Infusing Technology into Language Arts 2007

Self-Study Guide

Manager of Curriculum Development / Writer
Paolo Galido
Grace Reyes

Editors
Heather Cates
Trina Schlecht
Jodi Kobos

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Introduction

Infusing Technology into Language Arts is an exciting professional development tool for middle and high school teachers. Whether used as a self-study guide or as part of an integrated course, this innovative approach enables teachers to integrate technology into their curriculum after working through the self-study process.

This guide leads language arts teachers through the design, creation and implementation of a technology-infused lesson that is based on teachers' existing instructional plans. As a first step, the teacher works through one or several of the 10 classroom-ready sample integrated projects. After review of the sample, a step-by-step guide for the creation of a technology-infused project based on the teacher's existing instructional materials follows and includes suggestions for considering teaching style, classroom needs, available technology tools, curriculum requirements and relevant standards. The organization of the course is flexible, adaptable and builds on teachers' strengths and content knowledge.

Infusing Technology into Language Arts includes:

- Practical advice for maximizing the benefits from every session
- Ten standards-based projects for use as both samples and as actual classroom projects
- Suggestions for adapting the project-creation process to individual teacher needs and styles
- A range of Internet resources for language arts and professional development
- A sample student assessment rubric
- Reference and resource material for the software applications used to create projects
- A glossary of technology terms

Teachers who are interested in integrating technology into their curriculum will find no better process than *Infusing Technology into Language Arts.*

Required Materials

PC with at least 64 MB of RAM and Internet access

CD-ROM drive

Floppy, Zip or CD-R/W drive

Infusing Technology into Language Arts 2007 course book and CD

Microsoft Office 2007Professional (includes *Access, Excel, PowerPoint, Publisher* and *Word*)

Microsoft SharePoint Designer 2007

Internet Explorer or *Netscape Navigator*

Printer (color, if available)

Organization of the Course Materials

Course Book

The course book is divided into an introduction and four sections containing practical advice and simple techniques.

The **Introduction** presents an overview of the course and introduces the software applications used in each sample project.

The **Sample Projects** section includes 10 fully developed technology projects that are ready for immediate use in the classroom. The model projects are practical, clearly outlined and adaptable to different grade levels. They present a range of technology skills and software applications. Each project includes a teacher guide component and a student handout. The teacher guide includes preparation, evaluation, extension activities and enrichment activities. Each guide also cites relevant standards from the National Council for Teachers of English (NCTE) and performance indicators from the Technology Standards established by the International Society for Technology in Education (ISTE). Projects requiring Internet resources include useful Web sites. In addition, a *Project Analysis Form* provides a series of evaluative questions to gauge the effectiveness and usefulness of technology-infused lessons.

The **Project Creation** section is a step-by-step guide through the process of creating, developing and implementing original technology projects. It also provides assessment tools for evaluating projects.

The **Internet** section contains a broad range of excellent professional development and language arts resources found on the World Wide Web.

The **Appendices** consist of reference material for the software applications on which the projects are based, as well as a glossary of useful technology terms.

CD Contents

Electronic templates and lesson samples in *Office 2007* version

Hyperlinks included in the course book

File-based versions of rubrics and evaluation models

Software Applications

Microsoft Access 2007*	A relational database program, *Microsoft Access* integrates and organizes data so that information can be found quickly and easily. Users can modify and explore existing templates to build an understanding of database functions and importance.
Microsoft Excel 2007*	This comprehensive spreadsheet program enables users to analyze, report and share data. *Microsoft Excel* can be used to manipulate and analyze data within a spreadsheet, as well as create tables, charts and graphs to display information.
Microsoft SharePoint Designer 2007	*Microsoft SharePoint Designer* allows users to create and manage Web pages and sites in an easy-to-learn format.
Internet Explorer 7.0†	This Web browser allows users to connect to the Internet and access a wide variety of information. *Internet Explorer 7.0* enables users to access search engines and directories, view Web sites and gain a thorough understanding of the Internet. *Netscape Navigator* may be substituted.
Microsoft PowerPoint 2007*	With *Microsoft PowerPoint*, users can create multimedia presentations to illustrate and deliver ideas.
Microsoft Publisher 2007*	This desktop publishing program incorporates a grid system that splits parts of the page, providing users with a canvas for placing words and pictures. Functions allow for manipulation of images, text and graphics.
Microsoft Word 2007*	With this word processing application, users may edit and format text, create tables, insert graphics, design headers and footers and link information between documents. The program features automatic spelling and grammar functions as well as Internet capabilities.

*These programs are bundled as part of *Microsoft Office 2007 Professional.*
†*Internet Explorer* is bundled as part of *Windows.* It is also available for download at www.microsoft.com.

Microsoft Office 2007 Professional is available in the following languages: Arabic, Basque, Brazilian, Chinese-Simplified, Chinese-Traditional, Croatian, Czech, Danish, Dutch, English, French, German, Greek, Hebrew, Hungarian, Italian, Japanese, Korean, Norwegian, Polish, Portuguese, Russian, Slovak, Slovenian, Spanish, Swedish, Thai, Turkish and Vietnamese.

For Further Information:
Microsoft Corporation
One Microsoft Way
Redmond, WA 98052-6399, USA
Sales: (800) 426-9400
Technical Support: (800) 936-4900
http://www.microsoft.com

Course of Self-Study

If you are using this guide as part of an integration class, then the instructor will provide directions for working with this book. If you are using it as a self-study tool, then the following steps are recommended:

Begin by reviewing the book: glance through the sections and skim any projects that seem particularly applicable or interesting.

Set aside approximately two hours for the first session. The experience with the technology (and project sampling) during the first session will help gauge the time needed for future sessions. The session schedule suggested here should be considered only as a guide. Adapt it as needed.

1. Work through one of the model projects from Section 2 and use the Project Analysis Form to note any response. If time permits, sample additional projects that require different software applications.
2. Design a project using the guidelines found in Section 3. Make an electronic template if applicable, then create a student handout using those found in the sample projects as models. Check the steps by following the directions outlined on the student handout. Make any necessary adjustments to the project or the handout, then finalize the documentation.
3. Prepare the project for use in the classroom. Set up the network and prepare floppy disks as needed. Make copies of the materials, such as handouts and assessment tools.
4. Implement the project and have the students work through it. Encourage them to work on their own or collaboratively, as appropriate.
5. When the students have finished the project, evaluate its effectiveness by using the provided Project Evaluation Rubric, then hone and revise the project as necessary.

Course Support

The Futurekids Web site provides further information about the **Infusing Technology** Self-study series. Log on to **www.futurekids.com** and, on the Products page under Teacher Curriculum, choose the Infusing Technology link.

The Customer Service Desk can be reached during the hours of 9 a.m. to 5 p.m. PST at (800)-765-8000.

For e-mail assistance, please direct questions to **products@futurekids.com.**

Module 1: Sample Projects

This section includes ten fully developed technology projects that introduce one or more software applications. Glance over the brief descriptions below as well as the *Possible Organizational Approaches* section on pages 10-11 to decide which project to sample first. Set aside approximately two hours for the first self-study session.

Project Descriptions

Project 1: Literary Newspaper

- *Microsoft Word 2007*
- Web browser

Create the front page of a newspaper based on an important issue or event from a short story or novel. The front page should be written and designed in a style that reflects the era of the selected literary work. Use Internet-based research and personal creativity to find illustrations and write articles for the page.

Project 2: Essay Writing Guide Presentation

- *Microsoft Word 2007*
- *Microsoft PowerPoint 2007*
- Web browser

Apply Internet-based research skills to discover tips on the essay-writing process. Using this data and the supplied template, prepare a multimedia presentation detailing the steps involved in writing a strong essay.

Project 3: Reading Virtual Card Catalogue

- *Microsoft Access 2007*
- *Microsoft Word 2007*

Create a database of book evaluations and related information. Build the database from scratch or modify the supplied electronic template. With this project, individual input may be integrated into the main database to become part of the virtual card catalogue serving at the class, grade or school-wide level.

Project 4: Character Goals Project

- *Microsoft Excel 2007*

List three important characters in a literary work (preferably a play or other text with clearly defined sections). Determine the goal or objective that each character hopes

to accomplish during the course of the story. Make a worksheet as described in the student handout that charts the character's progress toward the goal through the various sections of the book.

Project 5: Web Game Show

- *Microsoft SharePoint Designer 2007*
- Web browser

Create a Web site containing a multiple-choice quiz in a game show format. Using the supplied template as a design for the opening game board, develop the Web page and complete the site with hyperlinks to new pages. For this project, students will serve as masters of ceremonies and scorekeepers of their games, then present them to the class.

Project 6: Literary Trading Cards

- *Microsoft Publisher 2007*
- Web browser

Produce a set of two-sided trading cards based on a work of literature. Organize the cards by literary elements such as character, setting, conflict and symbols. Each card will include an image on one side and an explanation or description on the other. A template is provided. Use the Internet to find appropriate images and data to complete the cards.

Project 7: Word Soup Vocabulary Project

- *Microsoft Word 2007*
- Web browser

Develop and use a table of Latin and Greek morphemes to generate vocabulary words. The project encourages the combination of morphemes in creative ways, even if the resulting combinations are not legitimate words. A supplied template provides a sample format, and the student handout suggests ways to check the validity of the newly created words.

Project 8: Chamber of Commerce Web Site

- *Microsoft SharePoint Designer 2007*
- Web browser

Develop a multi-page Web site based on a work of literature and modeled on a representative chamber of commerce site. Begin by searching the Internet for town or city-related Web sites. Then create a Web site for a time and place found in the selected literary work. More Internet-based research may be required to gather information and illustrations for the site.

Project 9: Mythology Database

- *Microsoft Access 2007*
- *Microsoft Word 2007*
- Web browser

Using the supplied database, develop a substantial information source on the deities found in the mythologies of various cultures. Use the Internet to research different mythologies, then expand the database so that it contains enough entries to be useful for comparison. Sort the data to find commonalities among several deities and write a report discussing these similarities.

Project 10: Collaborative Creative Writing

- *Microsoft Word 2007*

Gather a group of at least four colleagues for this project. Using specific guidelines and a story prompt, write a sequentially collaborative short story. The first writer develops the prompt and ends with two possible plot directions. The second writer chooses one of the two outcomes, then writes an ongoing narrative, again ending with two possible plot choices. This process continues with different students extending the narrative until a final entry is announced. Each writing period is timed. The multiple plot options help make the final stories unique and interesting.

Personalizing the Course of Study

Optimize the self-study sessions by organizing the examination of the projects to fit specific needs. It is possible to focus the study by software application, project type or personal interests.

Possible Organizational Approaches:

Software Application:

Explore one application at a time by sampling several projects that require the same software.

Microsoft Word

- Project 1 Literary Newspaper
- Project 2 Essay Writing Guide Presentation (with *PowerPoint*)
- Project 3 Reading Virtual Card Catalogue (with *Access*)
- Project 7 Word Soup Vocabulary Project
- Project 9 Mythology Database (with *Access*)
- Project 10 Collaborative Creative Writing

Access

- Project 3 Reading Virtual Card Catalogue (with *Word*)
- Project 9 Mythology Database (with *Word*)

Excel

- Project 4 Character Goals Project

SharePoint Designer

- Project 5 Web Game Show
- Project 8 Chamber of Commerce Web Site

PowerPoint

- Project 2 Essay Writing Guide Presentation (with *Word*)

Publisher

- Project 6 Literary Trading Cards

Project Type:

Another effective approach is to choose projects that reflect teaching style or curriculum requirements. Classes studying the mechanics of language arts will benefit from the skill-based projects below, while classes focusing on literature study will benefit from the literature-based projects.

Skill-Based Projects

- Project 3 Reading Virtual Card Catalogue
- Project 5 Web Game Show
- Project 7 Word Soup Vocabulary Project

Writing Skills

- Project 2 Essay Writing Guide Presentation
- Project 10 Collaborative Creative Writing

Literature-Based Projects

- Project 1 Literary Newspaper
- Project 6 Literary Trading Cards
- Project 8 Chamber of Commerce Web Page
- Project 4 Character Goals Project
- Project 9 Mythology Database

Project 1: Literary Newspaper
Teacher Guide

Description:

The students create the front page of a newspaper based on an important issue or event from a short story or novel, in a style that reflects the era of the selected literary work. They use Internet-based research skills and personal creativity to find illustrations and write articles for the page.

Grade Levels: 6-10

Suggested Time Allotment: Two to three class periods

Materials:

Web browser and *Microsoft Word 2007*

Samples of the front pages of several different newspapers

Prerequisite Skills:

The students should have experience using a Web browser and be familiar with writing text, formatting pages and importing graphics in *Word*.

PA Academic Standards:

Grade 8:

1.1.8G Learning to Read Independently: Demonstrate after reading understanding and interpretation of both fiction and nonfiction text, including public documents.

- Make extensions to related ideas, topics or information.

1.1.8H Learning to Read Independently: Demonstrate fluency and comprehension in reading.

- Read a variety of genres and types of text.

1.2.8B Reading Critically in All Content Areas: Use and understand a variety of media and evaluate the quality of material produced.

- Use, design and develop a media project that expands understanding (e.g., authors and works from a particular historical period).

1.4.8B Types of Writing: Write multi-paragraph informational pieces (e.g., letters, descriptions, reports, instructions, essays, articles, interviews).

- Use relevant graphics (e.g., maps, charts, graphs, tables, illustrations,

photographs).

1.5.8B Quality of Writing: Write using well-developed content appropriate for the topic.

- Write paragraphs that have details and information specific to the topic and relevant to the focus.

1.8.8B Research: Locate information using appropriate sources and strategies.

- Use traditional and electronic search tools.

Grade 11:

1.1.11G Learning to Read Independently: Demonstrate after reading understanding and interpretation of both fiction and nonfiction text, including public documents.

- Make extensions to related ideas, topics or information.

1.1.11H Learning to Read Independently: Demonstrate fluency and comprehension in reading.

- Read a variety of genres and types of text.

1.2.11A Reading Critically in All Content Areas: Read and understand essential content of informational texts and documents in all academic areas.

- Differentiate fact from opinion across a variety of texts by using complete and accurate information, coherent arguments and points of view.

1.2.11B Reading Critically in All Content Areas: Use and understand a variety of media and evaluate the quality of material produced.

- Select appropriate electronic media for research and evaluate the quality of the information received.
- Use, design and develop a media project to demonstrate understanding (e.g., a major writer or literary period or movement).

1.4.11B Types of Writing: Write complex informational pieces (e.g., research papers, analyses, evaluations, essays).

- Use precise language and specific detail.
- Use relevant graphics (e.g., maps, charts, graphs, tables, illustrations, photographs).

1.5.11B Quality of Writing: Write using well-developed content appropriate for the topic.

- Write fully developed paragraphs that have details and information specific to the topic and relevant to the focus.

1.8.11B Research: Locate information using appropriate sources and strategies.

- Use traditional and electronic search tools.

NCTE Standards:

3. Apply a wide range of strategies to comprehend, interpret, evaluate and appreciate texts.
7. Conduct research by generating ideas and questions and posing problems. The students gather, evaluate and synthesize data from a variety of sources.
8. Use a variety of technological and informational resources to gather and synthesize data and create and communicate knowledge.

NETS Performance Indicators (Grades 6-8):

5. Apply productivity/multimedia tools and peripherals to support personal productivity, group collaboration and learning throughout the curriculum.
6. Design, develop, publish and present products (e.g., Web pages and videotapes) using technology to demonstrate and communicate curriculum concepts.

