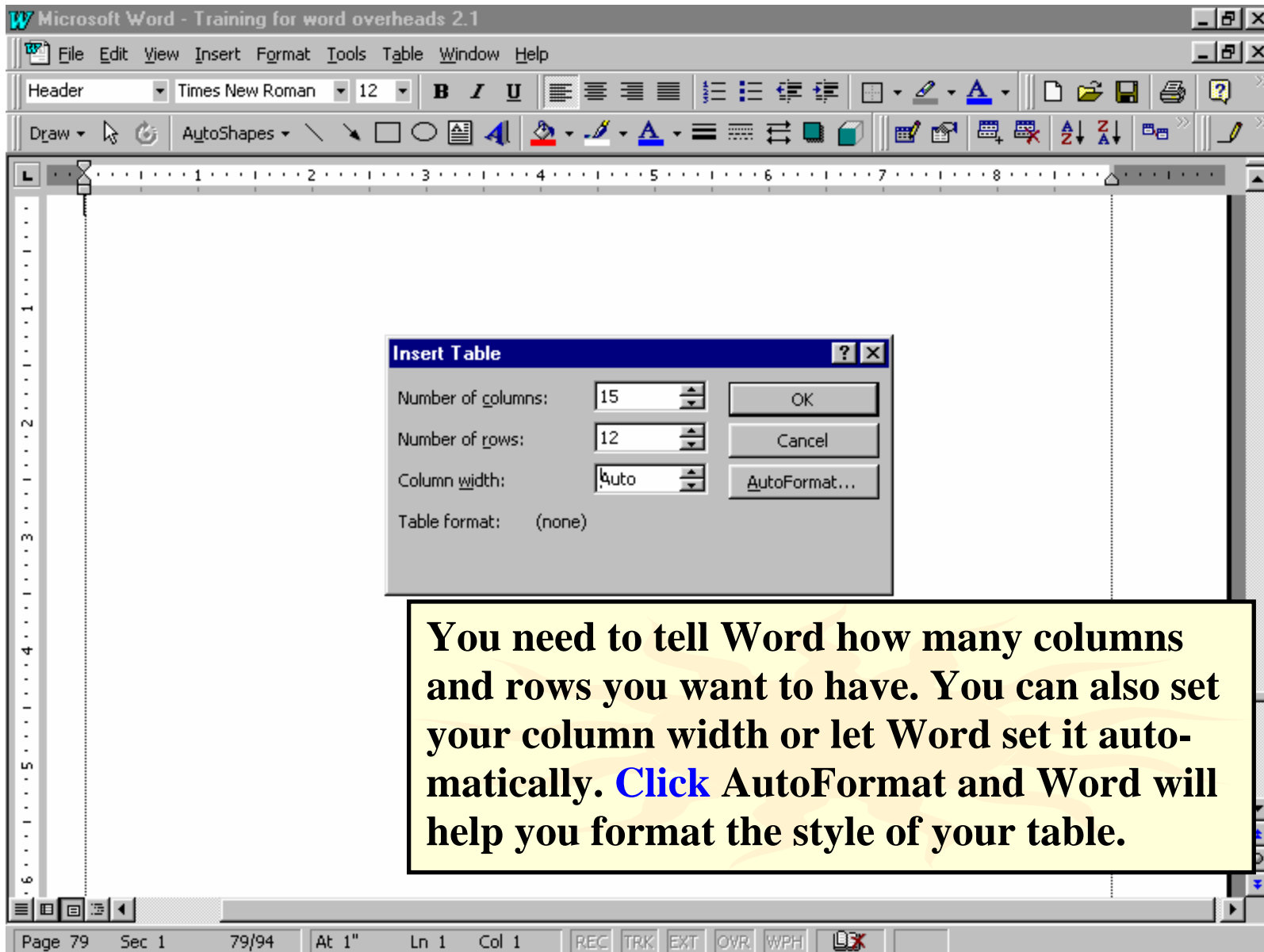




The tools pull down menu opens up grammar, and editing tools, as well as the customize and options menus which open up many of the program options Word has to offer.



Word can be used to custom-make tables using the Tables pull down menu.



Microsoft Word - Training for word overheads 2.1

File Edit View Insert Format Tools Table Window Help

Header Times New Roman 12 B I U

Draw AutoShapes

This is the table set up with 15 columns and 12 rows, width auto.

Page 80 Sec 1 80/94 At 1.1" Ln 2 Col 1 REC TRK EXT OVR WPH

Microsoft Word - Training for word overheads 2.1

File Edit View Insert Format Tools Table Window Help

Header Times New Roman 12 B I U

Draw AutoShapes

Table AutoFormat

Formats:

- (none)
- Simple 1
- Simple 2
- Simple 3
- Classic 1
- Classic 2**
- Classic 3
- Classic 4
- Colorful 1
- Colorful 2

Preview

	Jan	Feb	Mar	Total
East	7	7	5	19
West	6	4	7	17
South	8	7	9	24
Total	21	18	21	60

Formats to apply

- Borders
- Shading
- Font
- Color
- AutoFit

Apply special formats to

- Heading rows
- First column
- Last row
- Last column

OK

AutoFormat creates a table with some graphical elements included.

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