NETS Performance Indicators (Grades 9-12):

5. Use technology and resources for managing and communicating different information.
7. Routinely and efficiently use online resources to meet needs for collaboration, research, publications, communications and productivity.
8. Select and apply technology for research, information analysis, problem solving and decision making in content learning.

Internet Applications:

This project develops and hones Internet-based research skills.

Process:

Distribute *Project 1: Literary Newspaper Student Handout* and provide an overview. Explain to the students that they will use the Internet to research a specific work of literature, including its era, societal and historical elements significant to the text, and authorial intent. They will then design the front page of a newspaper that might have been published during the time period, using their research and their imaginations to create credible artifacts. After students have completed their projects, distribute copies to the class and have each student explain the content and style of the newspaper's front page.

Evaluation:

Evaluate students on their research and the originality shown in the layout and presentation of the "news" included in the project.

Extensions:

Direct the students to take a front page designed by one of their classmates and write a related "lead article" for an edition of the newspaper to be published a week after the original. Discuss how the political bias of newspapers often slants the content and tone of the articles, although editorializing should be reserved for the appropriate section of the paper. Direct students to choose a political position related to one of their articles (or that of a peer) and rewrite it as an editorial. When the articles are completed, encourage students to share and detect political influences within others' articles.

Technology Enrichment:

Recommend that the students convert their front pages into *Microsoft PowerPoint 2007* presentations. Direct them to open the *Word* file containing their front pages and then launch *PowerPoint*. Next, in *PowerPoint*, select the LAYOUT button from the HOME TAB, then choose the blank format shown in the third row. Since the students will have organized their newspaper layouts using text and picture frames, they can highlight and copy each frame, create a new slide in *PowerPoint*, then paste each article onto it. Animation and other visual and sound effects can be added to the *PowerPoint* file to enhance its presentation. In addition, students whose work reflects similar eras may collaborate and combine their articles into a single *PowerPoint* presentation.

Project 1: Literary Newspaper
Student Handout

- Decide which story or novel to use as the basis for the newspaper front page.

- Examine the organization, layout and content of the newspaper front pages provided by the teacher. Note any ideas that might be incorporated into the layouts for the projects.

- Launch the Web browser and access the following sites.

  http://www.penguinclassics.com
  Select USA, then READING GUIDES to discover nearly 50 detailed overviews of frequently taught literary works.

  http://www.lii.org/search/file/literature
  A wide range of resources about literature, texts and authors are presented in this librarian's index to the Internet.

  http://www.yahoo.com/Arts/Humanities/Literature
  This excellent Yahoo site has a great variety of literary links.

  http://www.sparknotes.com/
  Harvard students wrote these helpful book guides.

  Find information about the plot, setting, theme and author of the chosen book or story.

- Save photos and other graphics for the front page by positioning the mouse pointer over the desired image, then right-clicking the mouse button. Choose the appropriate command to save the picture to the hard disk drive.

- Launch *Microsoft Word 2007*. Using newspaper style (emphasis on who, what, where, when and why), write three or four articles for the front page. Remember, these articles should be approximately 250 words or less and based on fact rather than opinion. If desired, include editorials (opinion pieces) or other elements sometimes found on the front pages, such as brief weather reports or short news briefs. Make certain to label these with the appropriate headlines.

- Save the *Word* articles by choosing the MICROSOFT OFFICE  button located in the top left corner of the screen. Next, select SAVE, enter ARTICLES as the file name and then click the SAVE button in the lower-right corner.

- Now, format the front page. In *Word,* click on the MICROSOFT OFFICE button, select NEW, choose BLANK DOCUMENT in the New Document window and click CREATE.

At the top of the page, enter the newspaper title (masthead), making certain to include the city or town as part of the name. Highlight the title and, on the HOME TAB, select  in the corner of the FONT GROUP to open the Font dialog box. Choose the desired font, style and size, then click OK. With the title still selected, click the CENTER button in the PARAGRAPH GROUP. Click outside the title and move to the next line by pressing the ENTER key. Enter the day of the week, date and year under the paper's title. To achieve a realistic newspaper style, make the font smaller for this line by following the previous steps.

- Save this page in a file entitled FRONT PAGE.

- To add a banner headline across the top of the front page, from the INSERT TAB click the TEXT BOX button and choose DRAW TEXT BOX. Create a rectangular text box just below the title and date. Enter the desired headline and on the HOME TAB adjust the font, style and size as necessary. Resize the text box so that the text fits without excess space.

- Decide on the number of columns to appear on the front page (three is a good choice). Insert a text box following the steps above. Using the frame handles, resize the box as desired. Repeat this process until all the text boxes have been placed on the page. Use the corner handles to make all of the newspaper columns the same width and height.

- Usually the lead story in a newspaper goes in the right-hand column. Determine which of the stories is the most important, then minimize the FRONT PAGE file and open the ARTICLES file.

- Highlight the text of the lead article and select the COPY button on the HOME TAB. Then, minimize the ARTICLES file.

- Next, maximize the FRONT PAGE file, click within the appropriate text box, then select the PASTE button. Adjust the size of the text box as necessary to accommodate the article.

- Repeat the previous three steps, pasting the other articles into the text boxes.

- Type a headline above each article. Format the text so the headline is centered and the article is justified in the text boxes. Choose fonts, styles, and sizes as necessary.

- Click on a text box, select the FORMAT TAB and choose the SHAPE OUTLINE button from the TEXT BOX STYLES GROUP. Select NO OUTLINE so that the border on the text box does not show. Repeat for the remaining text boxes.

- Click the area where a graphic will be placed, then from the INSERT TAB choose the PICTURE button in the ILLUSTRATIONS GROUP. Navigate to the image retrieved earlier from the Internet, double-click the file name and the image will be inserted on the page. Select the graphic and resize it using the corner handles. The text will flow around the graphic. Center the graphic. Repeat for other graphics.

- Save and print the file. Exit *Word*.

Project 2: Essay Writing Guide Presentation Teacher Guide

Description:

Students use the Internet to research the essay-writing process. Using these data and the supplied template as a foundation, they prepare a multimedia presentation detailing the necessary steps to write a successful essay.

Grade Levels: 9-11

Suggested Time Allotment: Three to four class periods

Materials:

Web browser, *Microsoft Word 2007* and *Microsoft PowerPoint 2007*

ESSAY GUIDE TEMPLATE.POTX

Prerequisite Skills:

The students should be proficient in accessing Web sites and initiating Internet searches using Web browsers. In addition, they should have experience creating presentations using *Microsoft PowerPoint 2007*.

PA Academic Standards:

Grade 11:

1.4.11B Types of Writing: Write complex informational pieces (e.g., research papers, analyses, evaluations, essays).

- Use precise language and specific detail.
- Use relevant graphics (e.g., maps, charts, graphs, tables, illustrations**,** photographs).

1.5.11B Quality of Writing: Write using well-developed content appropriate for the topic.

- Gather, determine validity and reliability of, analyze and organize information.

1.6.11C Speaking and Listening: Speak using skills appropriate to formal speech situations.

- Pace the presentation according to audience and purpose.

- Adjust stress, volume and inflection to provide emphasis to ideas or to influence the audience.

1.6.11F Speaking and Listening: Use media for learning purposes.

- Use various forms of media to elicit information, to make a student presentation and to complete class assignments and projects.
- Create a multi-media (e.g., film, music, computer-graphic) presentation for display or transmission that demonstrates an understanding of a specific topic or issue or teaches others about it.

1.8.11B Research: Locate information using appropriate sources and strategies.

- Use traditional and electronic search tools.

1.8.11C Research: Organize, summarize and present the main ideas from research.

- Take notes relevant to the research topic.
- Give precise, formal credit for others' ideas, images or information using a standard method of documentation.
- Use formatting techniques (e.g., headings, graphics) to aid reader understanding.

NCTE Standards:

4. Adjust their use of spoken, written and visual language (e.g., conventions, style, vocabulary) to communicate effectively in a variety of settings.
7. Conduct research on issues and interests by generating ideas and questions and posing problems.
8. Use technological and informational resources (e.g., libraries, databases, computer networks, video) to gather and synthesize data as well as create and communicate knowledge.

NETS Performance Indicators (Grades 9-12):

2. Make informed choices among technology systems, resources and services.
7. Routinely and efficiently use online information resources for collaboration, research, publications, communications and productivity.
8. Select and apply technology for research, information analysis, problem solving and decision making in content learning.

Internet Applications:

Students perform focused searches on the Internet and gain experience in discriminating between resources of varying quality.

Process:

Ask the students to discuss the steps they use to write essays, perhaps using a recent assignment as an example. Establish that they use a writing process. Explain that most writers use a process that includes prewriting, arranging and organizing information, writing a rough draft, editing and revising, rewriting and proofreading. Distribute *Project 2: Essay Writing Guide Presentation Student Handout* and provide an overview of the project. Then have the students research the writing process and use the ESSAY GUIDE TEMPLATE.POTX to create *PowerPoint* presentations. Upon completion of the projects, they will present their *PowerPoint* slide shows to the class and compare and contrast the processes represented.

Evaluation:

In addition to the final presentation, evaluate the students on the depth of their research, the variety of useful sites they find, and the outline and notes they produce.

Extensions:

Ask the students to consider the content, coherence and visual appeal of the most effective presentations created by their classmates. Direct the students to work together to create a handout listing the characteristics for future reference.

Technology Enrichment:

Have the students review their *PowerPoint* presentations and consider ways to insert sound and movie files to support and enrich the content. Direct them to find appropriate files by using at least two major Internet search engines. Retain copies of the best presentations to use as future teaching tools.

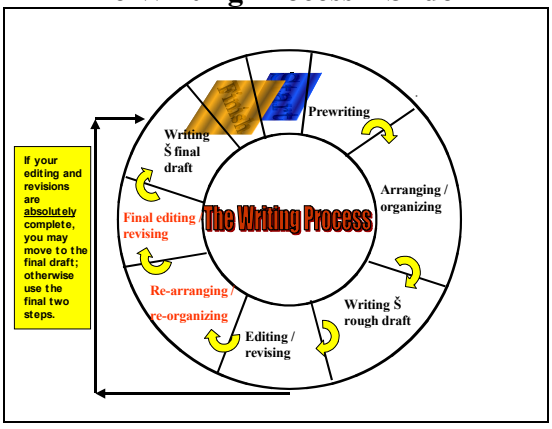
Project 2: Essay Writing Guide Presentation
Student Handout

- Launch the Web browser and gather information for an outline of the writing process from the following sites:

  http://rwc.hunter.cuny.edu/
  Hunter College Reading/Writing Center
  http://owl.english.purdue.edu/oldindex.html
  Purdue University's Online Writing Lab
  http://writing2.richmond.edu/writing/wweb.html
  University of Richmond Writer's Web

- Use a search engine to locate two more sites that provide useful information on the writing process. This information will be helpful when writing the outline. Take notes or print applicable pages. Examine "The Writing Process" and note the steps listed in the writing process.

The Writing Process – Slide 1



- Launch *Microsoft Word 2007*. Using the steps listed above, integrate the information found on the Internet to create an outline that provides clear, specific details on how to develop a successful essay. Use the outline tool in *Word* by choosing the VIEW TAB and selecting OUTLINE from the DOCUMENT VIEWS GROUP. Save the document as WRITING PROCESS OUTLINE.

- Launch *Microsoft PowerPoint 2007*, click the MICROSOFT OFFICE button and choose OPEN. Select ESSAY GUIDE TEMPLATE.POTX. On the HOME TAB, select NEW SLIDE. In the Default Design window that opened, select the text layout that will best display the prewriting outline on Slide 2. For example, to use the format incorporating a title and bullet points, choose the second choice in the first row.

- Enter *Prewriting* as the title and add the information from the first heading of the outline in the main text box. Task-switch between *Word* and *PowerPoint* to copy and

paste the appropriate text onto the slide. Use the icons on the FORMAT TAB and DESIGN TAB to format font, text size, and color. Insert clip art graphics by selecting the INSERT TAB and choosing CLIP ART. Repeat the same process for the next six slides, one for each step in the writing process. The layouts selected for different slides may be varied.

- Return to the first slide. To create a hot spot that will automatically display a slide when the user selects a step in the writing process, click on *Prewriting* in the upper-right section of the diagram and highlight the text. Select the INSERT TAB and choose ACTION from the LINKS GROUP. On the MOUSE CLICK TAB, choose the HYPERLINK TO radio button, click the drop-down arrow and select SLIDE. From the Hyperlink to Slide dialog box, choose PREWRITING and click OK. Click OK again.

- To keep the text color for the hyperlink black, choose the DESIGN TAB and click the COLORS drop-down arrow. Select CREATE NEW THEME COLORS. In the Create New Theme Colors dialog box, click the Hyperlink drop-down arrow, choose BLACK and click SAVE.

- From the INSERT TAB choose TEXT BOX to create a set of text box directions in the lower-right corner of the first slide. Enter the words *Click a step in the writing process to learn more about it.*

- To allow viewers to return to the first slide at any time during the slide show, create a button that will appear on every slide but the first. Click the second slide, then on the INSERT TAB click the arrow under the SHAPES button. Under Action Buttons, select the third button. Move the cursor to the lower-left corner of the slide and notice the cursor will take the shape of a plus sign. Draw a square so that the action button can be seen. The Action Settings dialog box will appear. If the Action Settings dialog box indicates *Hyperlink to First Slide*, click OK. If not, use the drop-down arrow to find *First Slide*, then select it. Click OK. Color the action button by clicking on the SHAPE FILL drop-down arrow on the FORMAT TAB. Resize and reposition the button. Copy the action button and then paste it onto the remaining slides.

- Insert a new slide at the end of the presentation by scrolling to Slide 8 and choosing NEW SLIDE from the HOME TAB. Choose the second layout in the first row. Enter a title for the new slide, such as *Writing Process Resources*. Enter the Web page addresses used as resources for the presentation. If desired, change the color of the hyperlinks by repeating the process used for the first slide.

- Finish the slide show by animating each slide (if desired), choosing slide transitions and modifying the font, text size, color, graphics and sound of the presentation as necessary. To animate the slides, from the ANIMATIONS TAB select CUSTOM ANIMATION. The Custom Animation Task Pane will appear. Select an element of the slide and click ADD EFFECT to add animation. If desired, add sounds to the animations by clicking on the numbered effects were created and going to EFFECT OPTIONS. Save the file.

- To watch the presentation, select the VIEW TAB and choose SLIDE SHOW. Click hot spots to view specific slides, then verify that each step of the writing process is correctly linked. Press the ESCAPE key to exit the slide show, then make corrections as needed and save the presentation. Exit *PowerPoint*.

Project 3: Reading Virtual Card Catalogue Teacher Guide

Description:

Students create a database of book evaluations and information. Depending on the technology skills of the students and the time available, students should build the database from scratch or modify the supplied electronic template. During this student project, student input is integrated into the main database and becomes part of the virtual card catalogue serving at the class, grade or school-wide level.

Grade Levels: 6-12

Suggested Time Allotment: Three or four periods, initially, to develop the database, with time available on a regular basis for updating as needed.

Materials:

Microsoft Access 2007 and *Microsoft Word 2007*
READING RESPONSES TEMPLATE.ACCDB

READING RESPONSES SAMPLE.ACCDB

Prerequisite Skills:

The students should have a basic understanding of databases and the ability to analyze information. They should be able to use *Microsoft Access 2007* to create, edit and format a database, sort and query data, and develop drop-down menus.

PA Academic Standards:

Grade 8:

1.1.8D Learning to Read Independently: Identify basic facts and ideas in text using specific strategies (e.g., recall genre characteristics, set a purpose for reading, generate essential questions as aids to comprehension and clarify understanding through rereading and discussion).

1.1.8G Learning to Read Independently: Demonstrate after reading understanding and interpretation of both fiction and nonfiction text, including public documents.

- Compare and contrast texts using themes, settings, characters and ideas.

1.3.8A Reading, Analyzing and Interpreting Literature: Read and understand works of literature.

1.3.8B Reading, Analyzing and Interpreting Literature: Analyze the use of literary elements by an author including characterization, setting, plot, theme, point of view, tone and style.

Grade 11:

1.1.11D Learning to Read Independently: Identify, describe, evaluate and synthesize the essential ideas in text. Assess those reading strategies that were most effective in learning from a variety of texts.

1.1.11G Learning to Read Independently: Demonstrate after reading understanding and interpretation of both fiction and nonfiction text, including public documents.

- Compare and contrast texts using themes, settings, characters and ideas.

1.3.11A Reading, Analyzing and Interpreting Literature: Read and understand works of literature.

1.3.11B Reading, Analyzing and Interpreting Literature: Analyze the relationships, uses and effectiveness of literary elements used by one or more authors in similar genres including characterization, setting, plot, theme, point of view, tone and style.

NCTE Standards:

2. Read literature from many periods and genres to build an understanding of the varied dimensions (e.g., philosophical, ethical, aesthetic) of human experience.
3. Apply a wide range of strategies to comprehend, interpret, evaluate and appreciate texts.
4. Use a variety of technological and informational resources (e.g., libraries, databases, computer networks and video) to gather and synthesize information and to create and communicate knowledge.
5. Participate as knowledgeable, reflective, creative and critical members of a variety of literacy communities.

NETS Performance Indicators (Grades 6-8):

5. Apply productivity/multimedia tools and peripherals to support personal productivity, group collaboration and learning throughout the curriculum.
8. Select and use appropriate tools and technology to accomplish a variety of tasks and solve problems.
9. Demonstrate an understanding of concepts underlying hardware, software and connectivity and of practical applications to learning and problem solving.

NETS Performance Indicators (Grades 9-12):

8. Select and apply technology for research, information analysis, problem solving and decision making in content learning.
10. Collaborate with peers, experts and others to contribute to a content-related knowledge base by using technology to compile, synthesize, produce and disseminate information, models and other creative works.

Process:

Distribute *Project 3: Reading Virtual Card Catalogue Student Handout* and provide an overview of the project. Explain to the students that they will create a database (or use the electronic template) to analyze, summarize, evaluate and rate the books they read at school and home. Then they will create and regularly update a collective database that will ultimately reflect the preferences of previous and current classes and provide guidance for future reading choices.

Evaluation:

Evaluate the students on three different aspects of the project. First, assess their ability to follow directions in the creation of the database. Second, judge the quality of their work in the data fields required for each book. Finally, consider the frequency and quality of their updates to the collective database.

Extensions:

Suggest that the students create a one-sentence review or "blurb" for each book they enter into the database.

Technology Enrichment:

Have the students trade the one-sentence reviews with others who have read the same book. Using either *Publisher* or *Word,* students create an advertisement for the book using the "blurbs" and persuasive writing techniques to spur the interest of other readers.

Project 3: Reading Virtual Card Catalogue
Student Handout

- Launch *Microsoft Access 2007* and open the READING RESPONSES TEMPLATE.ACCDB.

- Select the READING RESPONSES TABLE from the Navigation Pane on the left. Change to Design View by selecting the VIEW button on the HOME TAB. Examine the list of Field Names in the left-hand column. Determine which fields to retain, delete and add according to the teacher's instructions. To delete a field, click the gray box to the left of the item, and select the DELETE ROWS button from the TOOLS GROUP.

- To add a field, click the gray box one row below the desired position, then select the INSERT ROWS button from the TOOLS GROUP. Click the new row and enter the name of the new field. Practice deleting and inserting fields in the READING RESPONSES table. To save changes, select the SAVE button  on the QUICK ACCESS TOOLBAR in the top left corner of the screen.

- If necessary, reopen the READING RESPONSES table in DESIGN mode. Select the fields that will require more extensive information, such as plot summary and commentary. Position the arrow in the gray box to the left of the appropriate fields and click to highlight each in turn (i.e., plot summary and evaluation). Make sure that the data type (second column from left) for these fields is *memo* rather than *text.* To change the data type, position the cursor in the appropriate data-type field and left-click the mouse button. Click the drop-down arrow and choose the correct data type. Close the READING RESPONSES table by clicking the X button in the upper-right corner of the table frame. Choose YES when prompted to save changes.

- Right-click the READING RESPONSES DATABASE, choose RENAME and enter a new name for the database (e.g., *Your Name Reading Responses*).

- To enter information into the database, select the CREATE TAB, then choose FORM. Verify that DESIGN VIEW is selected by clicking the arrow under the VIEW BUTTON on the HOME TAB.

- Verify that all fields from YOUR NAME READING RESPONSES DATABASE appear on the form.

- Customize the database form to accommodate the new information. Note that all chosen fields and data boxes are selected. Click the space outside the form to deselect these fields. To move a data box, position the pointer over it, hold down the mouse button and drag to the desired location. To change the size, click the box and drag the handles at the edges. Experiment with the size and placement of the fields as needed to incorporate varying amounts of text.

- Continue to examine and adjust the format by switching between DESIGN VIEW and FORM VIEW. To switch views, click the arrow under the VIEW BUTTON. Remember to save changes each time the Design window is closed.

- Select the Form window and enter information about the first book. Use the TAB button to navigate between fields. Continue to build the database by entering information about subsequent titles on new forms. When all of the data has been entered, save the form as YOUR NAME READING RESPONSES TABLE (using your own name). Make certain that it is saved as a form.

- Open the READING RESPONSES DATABASE and select YOUR NAME READING RESPONSES TABLE (i.e, the file you created with your own name). In the Navigation Pane, choose TABLES and select the newly created database. Highlight one of the columns and choose the SORT ASCENDING BUTTON from the SORT & FILTER GROUP on the HOME TAB. Change the format of the database by choosing various buttons from the FONT GROUP on the HOME TAB and selecting the desired style selections. Close the table when finished, making certain to save the changes.

- Create individual book reports by selecting the CREATE TAB and choosing the REPORT WIZARD button from the REPORTS GROUP. In the Report Wizard, be certain that the correct database is listed in the Tables/Queries section. Select a field to include in the report and move it into the Selected Fields column by clicking the single right arrow. Repeat as needed. After moving the desired fields, click NEXT twice. At the Sort Order window, enter *title* and select NEXT. Choose the COLUMNAR and PORTRAIT radio buttons, then click NEXT. Under Style preferences, select OFFICE, then click NEXT.

- To see the results, choose PREVIEW THE REPORT, then click FINISH. To modify the report, select MODIFY THE REPORT'S DESIGN, then use the same methods to change the appearance of the report as those formerly used to design the form.

- Save the file and exit *Access.*

Project 4: Character Goals
Teacher Guide

Description:

Students choose a work of literature (preferably a play) and determine the primary goal of each of the central characters. Using each act of the play as a benchmark, they create a spreadsheet to reflect the progress of the characters in achieving these goals. From the spreadsheet, the students construct a chart representing each character's success or failure. The project culminates in a class presentation, with the students discussing the choices made in their presentations.

Grade Levels: 9-10

Suggested Time Allotment: Two class periods should be set aside for project creation, in addition to one for presentation.

Materials:

Microsoft Excel 2007

Classroom texts and notes as necessary

CHARACTER GOALS SAMPLE.XLSX

PA Academic Standards:

Grade 11:

1.3.11A Reading, Analyzing and Interpreting Literature: Read and understand works of literature.

1.3.11E Reading, Analyzing and Interpreting Literature: Analyze how a scriptwriter's use of words creates tone and mood, and how choice of words advances the theme or purpose of the work.

1.6.11A Speaking and Listening: Listen to others.

- Synthesize information, ideas and opinions to determine relevancy.

1.6.11C Speaking and Listening: Speak using skills appropriate to formal speech situations.

- Use a variety of sentence structures to add interest to a presentation.
- Pace the presentation according to audience and purpose.
- Adjust stress, volume and inflection to provide emphasis to ideas or to influence the audience.

1.6.11D Speaking and Listening: Contribute to discussions.

- Ask relevant, clarifying questions.
- Respond with relevant information or opinions to questions asked.
- Listen to and acknowledge the contributions of others.

1.6.11F Speaking and Listening: Use media for learning purposes.

- Create a multi-media (e.g., film, music, computer-graphic) presentation for display or transmission that demonstrates an understanding of a specific topic or issue or teaches others about it.

NCTE Standards:

3. Apply a wide range of strategies to comprehend, interpret, evaluate and appreciate texts. The students will draw upon their prior experience, such as interactions with other readers and writers, knowledge of word meaning, word identification strategies and understanding of textual features.
7. Conduct research by generating ideas and questions and posing problems. They gather, evaluate and synthesize data from a variety of sources.
8. Use a variety of technological and informational resources to gather and synthesize data and to create and communicate knowledge.

NETS Performance Indicators (Grades 9-12):

2. Make informed choices among technology systems, resources and services.
8. Select and apply technology for research, information analysis, problem solving and decision making in content learning.
10. Collaborate with peers, experts and others to contribute to a content-related knowledge base by using technology to compile, synthesize, produce and disseminate information, models and other creative works.

Internet Applications:

Students should be able to determine the characters' main goals from their own study of the text, but they may use Internet resources to assist them if necessary.

Process:

After studying a literary work (preferably a play or other text with clearly defined sections), ask the students to make a list of at least three important characters. Next, have them determine the goal or objective each character hopes to accomplish during the course of the story. After the students complete their lists, distribute *Project 4: Character Goals Student Handout* and review the project. Tell the students that they will present their work to the class and lead a discussion based on the choices made in their presentations.

Evaluation:

Evaluate the students on the logic of the goals they choose for their characters and on their understanding of each character's progress. Assess the spreadsheets and charts, as well as the manner in which the students defend their choices in class discussion.

Extensions:

The creation of the spreadsheet and the chart are meant to serve as the foundation for a discussion about the chosen text. After the students complete their projects, have them discuss and defend their own choices, as well challenge the choices of their peers.

Technology Enrichment:

Ask the students to go back to the INSERT TAB in their *Excel* spreadsheet and experiment with different chart types. Would another style of chart formatting be as effective as the line chart? Ask them to consider both their audience and the content as they test other chart types.

Project 4: Character Goals Project
Student Handout

- After closely studying a literary text (preferably a play), make a list of at least three important characters. Next, determine the primary goal that each character hopes to accomplish during the course of the story. It is important that the work chosen has clearly defined sections (i.e. acts, parts, or chapters) so that the characters' progress toward achieving these goals can be clearly assessed.

- Launch *Microsoft Excel 2007*. In cell A1, enter *Character*. Enter the sections of the work (*Act I*, *Part Two*, *Chapter Five*) starting in cell B1. Continue until all of the defined sections are entered in a cell in row 1. Use the tab or the arrow keys to navigate between cells.

- Enter the name of the first selected character in cell A2 and place the name of the next character in cell A3. Continue entering the names of other characters into subsequent column A cells until finished.

- Move to the first empty column on the right and enter *Primary Goal* in the first cell. Enter the goal for each character in the appropriate cell. Highlight the column by selecting the column heading and then choose the FORMAT button from the CELLS GROUP on the HOME TAB. Select AUTOFIT COLUMN WIDTH to adjust the width of the columns to accommodate the text.

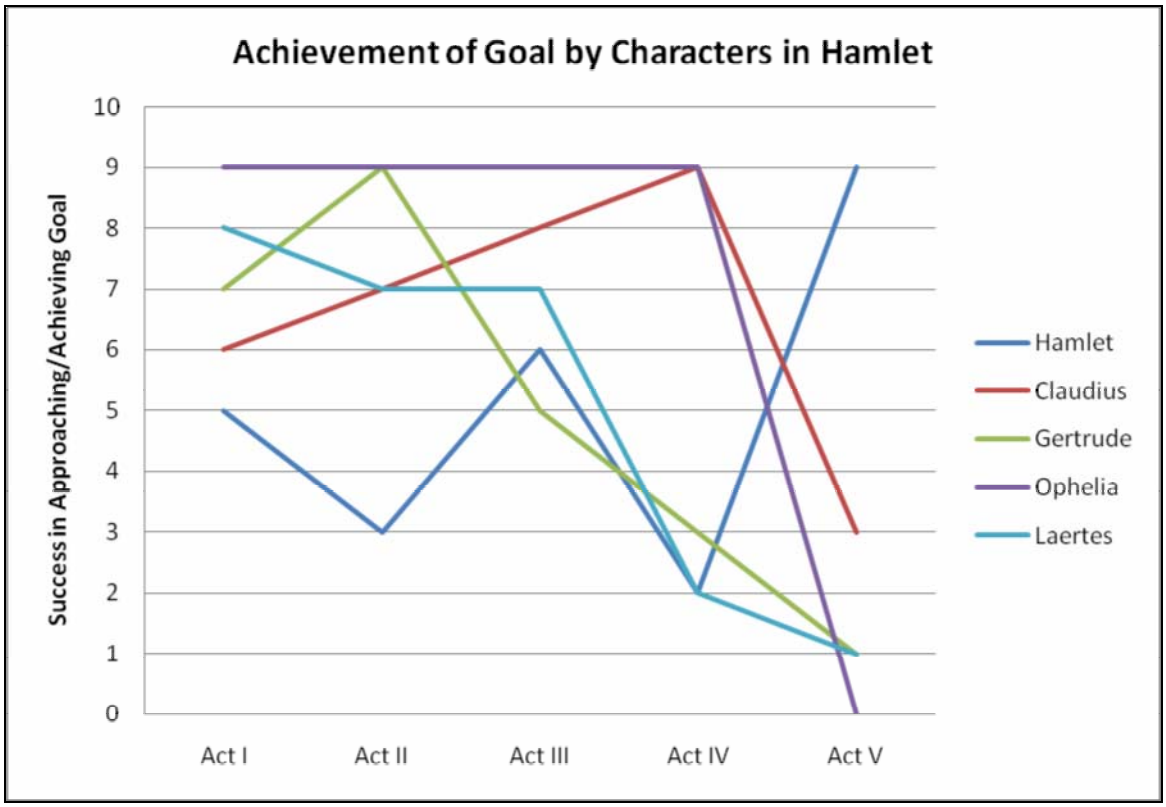
- Using a scale from zero to 10, with zero being the least amount of progress and 10 the most amount of progress, determine a score for each character's success. Remember to assess the progress shown during each defined section of the work. Enter the score in the appropriate cell for each character and each act or chapter of the text. Examine the sample below.

Sample of "Character Goal" spreadsheet for Hamlet

Character	Act I	Act II	Act III	Act IV	Act V	Primary Goal
Hamlet	5	3	6	2	9	to avenge his father's murder, restoring balance
Claudius	6	7	8	9	3	to consolidate power by removing any threats
Gertrude	7	9	5	3	1	to maintain family peace by denying responsibility
Ophelia	9	9	9	3	0	to be a good daughter and friend
Laertes	8	7	7	2	1	to avoid responsibility and enjoy himself

-
- Highlight the data found in cells A1 through F6, or whatever range encompasses the characters and the different acts, sections or chapters. Do not include the column with the Primary Goal.
- From the INSERT TAB, select the LINE button from the CHARTS GROUP and choose a line chart style (the first chart in the first row is a good choice).
- From the DESIGN TAB, scroll through the options for chart layouts. Be certain to choose one that includes a chart title and names for the x and y axes as necessary. Layout 1 is a good option.
- Enter the correct chart title and titles for the axes as appropriate.
- Compare the created chart with the sample below.

Sample of "Character Goal" line chart for Hamlet



- Adjust the size and position of the line chart on the spreadsheet. Save the file and print on a color printer if available. Exit *Excel*.

Project 5: Web Game Show
Teacher Guide

Description::

The students create a Web site containing a multiple-choice quiz in a game show format. Using the supplied template as a design for the opening game board, they develop the Web page and then complete the site with links to new pages. The students serve as masters of ceremony and scorekeepers of their games and present them to the class.

Grade Levels: 6-10

Suggested Time Allotment: Three class periods

Materials:

Web browser and *Microsoft SharePoint Designer 2007*

GAME SHOW TEMPLATE.HTM

PUNCTUATION QUIZ TEMPLATE.HTM

Classroom materials as needed

Prerequisite Skills:

The students should be proficient in initiating an Internet search and accessing Web sites. In addition, they should have some experience designing Web pages using *Microsoft SharePoint Designer 2007.*

PA Academic Standards:

Grade 8:

1.5.8B Quality of Writing: Write using well-developed content appropriate for the topic.

- Gather, determine validity and reliability of and organize information.

1.5.8F Quality of Writing: Edit writing using the conventions of language.

- Spell common, frequently used words correctly.
- Use capital letters correctly.
- Punctuate correctly (periods, exclamation points, question marks, commas, quotation marks, apostrophes, colons, semicolons, parentheses).

- Use nouns, pronouns, verbs, adjectives, adverbs, conjunctions, prepositions and interjections properly.

1.6.8F Speaking and Listening: Use media for learning purposes.

- Create a multimedia (e.g., film, music, computer-graphic) presentation for display or transmission.

1.8.8B Research: Locate information using appropriate sources and strategies.

- Select essential sources (e.g., dictionaries, encyclopedias, other reference materials, interviews, observations, computer databases).
- Use traditional and electronic search tools.

Grade 11:

1.5.11B Quality of Writing: Write using well-developed content appropriate for the topic.

- Gather, determine validity and reliability of, analyze and organize information.

1.5.11F Quality of Writing: Edit writing using the conventions of language.

- Spell all words correctly.
- Use capital letters correctly.
- Punctuate correctly (periods, exclamation points, question marks, commas, quotation marks, apostrophes, colons, semicolons, parentheses, hyphens, brackets, ellipses).
- Use nouns, pronouns, verbs, adjectives, adverbs, conjunctions, prepositions and interjections properly.

1.6.11F Speaking and Listening: Use media for learning purposes.

- Create a multi-media (e.g., film, music, computer-graphic) presentation for display or transmission that demonstrates an understanding of a specific topic or issue or teaches others about it.

1.8.11B Research: Locate information using appropriate sources and strategies.

- Select sources appropriate to the breadth and depth of the research (e.g., dictionaries, thesauruses, other reference materials, interviews, observations, computer databases).
- Use traditional and electronic search tools.

NCTE Standards:

4. Adjust use of spoken, written and visual language (e.g., conventions, style, vocabulary) to communicate effectively in a variety of settings.

7. Conduct research by generating ideas and questions and posing problems. The students gather, evaluate and synthesize data from a variety of sources.
8. Use a variety of technological and informational resources to gather and synthesize data and to create and communicate knowledge.

NETS Performance Indicators (Grades 6-8):

5. Apply productivity/multimedia tools and peripherals to support personal productivity, group collaboration and learning throughout the curriculum.
6. Design, develop, publish and present products (e.g., Web pages, videotapes, etc.) using technology to demonstrate and communicate curriculum concepts.
7. Select and use appropriate tools and technology to problem solve and accomplish accomplish a variety of tasks.

NETS Performance Indicators (Grades 9-12):

2. Make informed choices among technology systems, resources and services.
8. Select and apply technology for research, information analysis, problem solving and decision making in content learning.

Internet Applications:

This project will build Web development techniques and hone Internet research skills.

Process:

Check the Web sites listed on the student handout to determine if they are accessible. Install the Web Game Show templates on the school server or make them available on removable disks. Explain that the students will be creating interactive game shows to apply and assess their knowledge of writing mechanics. After finishing their projects, they will act as masters of ceremony, leading the class through the games. Distribute *Project 5: Web Game Show Student Handout* and review the project.

Evaluation

Before they finalize each section of their projects, ask the students to provide evaluation copies of the specific items they will incorporate into their game shows. Evaluate the finished projects on content, layout, presentation and ease of navigation.

Extensions

Ask students to consider other technology applications that would help them create a Web-based game show. After viewing all of the presentations, ask them what adaptations might make their sites even more effective and encourage them to improve their sites based on reflection and feedback.

Technology Enrichment

Ask the students to convert their game show Web sites into *Microsoft PowerPoint* presentations. Encourage them to consider the limitations and the opportunities this application provides in conveying content.

Project 5: Web Game Show
Student Handout

- Launch the Web browser. To acquire information for the question and answer components of the Web Game Show, access the Web sites listed below. Print any Web pages that appear useful.

  http://www.grammarbook.com/
  The Blue Book of Grammar and Punctuation is an award-winning source.

  http://www.english.uiuc.edu/cws/wworkshop/
  The University of Illinois Writer's Workshop offers clear grammar guidelines and rules.

  http://www.bartleby.com/141/
  William Strunk's book, *The Elements of Style*, is a classic reference tool.

- In addition, consult classroom texts to help construct the punctuation, grammar and usage quizzes.

- Open the PUNCTUATION QUIZ TEMPLATE.HTM to view as a Web page. As in the game Jeopardy©, the quiz format is to present an answer, then each player must determine the correct question from four possibilities. Two completed sample answer-and-question sets are provided. Following the pattern, create three new sets for this quiz on paper. Then develop five answer-and-question sets for the grammar quiz and five for the usage quiz. Close the Web browser.

- Launch *Microsoft SharePoint Designer 2007*. Select FILE → NEW → WEBSITE and on the WEBSITE TAB in the New dialog box, choose ONE PAGE WEB SITE and click OK.

- Click the NEW DOCUMENT icon  on the toolbar to add eight new pages that appear as tabs the top of the screen.

- Select VIEW → FOLDER LIST then double-click DEFAULT.HTM in the Folder List on the left side of the screen. Select INSERT → FILE and open the GAME SHOW TEMPLATE.HTM.

- Click the UNTITLED_1 TAB to open a new blank page and enter *Punctuation* as the title. Now create five interactive buttons on the page, one for each answer-and-question set. Select INSERT → INTERACTIVE BUTTON, choose a button style, enter a label (*Answer 1*, *Answer 2)* and format the text. Repeat until there are five buttons.

- For titles on pages 2 and 3, enter *Grammar* and *Usage* respectively. Repeat the process above from the Punctuation page, creating an interactive button for each set of answers and questions and labeling the buttons accordingly. Format the font, text size, color, animation, graphics and sound on these pages.

- On page 4, insert PUNCTUATION QUIZ TEMPLATE.HTM and enter the three additional answer-and-question sets created for the Punctuation page from your paper. Title the page appropriately. Insert the PUNCTUATION QUIZ template then replace the text with the Grammar and Usage question-and-answer sets from your paper on pages 5 and 6, respectively. Format these pages as desired.

- Open page 7, and enter *Correct Response* as the title, then include a message informing the contestant that the right response has been chosen. If more than one correct response page is necessary, insert a new page, enter the appropriate message and format as desired.

- Open page 8 and enter the title, *Incorrect Response*. Enter a message informing the contestant that the wrong response has been chosen. If more than one incorrect response page is necessary, insert a new page, enter the appropriate message and format as desired.

- Return to page 4, Punctuation. For each of the possible responses, create a hyperlink either to the correct response or the incorrect response pages as appropriate.

- Repeat the process for page 5, Grammar, and page 6, Usage, so that all possible responses are hyperlinked to the correct pages.

- Make any changes to the format of individual Web pages and the site as a whole.

- Save the Web site in a file with a new name, so that it does not overwrite the GAME SHOW.HTM template.

- Select FILE → PREVIEW IN BROWSER and choose the appropriate Web browser. Navigate through the Web site to ensure that the hyperlinks and formatting function correctly. Make any necessary adjustments or changes.

- Exit *SharePoint Designer 2007*.

Project 6: Literary Trading Cards
Teacher Guide

Description:

The students use desktop publishing software to create sets of trading cards based on a work of literature studied in class. The two-sided cards are organized by common literary elements, such as character, setting, conflict and symbolism. Each card includes an image on one side and an explanation or description on the other. The supplied template provides the card format as well as a finished sample. The class uses the Internet and other resources to find appropriate images and data to complete the cards.

Grade Levels: 7-9

Suggested Time Allotment: Three class periods

Materials:

Web browser and *Microsoft Publisher 2007*
LITERARY TRADING CARD TEMPLATE.PUB
LITERARY TRADING CARD SAMPLE.PUB

Prerequisite Skills:

The students should be familiar with desktop publishing and the basic functions of *Microsoft Publisher 2007.* In addition, they should be able to conduct Internet searches.

PA Academic Standards:

Grade 8:

1.1.8G Learning to Read Independently: Demonstrate after reading understanding and interpretation of both fiction and nonfiction text, including public documents.

- Make extensions to related ideas, topics or information.

1.3.8A Reading, Analyzing and Interpreting Literature: Read and understand works of literature.

1.8.8B Research: Locate information using appropriate sources and strategies.

- Determine valid resources for researching the topic, including primary and secondary sources.
- Evaluate the importance and quality of the sources.
- Use traditional and electronic search tools.

Grade 11:

1.1.11G Learning to Read Independently: Demonstrate after reading understanding and interpretation of both fiction and nonfiction text, including public documents.

- Make extensions to related ideas, topics or information.

1.3.11A Reading, Analyzing and Interpreting Literature: Read and understand works of literature.

1.8.11B Research: Locate information using appropriate sources and strategies.

- Determine valid resources for researching the topic, including primary and secondary sources.
- Evaluate the importance and quality of the sources.
- Use traditional and electronic search tools.

NCTE Standards:

3. Apply a wide range of strategies to comprehend, interpret, evaluate and appreciate texts. The students draw upon their prior experience, such as interactions with other readers and writers, knowledge of word meaning, word identification strategies and understanding of textual features.
6. Apply knowledge of language structure, language conventions (e.g., spelling and punctuation), media techniques, figurative language and genre to create, critique and discuss print and non-print texts.

NETS Performance Indicators (Grades 6-8):

4. Use content-specific tools, software and simulations (e.g., environmental probes, graphing calculators, exploratory environments, Web tools) to support learning and research.
5. Apply productivity/multimedia tools and peripherals to support personal productivity, group collaboration and learning throughout the curriculum.
8. Select and use appropriate tools and technology to problem solve and accomplish a variety of tasks.

NETS Performance Indicators (Grades 9-12):

2. Make informed choices among technology systems, resources and services.
7. Routinely and efficiently use online information resources to meet needs for collaboration, research, publications, communications and productivity and decision making in content learning.

Internet Applications:

This project will utilize Internet research skills.

Process:

Copy and save the LITERARY TRADING CARD TEMPLATE.PUB on the school server or on a removable disk. Ask the students to open the template and note the different elements on the two sides. Distribute *Project 6: Literary Trading Cards Student Handout* and review the project with the students.

Evaluation:

Evaluate the cards based on the originality of the subject matter, the image quality and the data the students incorporate for their projects. The final set of trading cards should reflect an understanding of the text's key elements.

Extensions:

Have the students work in small groups to compare individual trading cards, make decisions about duplications and combine cards to produce a group set that provides an effective overview of the selected work.

Technology Enrichment:

Ask the students to create a *Microsoft PowerPoint 2007* presentation using the card fronts, which contain the images, as slides. Suggest that they record soundtracks, complete with music and oral presentations of the information included on the backs of the cards.

Project 6: Literary Trading Cards
Student Handout

- Decide on a literary work that will be the focus of the five trading cards to be created. Choose a subject for each of the cards and decide the type of picture or graphics that would best reflect the subject. Also, consider the information or explanation that would be appropriate for side two of each card.

- Launch *Microsoft Publisher 2007* and open the LITERARY TRADING CARD TEMPLATE.PUB. Select all areas of the template at once by holding down the CTRL key and pressing A. With the copy highlighted, hold down the CTRL key again, and press C to copy the text. Now select the NEW button  on the Standard Toolbar and the Format Publication Task Pane will appear on the left side of the screen. In the Page Size section, click the CHANGE PAGE SIZE button and choose Letter Landscape, the first option in the third row. Hold down the CTRL key once more, and press V to paste the text. Save the copy as *Literary Trading Card Template 2*. Minimize the template copy and close the original template.

- Launch the Web browser and access a search engine to locate an appropriate picture or graphic for the first card. Right-click the image and save it to the hard disk drive or on a disk as directed.

- Maximize the template copy in *Publisher*, click the border on the front of the card and delete it. To insert a new border select INSERT → DESIGN GALLERY OBJECT. From the list in the Design Gallery, click on BORDERS. Select a border and click on INSERT OBJECT. Size the border to fit the frame of the front of the card. Format the color scheme as desired.

- Delete the picture frame from the front of the card. Insert the new picture chosen for this card. Size it to fit the card.

- Highlight the text in the larger text frame under the image on the card front and delete it. Enter appropriate text to identify the image and to explain what element of fiction it represents. Highlight the text in the smaller text frame on the bottom of the front of the card, delete it, and enter the name of the author and work.

- Format the color and pattern of the background and text boxes of the front of the card as desired. Select FORMAT → TEXT BOX and make an appropriate choice, or use the FILL COLOR tool on the formatting toolbar. Next, adjust the type style and size as appropriate. Use the Formatting toolbar or change all the fonts at once by selecting FORMAT → FONT SCHEMES and choosing a style.

- Highlight the text on the back of the card. Enter the element of fiction, the title and the author at the top of the card back and the necessary information or explanation on the rest of the card back.
- Save the new trading card under a specific file name such as *Huck Finn Card 1*.
- Repeat these steps for cards two through five.
- Review the appearance and content of each card and make any desired changes.
- Print all five cards, using a color printer if available.
- Make sure each of the cards is saved. Exit *Publisher*.
- Cut and fold each card so that the front and the back of the card are back to back. Paste the two sides together, then mount them on thin cardboard, or laminate them if desired.

Project 7: Word Soup Vocabulary Project Teacher Guide

Description:

The students develop and use a table of Latin and Greek prefixes and roots to generate vocabulary words. The project encourages them to combine the suffixes and roots in creative ways, even if resulting combinations are not legitimate words. The supplied template provides a sample format, and the student handout suggests ways to check the validity of newly created words.

Grade Levels: 7-10

Suggested Time Allotment: Two class periods

Materials:

Web browser and *Microsoft Word 2007*

WORD SOUP TEMPLATE.DOCX

PA Academic Standards:

Grade 8:

1.1.8C Learning to Read Independently: Use knowledge of root words as well as context clues and glossaries to understand specialized vocabulary in the content areas during reading. Use these words accurately in speaking and writing.

1.1.8E Learning to Read Independently: Expand a reading vocabulary by identifying and correctly using idioms and words with literal and figurative meanings. Use a dictionary or related reference.

1.7.8A Characteristics and Functions of the English Language: Describe the origins and meanings of common, learned and foreign words used frequently in English language (e.g., carte blanche, faux pas).

1.7.8C Characteristics and Functions of the English Language: Identify new words that have been added to the English language over time.

1.8.8B Research: Locate information using appropriate sources and strategies.

- Select essential sources (e.g., dictionaries, encyclopedias, other reference materials, interviews, observations, computer databases).
- Use tables of contents, indices, key words, cross-references and appendices.
- Use traditional and electronic search tools.

Grade 11:

1.1.11C Learning to Read Independently: Use knowledge of root words and words from literary works to recognize and understand the meaning of new words during reading. Use these words accurately in speaking and writing.

1.1.11E Learning to Read Independently: Establish a reading vocabulary by identifying and correctly using new words acquired through the study of their relationships to other words. Use a dictionary or related reference.

1.7.11C Characteristics and Functions of the English Language: Explain and evaluate the role and influence of the English language within and across countries.

1.8.11B Research: Locate information using appropriate sources and strategies.

- Select sources appropriate to the breadth and depth of the research (e.g., dictionaries, thesauruses, other reference materials, interviews, observations, computer databases).
- Use tables of contents, indices, key words, cross-references and appendices.
- Use traditional and electronic search tools.

NCTE Standards:

6. Apply knowledge of language structure, language conventions (e.g., spelling and punctuation), media techniques, figurative language and genre to create, critique and discuss print and non-print texts.
8. Use a variety of technological and informational resources (e.g., libraries, databases, computer networks and video) to gather and synthesize information and to create and communicate knowledge.

NETS Performance Indicators (Grades 6-8):

5. Design, develop, publish and present products (e.g., Web pages, videotapes, etc.) using technological resources to demonstrate and communicate curriculum concepts.
8. Select and use appropriate tools and technology to problem solve and accomplish a variety of tasks.

NETS Performance Indicators (Grades 9-12):

7. Routinely and efficiently use online information resources to meet needs for collaboration, research, publications, communications and productivity.
8. Select and apply technology tools for research, information analysis, problem solving and decision making in content learning.

Internet Applications:

The students will use an Internet search engine to find word prefixes and roots. Then they will consult an online dictionary to check the validity of their created words.

Process:

Copy and save the WORD SOUP TEMPLATE.DOCX on the school server or onto a removable disk. The students should create several new words to learn how the spell check and online dictionary function. Suggest that they may want to adapt the format of the model to their own needs or create a format of their own. Instruct them to close the template. Distribute *Project 7: Word Soup Student Handout* and review the process. Explain to the students that they will exchange their completed projects for testing.

Evaluation:

Evaluate the students on their abilities to create legitimate new words using the template. In addition, assess the format and functionality of their results.

Extensions:

When they read, the students should watch for words that come from the roots they used in this project. Have them keep a list of such words and the sentence or phrase in which they found them. The students can speculate about word definitions based on knowledge of the root and the specific context.

Technology Enrichment:

After selecting several legitimate new words from this project, direct the students to launch their Web browsers, and to go to **http://fiction.eserver.org/ (**The English Server's Fiction collection). Open a work of fiction, choose EDIT → FIND (or FIND ON THIS PAGE) and enter the desired word. By clicking NEXT in the dialog box and keeping count, the students can determine the number of times their word has been used in a specific work.

Project 7: Word Soup Vocabulary Project
Student Handout

- Open the Web browser and initiate a search for Latin and Greek prefixes and roots. Print several of these lists to serve as source material for this project. Textbooks and vocabulary books in the classroom may also be helpful.

- Launch *Microsoft Word 2007*. From the INSERT TAB, choose the TABLE button and select INSERT TABLE to create a table in the document. Set the table with four columns, and one row for each root. To insert an additional row, highlight the row in the table and select the INSERT BELOW button from the ROWS AND COLUMNS GROUP on the LAYOUT TAB. Repeat this step each time you need to add information to the table. This information will serve as the database for the project. Standardize the width of each column and enter a title (i.e. *Prefix, Meaning, Root* and *Meaning*). To create a special border between the second and third columns, highlight the two middle columns and, from the DESIGN TAB select the LINE STYLE button in the BORDERS GROUP. Choose a style and then click the LINE WEIGHT button to select the line thickness. Choose the BORDERS drop-down arrow and click INSIDE VERTICAL BORDER. The line between the second and third columns should now have the chosen line style and weight. Refer to the WORD SOUP TEMPLATE.DOCX for help if necessary.

- Enter the chosen prefixes and their meanings in the first two columns of the newly created table, one per line. Enter the selected roots and their meanings in the last two columns of the table. Avoid mixing Latin and Greek roots in the same table.

- To add a second table to the page, position the cursor below the first table, and press the ENTER key several times. From the INSERT TAB, choose the TABLE button and select INSERT TABLE. The new table should contain three columns and 10 to 15 rows. Set the first two columns at the same width, but make the third column narrow. Be certain that both tables fit on one page.

- Enter a title for each of the three columns (e.g. *New Word, Assumed Meanin*g and *Correct?*).

- Center and align the two tables, leaving enough space for a large title at the top and a smaller title in between the tables.

- From the INSERT TAB, choose SHAPES and select the right brace from the last row under Basic Shapes. Draw the brace to the right side of the second table and stretch it so that it is parallel to the entire table.

- From the INSERT TAB add a WordArt title or create a text box, then enter *Check Dictionary* to the right of the right brace symbol.

- Create a hyperlink leading from *Check Dictionary* to an online dictionary such as **www.yourdictionary.com** – an easy-to-use dictionary for quick word checks. To insert a hyperlink highlight the text and, on the INSERT TAB, choose HYPERLINK then enter the address of the chosen Web site and click OK.

- Select WordArt from the TEXT GROUP on the INSERT TAB and choose a style, font and point size for the title, *Word Soup*. From the FORMAT TAB, select the TEXT WRAPPING button in the ARRANGE GROUP and choose IN FRONT OF TEXT. Position the WordArt at the top of the page, adjusting size and color.

- Choose a title (such as *Created Words* or *Generated Words*) for the second table, using WordArt or a text box. If using a WordArt title, select the TEXT WRAPPING button in the ARRANGE GROUP on the FORMAT TAB and choose IN FRONT OF TEXT. Position the title between the two tables and adjust its size and color.

- Review the document and make any necessary adjustments. From the MICROSOFT OFFICE button select PRINT then choose PRINT PREVIEW to evaluate the layout.

- Select the MICROSOFT OFFICE button and click SAVE, then create a file name for the document.

- Using the completed *Word Soup* document, create as many words as possible with the supplied prefixes and roots. Try to avoid simple or familiar words; be creative. For each new word, enter a probable definition.

- To reveal the created words which are legitimate and also the ones which are not, on the REVIEW TAB choose the SPELLING AND GRAMMAR button. For every real word created, enter *Y* in the *Correct?* column. For incorrect words, enter *N*.

- To check definitions, copy the word in question, click the hyperlink CHECK DICTIONARY and paste the word in the box provided.

- Sort the new words by highlighting the right column, then choosing the SORT button on the HOME TAB, selecting either ASCENDING or DESCENDING and clicking OK.

- Save the completed table under a new file name, print it, and exit *Word*.

Project 8: Chamber of Commerce Web Site Teacher Guide

Description:

Students develop a multi-page Web site based on a work of literature and modeled on a representative chamber of commerce site. The first phase of the project involves an Internet search for typical town or city sites. The students then create a Web site, choosing a location and time period reflected in the chosen literary work. Gathering information for the Web site involves further Internet research.

Grade Levels: 9-11

Suggested Time Allotment: Three class periods and homework time

Materials:

Web browser and *Microsoft SharePoint Designer 2007*

Prerequisite Skills:

Students should be able to conduct Internet research and be familiar with Web page design using *SharePoint Designer 2007*.

PA Academic Standards:

Grade 11:

1.2.11A Reading Critically in All Content Areas: Read and understand essential content of informational texts and documents in all academic areas.

- Differentiate fact from opinion across a variety of texts by using complete and accurate information, coherent arguments and points of view.
- Distinguish between essential and nonessential information across a variety of sources, identifying the use of proper references or authorities and propaganda techniques where present.

1.4.11B Types of Writing: Write complex informational pieces (e.g., research papers, analyses, evaluations, essays).

- Use relevant graphics (e.g., maps, charts, graphs, tables, illustrations, photographs).

1.4.11C Types of Writing: Write persuasive pieces.

- Include convincing, elaborated and properly cited evidence.
- Develop reader interest.

1.5.11B Quality of Writing: Write using well-developed content appropriate for the topic.

- Write fully developed paragraphs that have details and information specific to the topic and relevant to the focus.

1.6.11F Speaking and Listening: Use media for learning purposes.

- Evaluate the role of media in focusing attention and forming opinions.
- Create a multi-media (e.g., film, music, computer-graphic) presentation for display or transmission that demonstrates an understanding of a specific topic or issue or teaches others about it.

1.8.11B Research: Locate information using appropriate sources and strategies.

- Determine valid resources for researching the topic, including primary and secondary sources.
- Use traditional and electronic search tools.

NCTE Standards:

6. Apply knowledge of language structure, language conventions (e.g., spelling and punctuation), media techniques, figurative language, and genre to create, critique, and discuss print and non-print texts.
7. Conduct research by generating ideas and questions and posing problems. The students gather, evaluate and synthesize data from a variety of sources.
8. Use a variety of technological and informational resources (e.g., libraries, databases, computer networks and video) to gather and synthesize information and to create and communicate knowledge.

NETS Performance Indicators (Grades 9-12):

2. Make informed choices among technology systems, resources and services.
7. Routinely and efficiently use online information resources for collaboration, research, publications, communications and productivity.
8. Select and apply technology for research, information analysis, problem solving and decision making in content learning.
10. Collaborate with peers, experts, and others to contribute to a content-related knowledge base by using technology to compile, synthesize, produce and disseminate information, models and other creative works.

Internet Applications:

The students will refine Internet research skills and learn basic Web site design.

Process:

Explain to the students that many localities use Web sites in order to attract businesses, new residents and tourists. Discuss some of the advantages and disadvantages of this technique as a marketing tool. Distribute *Project 8: Chamber of Commerce Web Site Student Handout* and review the project. The students should examine the sample home page on the handout for possible ideas. Suggest that the project will allow them to be both creative and, if they wish, humorous in their approach.

Evaluation:

Evaluate the students on their Internet research, the format they develop for their chamber of commerce Web sites and the quality of information they develop for linked pages.

Extensions:

This project provides a natural segue to a discussion of setting in literature, specifically, how and why an author establishes a particular mood or feeling. The students should consider how effectively they reflect the tone of the chosen text in their Web sites.

Technology Enrichment:

Ask the students to design a home page for one of the major characters in the text selected for this project. In addition to content and format, students should consider what hyperlinks would be appropriate on the home page.

Project 8: Chamber of Commerce Web Site
Student Handout

- Following the teacher's instructions, decide on a geographical location for the subject of the Web site, based on the selected literary work.

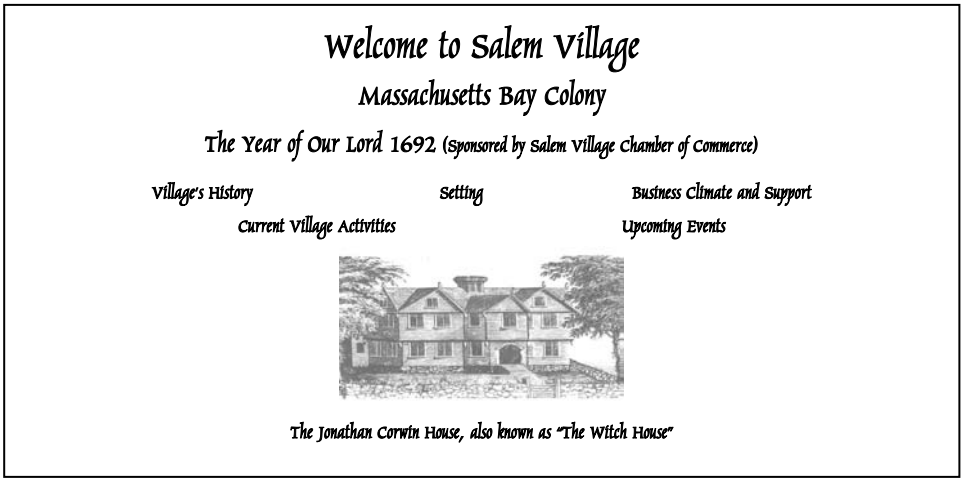
- Launch the Web browser and initiate an Internet search for the chamber of commerce Web sites of several cities and towns. Note the format, graphics and hyperlinks that typically occur on these pages. Bookmark the sites that seem the most helpful.

- Determine the types of introductory information, supporting topics, hyperlinks and graphics to be used when creating the new chamber of commerce Web site. Sketch out a picture of the different elements of the home page to use as a guide.

- Launch *Microsoft SharePoint Designer 2007*. Select FILE → NEW → WEBSITE and on the WEBSITE TAB in the New dialog box, choose ONE PAGE WEB SITE and click OK.

- Double-click DEFAULT.HTM in the Navigation Pane on the left side of the screen. If the Navigation Pane is not visible, select VIEW → NAVIGATION PANE. On the new page (DEFAULT.HTM) enter *Chamber of Commerce Home Page*.

- Following the sketch detailed above, enter text, graphics and design elements, such as a background or theme, on the home page. To add a background, first select FORMAT → BACKGROUND, choose a color by clicking the BACKGROUND drop-down arrow, then click OK. Adjust spacing, font, size and design elements as desired. Note the sample below.



Sample chamber of commerce home page, based on Arthur Miller's "The Crucible" and the witch trials of 1692.

- Using the NEW DOCUMENT  button on the Standard toolbar, insert the number of pages to correspond with the number of hyperlinks created on the home page. Remember, if an external hyperlink is used to direct viewers to another Web site, a new page will not need to be created for it.

- Click the UNTITLED_1.HTM TAB at the top of the screen. On the blank page, enter text, graphics and design elements. Remember, this page is linked back to the home page; it will provide more detailed information on a specific aspect of the Web site.

- Return to the home page (DEFAULT.HTM). Highlight the text or image that will provide the hyperlink to the newly formatted UNTITLED_1. Choose the INSERT HYPERLINK button  on the toolbar to create the appropriate hyperlink.

- Repeat the previous two steps for each new hyperlink on the home page with the next hyperlink linking to UNTITLED_ 2 and so on. When inserting external hyperlinks, make sure to enter the correct address in the Insert Hyperlink dialog box.

- Insert any desired dynamic effects, page transitions, or multimedia effects. Select INSERT → WEB COMPONENT and the Insert Web Component dialog box will appear, then choose an effect or component. Select FORMAT → PAGE TRANSITION, click the EVENT drop-down arrow to choose when the effect will occur, enter the number of seconds for how long the effect will last, choose a transition effect and click OK.

- Rename each page in the Web site so it reflects the content that has been entered. For example, UNTITLED_1 might be renamed *Town History*. To rename a page, right-click on the tab (UNTITLED_1) and choose SAVE. Enter the appropriate file name, click SAVE and the name on the tab will change to the file name.

- Examine each page in the Web site and make adjustments to font type, color and size as desired.

- Save the Web site by choosing FILE → SAVE ALL then see how the site would appear on the Internet. Select FILE → PREVIEW IN BROWSER and choose the appropriate Web browser. Navigate through the Web site to ensure that the hyperlinks and formatting function correctly. Make any necessary adjustments or changes.

- Save any final changes and exit *SharePoint Designer*.

Project 9: Mythology Database
Teacher Guide

Description:

Using the database supplied on the template, the students develop a substantial information source on the deities found in the mythologies of various cultures. They employ an Internet search engine to research the different mythologies, then expand the database to include enough entries to be useful for comparison. Students then sort the data to find commonalities among several deities and write a report discussing these similarities.

Grade Levels: 7-9

Suggested Time Allotment: Three class periods plus homework time

Materials:

Web browser, *Microsoft Access 2007*and *Microsoft Word 2007*

MYTHOLOGY DATABASE.ACCDB

Prerequisite Skills:

The students should be familiar with Internet research tools and be able to manipulate a database in *Access*.

PA Academic Standards:

Grade 8:

1.4.8B Types of Writing: Write multi-paragraph informational pieces (e.g., letters, descriptions, reports, instructions, essays, articles**,** interviews).

- Develop a problem and solution when appropriate to the topic.

1.5.8C Quality of Writing: Write with controlled and/or subtle organization.

- Sustain a logical order within sentences and between paragraphs using meaningful transitions.
- Establish topic and purpose in the introduction.

1.8.8B Research: Locate information using appropriate sources and strategies.

- Determine valid resources for researching the topic, including primary and secondary sources.
- Evaluate the importance and quality of the sources.

- Select essential sources (e.g., dictionaries, encyclopedias, other reference materials, interviews, observations, computer databases).
- Use traditional and electronic search tools.

Grade 11:

1.4.11B Types of Writing: Write complex informational pieces (e.g., research papers, analyses, evaluations, essays).

- Use precise language and specific detail.

1.5.11C Quality of Writing: Write with controlled and/or subtle organization.

- Sustain a logical order throughout the piece.
- Include an effective introduction and conclusion.

1.8.11B Research: Locate information using appropriate sources and strategies.

- Determine valid resources for researching the topic, including primary and secondary sources.
- Evaluate the importance and quality of the sources.
- Select sources appropriate to the breadth and depth of the research (e.g., dictionaries, thesauruses, other reference materials, interviews, observations, computer databases).

NCTE Standards:

2. Read a wide range of literature from many periods and genres to build an understanding of the dimensions (e.g., philosophical, ethical, aesthetic) of human experience.
7. Conduct research by generating ideas and questions and posing problems. The students gather, evaluate and synthesize data from a variety of sources.

NETS Performance Indicators (Grades 6-8):

7. Collaborate with peers, experts and others using the Internet and collaborative tools to investigate curriculum-related problems, issues and information and to develop solutions or products for a diverse audience.
8. Select and use appropriate tools and technology to problem solve and accomplish a variety of tasks.

NETS Performance Indicators (Grades 9-12):

2. Make informed choices among technology systems, resources and services.
7. Routinely and efficiently use online resources to meet needs for collaboration, research, publications, communications and productivity.

Internet Applications:

The students will refine their Internet research skills.

Process:

Copy and save the MYTHOLOGY DATABASE template on the school server or on a removable disk. Explain that the template consists of a database containing seven fields. It has three deities for each of the four different cultures already entered. Discuss the fields and decide if any need to be changed or modified. Distribute the *Mythology Database Student Handout* and announce that the students will expand the database to include four more deities for the cultures already included, as well as seven deities from two other cultures. After completing the database, they will sort the data to discover similarities among several of the deities. Finally, the students will write a one- to two-page analysis of the common elements.

Evaluation:

Evaluate the students on the sources they find on the Internet, which deities and cultures they discover and the criteria they use for sorting. Assess their written analyses of commonalities among deities.

Technology Enrichment:

Direct the students to create a *PowerPoint* presentation about one of the deities they have researched. Encourage them to include hyperlinks in their analysis papers.

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Project 9: Mythology Database
Student Handout

- Launch *Microsoft Access 2007* and open the MYTHOLOGY DATABASE.ACCDB.

Sample from the MYTHOLOGY DATABASE TEMPLATE

Deity	Culture	Family Ties	Domain	Abilities	Character Strengths	Character Flaws
Zeus	Greek	Father of the gods	supreme god, sky, rain, thunder	change shape	protects weak, punishes the wicked	wrathful, promiscuous
Hera	Greek	Wife of Zeus	women, marriage, childbirth	prophecy	protects married women	wrathful, jealous, vengeful
Aphrodite	Greek	Daughter of Zeus	love, desire, beauty	magic aids	inspires love in others	promiscuous
Jupiter	Roman	Father of the gods	supreme god, sky, rain, thunder	change shape	protects weak, punishes the wicked	wrathful, promiscuous
Juno	Roman	Wife of Jupiter	women, marriage, childbirth	N/A	protects married women	N/A
Venus	Roman	Daughter of Jupiter	love, desire, beauty	N/A	inspires love, sexuality	N/A
Hathor	Egyptian	Daughter of Ra	moon, fertility, joy, music, love	change shape	patron and protector of women	N/A

- Decide if any of the fields need to be modified. Realize that if they are modified, it will affect the data for the 12 deities already entered. Make any necessary changes to the fields of the database in the DESIGN function, then minimize *Access*.

- Open the Web browser and use the following links to gather information about deities from the four cultures already named in the database. Search for more Web sites to gather details about the mythology of other cultures. Determine which links will be most useful and bookmark them.

  http://meltingpot.fortunecity.com/alameda/938/olymp_2.htm
  Brief summaries of the Greek gods and goddesses

  http://interoz.com/egypt/gods1.htm
  A useful overview of ancient Egyptian mythology

  http://ancienthistory.about.com/library/bl/bl_myth_europe_norse_gods_index.htm
  A good resource for Norse mythology

- Six cultures should be represented and each should include seven individual gods and goddesses.

- Modify the format, text, font size, and background color of the database as desired. On the HOME TAB in the corner of the FONT GROUP, click  to open the Datasheet Formatting dialog box. Change the background and gridline colors as desired. When finished, click the MICROSOFT OFFICE button and select PRINT, then save the file as MY MYTHOLOGY database.

- In any field except Deity or Culture, choose an interesting or unique characteristic. Highlight the word or phrase, choose the SELECTION button in the SORT & FILTER GROUP, then click the appropriate option.

- Check to see if the filter has produced the desired data, and then print the newly filtered database.

- Select all areas of the filtered template at once by holding down the CTRL key and pressing A. Next click the COPY button. Remove the filter by choosing the TOGGLE FILTER button in the SORT & FILTER GROUP then minimize *Access*.

- Launch *Word*. Write a rough draft comparing and contrasting the deities that appeared on the filtered database.

- Revise and edit the rough draft as necessary. Paste the filtered database at the end of the written analysis.

- Save the *Word* document in a new file, print and exit *Word* and *Access*.

Project 10: Collaborative Creative Writing Teacher Guide

Description:

The students write sequentially collaborative short stories with their classmates. Each student follows specific guidelines to build on a story prompt supplied by the teacher. The first student writer develops the prompt and ends with two possible plot directions. The second writer chooses one of the two outcomes, then writes an ongoing narrative, again ending with two possible plot choices. This process continues with different students extending the narrative until a final entry is announced. Each writing period is timed. The multiple plot options help make the final stories interesting.

Grade Levels: 6-10

Materials:

Microsoft Word 2007
Formatted removable disks for each student

Prerequisite Skills:

The students should be familiar with *Microsoft Word 2007.*

Suggested Time Allotment: One or two class periods initially, other class and homework time on a regular basis

PA Academic Standards:

Grade 8:

1.1.8G Learning to Read Independently: Demonstrate after reading understanding and interpretation of both fiction and nonfiction text, including public documents.

- Make extensions to related ideas, topics or information.

1.2.8C Reading Critically in All Content Areas: Produce work in at least one literary genre that follows the conventions of the genre.

1.4.8A Types of Writing: Write short stories, poems and plays.

- Include literary elements (Standard 1.3.8.B.).

1.5.8C Quality of Writing: Write with controlled and/or subtle organization.

- Sustain a logical order within sentences and between paragraphs using

meaningful transitions.

1.5.8D Quality of Writing: Write with an understanding of the stylistic aspects of composition.

- Use different types and lengths of sentences.
- Use tone and voice through the use of precise language.

Grade 11:

1.1.11G Learning to Read Independently: Demonstrate after reading understanding and interpretation of both fiction and nonfiction text, including public documents.

- Make extensions to related ideas, topics or information.

1.2.11C Reading Critically in All Content Areas: Produce work in at least one literary genre that follows the conventions of the genre.

1.4.11A Types of Writing: Write short stories, poems and plays.

- Include literary elements (Standard 1.3.8.B.).

1.5.11C Quality of Writing: Write with controlled and/or subtle organization.

- Sustain a logical order throughout the piece.

1.5.11D Quality of Writing: Write with a command of the stylistic aspects of composition.

- Use different types and lengths of sentences.
- Use precise language.

NCTE Standards:

3. Apply a wide range of strategies to comprehend, interpret, evaluate and appreciate texts. Draw upon their prior experience, such as interactions with other readers and writers, knowledge of word meaning, word identification strategies and understanding of textual features.
4. Adjust usage of spoken, written and visual language (e.g., conventions, style, and vocabulary) and employ a wide range of strategies to communicate effectively with a variety of audiences.
11. Participate as knowledgeable, reflective, creative and critical members of a variety of literacy communities.

NETS Performance Indicators (Grades 6-8):

8. Select and use appropriate tools and technology to accomplish a variety of tasks and solve problems.

NETS Performance Indicators (Grades 9-12):

2. Make informed choices among technology systems, resources and services.
8. Select and apply technology for research, information analysis, problem solving and decision making in content learning.

Process:

Although this project is straightforward, teacher-established guidelines are essential to its success. To track individual student writing, create a random code for each pupil. Write it on the floppy disk supplied for each student. Instruct the students to include their codes in parentheses at the end of each section they write. The brief story prompt will be included in a *Word* file on the disk. Explain to the students that they will use the prompt as the beginning of a short story. Distribute *Project 10: Collaborative Creative Writing Student Handout* and review the project. Explain that the purpose is to provide the students with a variety of choices as they create a story and then add to their classmates' stories. Emphasize that originality and creativity are important parts of this process. Before the students begin, set guidelines for language, violence and content. Remind them that they will have limited time to read the ongoing narratives and write their additions. Create a logical process for rotating the disks between students to ensure that no student receives the same disk twice.

Evaluation:

Evaluate the students on their ability to follow directions and stay on task as they work. Assess the creativity of their individual entries.

Extensions:

Once the project is complete, collect the disks, print the stories and create an anthology. If possible, provide the students with their own copies.

Technology Enrichment:

Encourage the students to design a book cover for the anthology or for one of the stories using *Microsoft Publisher 2007*.

Project 10: Collaborative Creative Writing Student Handout

- Launch *Microsoft Word 2007* and open the story prompt file on the floppy disk supplied by the teacher.
- Read the prompt and use it to write a strong beginning for a story. Follow the teacher's guidelines regarding acceptable standards and time limits for writing.
- Be sure to provide a clear choice at the end of this section. Because this project is collaborative, the next writer must be able to choose one of two possible directions for the story to follow.
- After writing the first section of the story, enter in parentheses the identification code supplied by the teacher.
- Write a sentence for each of the two possible choices at the end of the section. Save the story on the floppy disk, naming the file STORY PART ONE.
- Highlight the introduction and the sentence that provides the first choice for the story's direction. Copy the highlighted section, click the MICROSOFT OFFICE button and select NEW. Choose BLANK DOCUMENT in the New Document window and then click CREATE. Paste the selection on the new page.
- Save the document on the floppy disk or other removable disk provided by the teacher. Name the file STORY PART ONE – A, and then close the page.
- Return to the original page, highlight the sentence that presents the first choice, and click the HYPERLINK button on the INSERT TAB. In the Insert Hyperlink dialog box, verify that EXISTING FILE OR WEB PAGE is selected. Choose RECENT FILES and click A:\ STORY PART ONE – A. Choose OK.
- Highlight the second choice for the direction of the story. Save the new page as STORY PART ONE – B.
- Repeat the process above to create a hyperlink for the second choice, then link it to the file STORY PART ONE – B, as in the sample on the next page. Close the files.

Sample of story introduction with two plot choices:
The old man walked up the hill straining under the weight of the large basket in his arms. It was a typically hot July day in the city. He was bone tired and sweat was pouring down his face. He knew that he had to keep putting one foot in front of the other to have any hope of making it to the inviting coolness of his daughter's air-conditioned apartment on 37th Street. He tried to visualize these same streets on a cool fall day, but the image didn't bring him much relief. As he started to cross the narrow side street, a loud horn blared and startled him. He realized that he just didn't have the energy to walk the remaining 12 blocks to his daughter's house. He figured he had two choices: he could hail a cab and hope the driver would take him to Sarah's and wait while he went in to get the fare from her, or he could cut through several of the rubble-strewn vacant lots that were scattered throughout this neighborhood and perhaps cut his trip by a third. (RX3)

With a sigh, James Claiborne shuffled to the curb and raised his arm to hail a taxi…. **(Choice A)**

Taking a deep breath, James Claiborne cut diagonally across the weed-ridden and trash-filled lot on his left, keeping his eyes lowered to the ground ahead of him… **(Choice B)**

- Click the MICROSOFT OFFICE button and select OPEN to verify that the original prompt file and the two new files have been saved. Close the dialog box and remove the disk.
- Following the teacher's instructions, pass the disk to another student and receive a new disk.
- Open the *Word* file entitled STORY PART ONE. Read the beginning of the short story, then choose the appropriate hyperlink to indicate the preferred plot choice.
- Using the time allotted, continue the story by writing an ongoing narrative. Remember to end with two possible plot directions for the next writer to choose.
- Follow the steps previously outlined to create new files for the expanded story with both possible plot directions. Name the two new files STORY PART TWO – A and STORY PART TWO – B. Be sure to include the assigned identification code in parentheses at the end of the section.
- Create hyperlinks for both new plot choices to the appropriate new page. Save the original page in a file named STORY PART TWO. Verify that the three new files and the three original files have been saved.
- Continue this process using a different disk each time to develop the story and provide two plot directions for the next writer. The teacher will announce the final switch, indicating that it is time to write a conclusion to the story on the current disk.
- Save the entire story on disk in a file named FINISHED STORY. Print the final version of the story, exit *Word* and return the disk to the teacher.

Project Analysis Form

Use this form to analyze the selected sample projects and take notes during project testing.

1. Do the *Teacher Guide* and *Student Handout* components provide the information and steps needed to understand the project? Are the required skills appropriate for the students?

2. Describe the online research portion of the project. Is it a practical way to gather the necessary data? Why or why not?

3. Is the template format clear and useful? Does it provide an appropriate foundation for the development of the presentation?

4. Does the project provide for student creativity? Will it engage student interest?

5. Which elements of the projects will be useful when you create your own technology-infused project?

6. Other comments?

Module 2: Project Creation

Planning a language arts technology lesson is similar to planning a traditional language arts lesson. Common steps include the identification of the purpose of the lesson, the development of the appropriate approach and the creation of an evaluation instrument. The technology lesson is supplemented by the integration of applicable technology standards, software applications, and, in many cases, Internet resources.

This course provides a variety of tools to enable teachers to create technology projects easily and efficiently. Two key aids are the Project Creation Process Guide on page 68 which demonstrates the thinking and development of a hypothetical project that explores the symbolism found in *Moby Dick* by Herman Melville and the Steps to Create a PowerPoint Presentation Guide found on pages 70-72.

The International Society for Technology in Education (ISTE) has developed performance indicators known as the National Educational Technology Standards (NETS). When planning a technology project, use these standards to assess the level of technology performance in each lesson. The standards may be found on pages 75-76.

A Sample Rubric for Student Performance Review is included on pages 78-79.

The process provided is meant to point teachers in the right direction of successful project development. Feel free to adapt it as needed.

Project Creation Process

Step-by-Step Guide	*Model Project*
Choose a central idea or focus for the project.	Symbolism in *Moby Dick* by Herman Melville.
Determine the goals of the project. What will the student learn? How will this knowledge address the overall goals of the unit or curriculum?	Students will learn to recognize specific symbols used in *Moby Dick*. They will identify and explain correlations between symbols and their meanings, and demonstrate an understanding of symbolism in a broader context.
Identify what language arts and other learning objectives and standards the students will achieve through the project.	***NCTE Standards*** 3. Apply a wide range of strategies to comprehend, interpret, evaluate and appreciate texts. They draw upon experience, such as interactions with other readers and writers, knowledge of word meaning, word identification strategies and understanding of textual features. 6. Apply knowledge of language structure, language conventions (e.g., spelling and punctuation), media techniques, figurative language and genre to create, critique and discuss texts. 8. Use a variety of technological and informational resources (e.g., libraries, databases, computer networks and video) to gather and synthesize information and to create and communicate knowledge.
Consider how these objectives have been achieved previously without the use of technology.	In previous years the students have participated in class discussions, done library research, and written essays on the topic.

Selecting Software Applications

There are many ways to determine which software applications would best address the purpose and objectives of a project. One approach is to first decide the objectives of the lesson and then brainstorm how each software application could be used to achieve them.

The examples below were created in this manner. Some software applications lend themselves to certain types of projects naturally, while others are more difficult to adapt to the same objectives. Considering all the available software applications, and the achievement of lesson objectives through the different structures inherent to them, will aid in the creation of interesting and meaningful projects.

Another way to decide which software applications to use is to consider which applications the students need to learn or practice and to create a project specifically designed to enhance skills in those applications. For example, if the students need to work with *Excel*, they might benefit from a project that involved the creation of graphs.

Possible Projects

Use ***Access*** to build a database of symbols found in *Moby Dick*. Data might include the symbols, their meanings, supporting quotes from the text and page references. The database could be augmented with input on other literary works, resulting in a tool for comparing the use of symbolism in the works studied to date.	Use ***PowerPoint*** to make presentations about the symbolism in *Moby Dick*. The students can use the Internet to find illustrations, critical essays and other material relative to Melville and *Moby Dick*. Presentations could include images of the symbols and their meanings and illustrate how Melville employs symbolism to enhance his work.
Use ***Excel*** to track how Ahab's obsession with *Moby Dick* can be gauged by the repetition of certain symbols. Using a numerical scale, describe Ahab's demeanor and his interpretation of other characters and events around him. Using a list of major symbols from ***Moby Dick***, note those that correspond to the heights of Ahab's obsession. When all the data is entered, create a line chart that follows both Ahab's obsession and Melville's use of symbolism.	Use ***Publisher*** to design a booklet featuring the symbols found in ***Moby Dick***. It could include illustrations of the symbols, interpretations of their meanings and how they correlate to life in the United States in the mid-nineteenth century. Internet research skills could be used to find illustrations and critical essays on the subject of symbolism in *Moby Dick*, as well as historical information about life in Melville's time.
Use ***SharePoint Designer*** to build a Web site that includes illustrations of the symbols, interpretations of their meanings and links to Internet sites about Melville, the history of the mid-nineteenth century in the United States and passages in online versions of *Moby Dick*.	Use ***Word*** to create a table of symbols *in Moby Dick* that includes their common interpretations, the frequency of use and specific page references.

Steps to Create a PowerPoint Presentation on Moby Dick

Outline a logical progression of steps to create the project.	1. Define the parameters of the presentation, such as the minimum number of required pages and the amount of class time that will be dedicated to making and presenting the project. 2. Identify the main characters, the important symbols and their meanings, and determine the correlation between them. 3. Sketch, outline or map the structure of the project. Decide what each page will contain. Use animation, sound, video, graphics, links and text as elements of the presentation. 4. Create two working files to hold all the components of the presentation — a digital file on the computer and a physical file for notes and sketches of the project. 5. Outline and store the text elements in the digital file. 6. Search for resources on the Internet. Make necessary copies for the digital file, carefully noting their sources. 7. Gather other needed resources, such as video clips, hard copies and clip art. File resources in the digital and physical files as needed. 8. Create the presentation using the resources gathered. Find or write additional material as needed to complete the project. 9. Test the presentation to ensure that all inserted media, links and other details work as anticipated. Make needed adjustments and/or corrections. 10. Implement presentation. 11. Reflect and revise as needed.

Create the project using a specific plan and keep detailed notes on each step. These notes will form the foundation for the student handout.	Using the Project Creation Guidelines, construct the *PowerPoint* presentation. Keep notes detailing the steps in the process.
Decide on a reasonable time frame for student completion of the project.	Two class computer lab sessions and two homework assignments will be dedicated to this *PowerPoint* presentation.
Finalize the student handout, taking care that the directions are sequential and easily understood.	Proof, test and revise the student handout as needed.
Consider what background information and activities should be presented in class before students embark on the project.	Examine such topics as the "Golden Age of Whaling" and life in the United States during the 1840's and 1850's by assigning reading and leading class discussions.
Develop an assessment rubric or other instrument to evaluate student performance on the project. (Refer to sample on pages 68-70.)	Refer to the ISTE performance indicators that support the project's technology objectives and other appropriate criteria to develop an evaluation instrument to assess the content and technology usage within the project. ***ISTE Performance Indicators (9-12)*** 7. Routinely and efficiently use online information resources for collaboration, research, publications, communications and productivity. Collaborate with peers, experts and others to contribute to a content-related knowledge base by using technology to compile, synthesize, produce and disseminate information, models and other creative works.
Analyze whether additional technology applications will enhance the effectiveness of the project.	Students can use a projector for their presentations to the class, addressing NCTE Standard 4: *Students adjust their use of spoken, written and visual language (e.g., conventions, style, vocabulary) to communicate effectively with a variety of audiences and for different purposes.*

	They should also provide their resources in correct bibliographic form, prepared in *Word*.
Present at least one technology enhancement for the project to foster further learning.	Have students keep a "timesheet" in *Excel* to track how much time they spend on each step of the project. After all the projects have been presented, have students examine and compare their "timesheets". Lead a discussion to examine time spent and results achieved and to explore methods students can use to improve their next projects.
Consider ways to extend the project by using related ideas for discussion or development.	Have students create their own *PowerPoint* projects with templates, a teacher guide and a student handout for another literary work they will study. Students can exchange, develop, present and critique each other's projects.
Review and evaluate the effectiveness of the proposed project. Consider the questions listed on the right.	—Will the students be able to follow the handout successfully without the use of a template? —Will the discussion suggested in the "Process" section of the Teacher Guide provide sufficient context for the students to understand the purpose of the project? How might the discussion be changed or expanded? —How can this project assist the students to better understand the symbolism in *Moby Dick*? How will it assist students to better understand how symbolism enriches the literary experience? —Does the project allow for sufficient student creativity? Will it engage student interest? —Other comments?

Creation Process Guidelines

Directions:

Before producing a technology project, consider and respond to each of the following questions. Use the information as a guide in the creation process.

1. What specifically is to be accomplished with this project?
2. What language arts learning objectives will the students achieve with this project?
3. Have these objectives been achieved in the past without using technology? If so, how?
4. Which software applications would enliven, enrich, simplify or promote these objectives?

5. How will the use of Internet resources impact this project?
6. Will an electronic template be required? How complete should it be?
7. What is the logical progression of steps needed to work through the project?
8. Approximately how long should the project take to complete?
9. How will the results be evaluated?
10. Are there ways to extend this project to foster further learning? Can other technology applications enhance its effectiveness?

International Society for Technology in Education (ISTE)

National Educational Technology Standards (NETS)

Grades 6-8

All students should have opportunities to demonstrate the following:

Numbers in parentheses following each performance indicator refer to the standards category to which the performance is linked. The categories are as follows:

1. Basic operations and concepts
2. Social, ethical and human issues
3. Technology productivity tools
4. Technology communications tools
5. Technology research tools
6. Technology problem-solving and decision-making tools

Prior to completion of Grade 8, students:

1. Apply strategies for identifying and solving routine hardware and software problems that occur during everyday use. (1)
2. Demonstrate knowledge of current changes in information technologies and the effect those changes have on the workplace and society. (2)
3. Exhibit legal and ethical behaviors when using information and technology, and discuss consequences of misuse. (2)
4. Use content-specific tools, software and simulations (e.g., environmental probes, calculators, exploratory environments, Web tools) to support learning and research. (3, 5)
5. Apply productivity/multimedia tools and peripherals to support personal productivity, group collaboration and learning throughout the curriculum. (3, 6)
6. Design, develop, publish and present products (e.g., Web pages, videotapes) using technology resources that demonstrate and communicate curriculum concepts to audiences inside and outside the classroom. (4, 5, 6)
7. Collaborate with peers, experts and others using telecommunications and collaborative tools to investigate curriculum-related problems, issues and information, and to develop solutions or products for audiences inside and outside the classroom. (4, 5)
8. Select and use appropriate tools and technology resources to accomplish a variety of tasks and solve problems. (5, 6)
9. Demonstrate an understanding of concepts underlying hardware, software and connectivity, and of practical applications to learning and problem solving. (1, 6)
10. Research and evaluate the accuracy, relevance, appropriateness, comprehensiveness and bias of electronic information sources concerning real-world problems. (2, 5, 6)

Grades 9-12

All students should have opportunities to demonstrate the following:

Numbers in parentheses following each performance indicator refer to the standards category to which the performance is linked. The categories are as follows:

1. Basic operations and concepts
2. Social, ethical and human issues
3. Technology productivity tools
4. Technology communications tools
5. Technology research tools
6. Technology problem-solving and decision-making tools

Prior to completion of Grade 12, students:

1. Identify capabilities and limitations of contemporary and emerging technology resources and assess the potential of these systems and services to address personal, lifelong learning and workplace needs. (2)
2. Make informed choices among technology systems, resources and services. (1, 2)
3. Analyze advantages and disadvantages of widespread use and reliance on technology in the workplace and in society as a whole. (2)
4. Demonstrate and advocate for legal and ethical behaviors among peers, family and community regarding the use of technology and information. (2)
5. Use technology tools and resources for managing and communicating information (e.g., finances, schedules, addresses, purchases, correspondence). (3, 4)
6. Evaluate technology-based options, including distance and distributed education, for lifelong learning. (5)
7. Routinely and efficiently use online information resources to meet needs for collaboration, research, publications, communications and productivity. (4, 5, 6)
8. Select and apply technology tools for research, information analysis, problem-solving and decision-making in content learning. (4, 5)
9. Investigate and apply expert systems, intelligent agents and simulations in real-world situations. (3, 5, 6)
10. Collaborate with peers, experts and others to contribute to a content-related knowledge base by using technology to compile, synthesize, produce and disseminate information, models and other creative works. (4, 5, 6)

Electronic Templates

Templates allow students to work with an application from a predetermined structure. Depending on the learning goals and the technology skills of the students, templates can provide an effective starting place for students projects.

If needed, use the selected software program to create the data file that students will need to begin their projects. When the template is complete, give the file a descriptive name and save it on the server or on floppy disk(s). In most Microsoft programs, such files can be saved as templates with extensions that describe them. To save the file as a template, choose the MICROSOFT OFFICE button and select SAVE AS. In *Publisher* and *SharePoint Designer*, choose FILE → SAVE AS. Add the file name and choose the correct extension from the drop-down button labeled *Save as type*.

The standard template extensions for each software program are as follows:

Excel	(*.xltx)
SharePoint Designer	(*.tem)
PowerPoint	(*.potx)
Publisher	(*.pub)
Word	(*.dotx)
Access	(*accdb)

Project design, the software application selected and logistical considerations will dictate how students use the templates.

In general, expect students to:

1. copy the template, assign a name to the copy and use the copy.
2. open their template, use it to complete the project and save it under a new name.
3. open the template, immediately use the SAVE AS command to save the file with a new name. By following these instructions, they make and save a copy of the template simultaneously. This will avoid the overwriting of the original file.

Please note that *Access* only allows information to be saved in the format of a table, form or report, so the templates must be copied and renamed.

Sample Rubric
Student Performance Review

A rubric may consist of two sections, the first of which is a performance-criteria checklist where the students are evaluated in one or more areas. The second section provides the teacher a space to make specific anecdotal comments about the student's performance. The sample rubric provided is very general and is designed to serve as a structural model; Feel free to modify the rubric as needed. When adapting and using the sample rubric, teachers will need to reflect on expected outcomes and classroom observations and experiences, as well as review student work and the skills checklist. To assess students, teachers should make a determination and place an "X" in each of the appropriate cells. The checklist and comments should help the teacher to make a fair and comprehensive evaluation of the student's work.

Unsatisfactory

An "unsatisfactory" mark should be rare. This designation is reserved for the student who seldom completes assignments, participates in activities or complies with peers.

Needs Practice

A student who is new to the material or skills likely would fall into this category. The continuing student who acquires few of the course skills and requires significant assistance should also receive this designation.

Satisfactory

A "satisfactory" mark should be reserved for the student who attains most course skills and completes most projects. Some additional practice may be needed in a few areas, but overall progress is acceptable.

Mastered

"Mastered" indicates that a student has completed all of the projects and has attained all course skills and objectives. This student can perform designated tasks automatically and consistently.

Superior

Generally, few students will attain the "superior" mark. This is for the student who regularly exceeds expectations. For example, a superior student may apply a combination of multimedia and other technical skills to create innovative projects.

Student Performance Review

Student: _____ Date: _____

Reviewer: _____ Grade: _____

Performance Criteria	1 Unsatisfactory	2 Needs Practice	3 Satisfactory	4 Mastered	5 Superior
Language Arts Skills ▪ Strengthens targeted skills ▪ Achieves stated lesson objectives ▪ Understands how specific lesson fits into the larger whole					
Computer Skills ▪ Effectively navigates ribbons and menus, and executes commands ▪ Understands software functions ▪ Selects appropriate software to complete a given task ▪ Demonstrates facility with hardware					
Participation and Teamwork ▪ Actively participates in class discussions ▪ Works cooperatively ▪ Collaborates with partner					
Project Completion ▪ Follows activity directions ▪ Completes all steps in an activity ▪ Fulfills project requirements					

Comments: _____

Project Self-evaluation Rubric

Name:_____

Date: _____ Project Title: _____

Evaluation Criteria	1 Unsatisfactory	2 Needs Work	3 Satisfactory	4 Strong	5 Superior
Goals and Objectives ▪ Purpose clearly articulated ▪ Learning objectives achievable through project ▪ Relevance of project to language arts content					
Software ▪ Appropriate software applications utilized ▪ Software capabilities enhance project					
Content Enhancement ▪ Critical thinking skills emphasized ▪ Creative and original approach to content or skills established ▪ Active interaction with content necessary					
Student Involvement ▪ Strong encouragement of originality and creativity ▪ Engagement of student interest and enthusiasm ▪ Potential for further exploration					
Integration of Technology ▪ Technology essential to achieve learning objectives ▪ New perspectives resulting from technology use ▪ Strengthening of student technology skills					

Comments:_____

_____

_____

_____

Module 3: Internet Resources

Overview

History

The Internet originated in a U.S. Department of Defense Project called ARPANET (Advanced Research Projects Agency Network). Established in 1969, ARPANET was designed to provide a secure communications network for organizations engaged in defense-related research. The key to its functionality was the TCP/IP (Transmission Control Protocol/Internet Protocol), which standardized addressing systems and communications protocol. In time, the National Science Foundation (NSF) networked ARPANET into the NSFNet. The two joined systems were able to handle more traffic than had been manageable previously, carrying data at the rate of 45 million bits per second.

Today, the NSFNet has become primarily a research network, with the main backbone of Internet traffic now supported by commercial network providers. Internet protocol development is governed by the Internet Architecture Board, Internet Engineering Task Force and Internet Society. The naming of computers and networks is administered by InterNIC (Internet Network Information Center).

World Wide Web

Until 1989, the Internet was used primarily for e-mail and transferring files electronically. At that time, Tim Berners-Lee and his colleagues at CERN (in English, the European Particle Physics Laboratory) in Switzerland created the HyperText Transfer Protocol (http), which standardized communication between servers and clients. They then developed the first text-based Web browser released in 1992. The World Wide Web was rapidly accepted because of the creation of a Web browser called Mosaic, developed in the United States at the University of Illinois and released in September 1993. In April 1994, the first large-scale commercial release of a Web browser, *Netscape Navigator*, revolutionized how the Internet was used. Millions of computer users now navigate the Internet through the World Wide Web. The World Wide Web Consortium is responsible for protocols and standards for Web development.

Searching on the Web

There are two types of tools that can be used to search the World Wide Web: search engines and directories. **Search engines** explore the Web to find matches for keywords entered by the user. **Directories** are hierarchical subject indexes where users can choose headings, subheadings and topics. Many search engines also now contain search directory features and vice versa.

When searching for broad general information, first use a directory. For more specific information, use a search engine.

Keywords are text entered by the user into a search engine or directory. Found matches (known as hits) appear in a list. To get an idea of what keywords users are currently entering, view *Metaspy* at **http://www.metacrawler.com/info.metac/searchspy**. This site displays keywords that people have entered to search with the MetaCrawler search engine. If any of the listed keywords are clicked, the search results for those keywords will be displayed.

Note: Because of the potential for encountering mature content, it is best to view these sites outside the classroom setting.

Keyword Search Tips

Certain word combinations assist in narrowing or broadening a Web search. They are called **Boolean Operators**, named after the English mathematician George Boole, the first person to incorporate logic into mathematics. This algebra of logic, called Boolean algebra, is considered a fundamental step in the computer revolution. The following words are useful for searches:

AND	searches for all the keywords entered
AND NOT	cannot contain the word following
OR	searches for at least one of the words
Parentheses	used for Boolean queries; e.g., "fruit AND (banana OR apple)" would search for sites containing the keywords "fruit" and "banana" *or* "fruit" and "apple." Make sure to use all caps for Boolean operators and to leave a space on either side of each operator.

Standards and Performance Indicators

International Society for Technology in Education

The International Society for Technology Education (ISTE) is a nonprofit professional organization dedicated to promoting appropriate uses of information technology in the support and improvement of learning, teaching and administration in K–12 and teacher education. Information about the National Educational Technology Standards (NETS) Project, the National Center for Preparing Tomorrow's Teachers to Use Technology ($NCPT^3$) and the Technology Standards for School Administrators (TSSA) is available at the ISTE site:

http://www.iste.org/

National Council of Teachers of English

The National Council of Teachers of English (NCTE) is devoted to improving the teaching and learning of English and the language arts at all levels of education. Since 1911, the NCTE has provided a forum for the profession, an array of opportunities for teachers to continue their professional growth throughout their careers and a framework for cooperation to deal with issues that affect the teaching of English:

http://www.ncte.org/

National Council for Accreditation of Teacher Education

The National Council for Accreditation of Teacher Education (NCATE) is the profession's forum to help establish high-quality teacher preparation. Through the process of professional accreditation of schools, colleges and departments of education, NCATE works to make a difference in the quality of teaching and teacher preparation today, tomorrow and for the next century.

http://www.ncate.org/

Web Addresses: Departments of Education

U. S. Department of Education	**http://www.ed.gov/** *Library > Education > K-12 Education > Government Policies > State Ed. Depts.*
Alabama	**http://www.alsde.edu/**
Alaska	**http://www.eed.state.ak.us/**
Arizona	**http://www.ade.state.az.us/**
Arkansas	**http://arkansased.org/**
California	**http://www.cde.ca.gov/**
Colorado	**http://www.cde.state.co.us/**
Connecticut	**http://www.state.ct.us/sde/**
Delaware	**http://www.doe.state.de.us/**
District of Columbia	**http://www.seo.dc.gov/seo/site/default.asp**
Florida	**http://www.fldoe.org/**
Georgia	**http://www.doe.k12.ga.us/**
Hawaii	**http://doe.k12.hi.us/**
Idaho	**http://www.sde.state.id.us/Dept/**
Illinois	**http://www.isbe.state.il.us/**
Indiana	**http://www.doe.state.in.us/**
Iowa	**http://www.state.ia.us/educate/**
Kansas	**http://www.ksbe.state.ks.us/Welcome.html**
Kentucky	**http://www.kde.state.ky.us/**
Louisiana	**http://www.doe.state.la.us/DOE/asps/home.asp**
Maine	**http://www.maine.gov/education/**
Maryland	**http://www.marylandpublicschools.org/msde**
Massachusetts	**http://www.doe.mass.edu/**
Michigan	**http://www.michigan.gov/mde**
Minnesota	**http://children.state.mn.us/mde/index.html**
Mississippi	**http://www.mde.k12.ms.us/**
Missouri	**http://www.de.sestate.mo.us**
Montana	**http://www.opi.state.mt.us//**
Nebraska	**http://www.nde.state.ne.us/**
Nevada	**http://www.doe.nv.gov/**

New Hampshire	**http://www.ed.state.nh.us/education/**
New Jersey	**http://www.state.nj.us/education/index.html**
New Mexico	**http://sde.state.nm.us/index.html**
New York	**http://www.nysed.gov/**
North Carolina	**http://www.dpi.state.nc.us/**
North Dakota	**http://www.dpi.state.nd.us/index.shtm**
Ohio	**http://www.ode.state.oh.us/**
Oklahoma	**http://www.sde.state.ok.us/**
Oregon	**http://www.ode.state.or.us/**
Pennsylvania	**http://www.pde.state.pa.us**
Rhode Island	**http://www.ridoe.net/**
South Carolina	**http://www.sde.state.sc.us/**
South Dakota	**http://doe.sd.gov/**
Tennessee	**http://www.state.tn.us/education/**
Texas	**http://www.tea.state.tx.us/**
Utah	**http://www.usoe.k12.ut.us/**
Vermont	**http://www.state.vt.us/educ/**
Virginia	**http://www.pen.k12.va.us/go/VDOE/**
Washington	**http://www.sbe.wa.gov/**
West Virginia	**http://wvde.state.wv.us/**
Wisconsin	**http://www.dpi.state.wi.us/index.html**
Wyoming	**http://www.k12.wy.us/wdehome.html**

Language Arts Lesson Plans on the Web

The following Web sites provide lesson plans and links to other sites to aid in the development of technology-infused language arts projects:

About.com presents English and language arts lesson plans
http://712educators.about.com/od/englishlessons/Language_Arts_Lesson_Plans.htm

Lessonplanz.com offers 3,500 lesson plans and worksheets for all grade levels
http://lessonplanz.com/Lesson_Plans/Language_Arts/

Site created by two college professors with a multitude of useful links to lesson plans, student worksheets and other teaching resources
http://www.sitesforteachers.com/

A no-frills, clear index of lesson plans in nearly 70 categories presented by Awesome Library.org
http://www.awesomelibrary.org/Library/Materials_Search/Lesson_Plans/Language_Arts.html

Teacher-generated lesson plans presented by the Columbia Education Center
http://www.col-ed.org/cur/#Lang

An interactive site with a good cross-section of language arts lesson plans
http://www.lessonplanspage.com/LA.htm

Canada's Community Learning Network presents a comprehensive list of language arts lesson plans under various subheadings
http://www.cln.org/subjects/english.html

The Educator's Reference Desk from the Information Institute of Syracuse is a broad archive of useful material
http://www.eduref.org/

More than 40 federal groups have contributed to the Free site, which provides a vast selection of links to educational content, including lesson plans, ideas for lessons and tools to facilitate lesson activities and presentations
http://www.ed.gov/free/s-lanart.html

The Learning Page, part of the digital collections of the Library of Congress, provides lesson plans and activities in several subject areas, including language arts:
http://www.memory.loc.gov/ammem/ndlpedu/lessons/index.html

Technology Integration Activities

The following Web sites provide useful resources and information for general technology integration in the classroom:

Internet classroom projects from The Kentucky Educational Network Internet
http://www.ket.org/Education/IN/projects.html

University of Virginia School of Education site on integrating technology and teaching
http://www.teacherlink.org/

Educational Development Center site on teaching and technology
http://main.edc.org/newsroom/closer-look/edtech.asp

Commercial site with a range of school technology news from Eschoolnews.org
http://www.eschoolnews.org/

Further reading and links from the University of Alberta in Canada
http://www.quasar.ualberta.ca/edpy485/edtech/

Interesting group of Web sites by UNESCO Regional Office for Asia and the Pacific
http://www.unescobkk.org/index.php?id=171

Professional Development Sites on the Web

The following Web sites provide resources for technology-related training and more general teaching information:

Site by Jamie McKenzie, author of "How Teachers Learn Technology Best"
http://staffdevelop.org/

A professional development site from Apple Computers
http://www.apple.com/education/professionaldevelopment/

National Staff Development Council Web site
http://www.nsdc.org/

Because We Care Education Society in Canada on professional growth and mentorship
http://www.2learn.ca/profgrowth/index.html

The Clearinghouse on Reading, English and Communications at Indiana University
http://reading.indiana.edu

Teachers Helping Teachers Web site has a variety of useful resources
http://www.pacificnet.net/~mandel/index.html

Teachnet.org is another helpful teacher-centered resource site
http://www.teachnet.com/

National School Boards Association page focused on technology-related information
http://www.nsba.org/sbot/toolkit/tne.html

Bulletin Boards

(Also called Web Forums, Message Boards, Discussion Boards)

Messages and threaded discussion contributions can be posted on Internet bulletin boards. A bulletin board service is an online community that can be visited at any time to discuss current topics or share ideas and advice. Most Internet service providers offer a discussion board service to their members and many message boards can be joined through special interest Web sites. Some links to Web forums with active discussion groups on educational issues are listed below:

Teacher's Net
http://www.teachers.net/forum/

Teacher Talk Forums
http://www.iub.edu/~cafs/ttforum/ttforum.html

Teacherfocus Forums
www.teacherfocus.com/

ListServs

ListServs are e-mailing lists administered by special interest groups and Web communities. Members may subscribe to the e-mail list. Those who subscribe can monitor topics, post questions and responses and gather a range of ideas from others interested in the same topic. On an active e-mail list, information is usually up-to-date and useful to members of the group or Web community.

About.com: a source of newsletters about various educational issues and trends
http://home.about.com/education/index.htm?PM=59_0204_T

CataList: 56,236 public lists out of 447,595 LISTSERV lists
http://www.lsoft.com/lists/listref.html

Community Learning Network WWW home page. CLN is designed to help K-12 teachers integrate technology into their classrooms
http://www.cln.org/lists/home.html

Operating Systems: Hardware Basics

Hardware: Physical components that comprise a computer system.

Software: Applications that direct a computer to perform various operations.

The two major hardware platforms are **IBM compatibles** (IBM clones or PCs) and **Macintoshes**. IBM compatibles are made by such companies as IBM, Compaq, Dell, Hewlett-Packard, Gateway, Acer, Micron and Toshiba. Apple Inc. manufactures Macintoshes.

Computers work on Base 2 numbers, instead of Base 10 and only know two possible states, on (1) or off (0),

Computers store data as a 1 (one) or a 0 (zero). This digit is known as a **bit** (binary digit).
8 bits = 1 byte = 1 character
1 kilobyte = 1 K = 1,024 bytes
1 megabyte = 1 MB = 1,024 K = 1,048,576 bytes
1 gigabyte = 1 GB = 1,024 MB = 1,048,576 K = 1,100,000,000,000 bytes

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A computer system contains input devices, processing components, storage devices and output devices.

Input Devices

Keyboard: Similar to a typewriter keyboard, with extra keys such as control (Ctrl), escape (ESC), alt, enter, arrow keys and function keys (F1, F2, etc.).

Mouse: Small handheld device with a rotating ball underneath that when moved across a flat surface, such as a mousepad, relays signals to move the cursor on the screen. The mouse button is pressed to perform tasks. Similar devices include the trackball, track pad and track point. Mice are also available in optical and laser, in place of the conventional ball mouse.

Scanner: Device that converts text or graphics from a printed page into an electronic file that can be stored or manipulated. Flatbed and handheld scanners are the two main scanner types.

Miscellaneous: Joysticks, touch screens, bar code readers, graphics tablets, digital cameras and microphones are also input devices.

Hardware Basics [continued]

Output Devices

Monitor: Video display unit. Monitors can display at least 65,000 colors using 16 bit color. Typical monitors these days display using 32 bit color which is about 16.7 million colors.

Printer: Device that allows users to obtain a hard copy of their documents. Two main types of printers are inkjet and laser. Printer quality is determined by dots per inch (dpi).

Speakers: Devices for audio output. Speakers today can produce stereo-quality sound.

Input and Output

Modem (modulator demodulator): A mechanism that converts the digital data from the computer to analog signals (waves as tones) so that information can be transmitted over telephone or cable lines. It also translates the incoming analog signals back to digital data. A modem's bps (bits per second) indicates how fast it can send and receive information. Modems can be external or internal to the computer system.

Peripherals: A term used to describe all input and output devices.

Processing Components

CPU (central processing unit): The speed of the microprocessor's internal clock, measured in megahertz (MHz), determines how many times it can transition between on (1) or off (0) each second. This is a prime, though not the only, indication of processing speed and power as every transition indicates instructions being executed. Pentium, Pentium II, Pentium III, Celeron and K6 are CPU type examples.

ROM (read-only memory): Fundamental instructions required for the computer to operate that cannot be erased. ROM is recorded during the computer's manufacturing.

RAM (random-access memory): "Working memory" accessed when software is used. RAM is cleared when the computer is turned off and can be upgraded to increase the memory capacity.

Hardware Basics [continued]

Storage Devices

Floppy disk drive: A device that allows a computer to read from and write to the floppy disk. The 3.5-inch floppy disk holds 1.5 megabytes of data enclosed in a plastic case. Floppy disks use a magnetically coated flexible Mylar disk enclosed in a plastic case.

Hard drive: A device that uses many rigid disks coated with magnetic material that are permanently mounted inside the encased part of the computer system. Hard disks have much more data capacity than floppy disks and can be accessed more quickly. External hard drives may also be purchased.

Floppy disks and hard disks are magnetic storage media.

CD-ROM (compact disc read-only memory): Information can be read from the disc but not written to it. It uses optical storage techniques to store up to 650 MB of data. Information can be accessed from a CD-ROM faster than from a floppy disk but slower than from a hard drive.

CD-ROM-RW (compact disc read-write): Information can be both written to and read from the disc. Optical storage techniques can store up to 700 MB of audio or data files. CD-R discs can be recorded but are permanent and are often used for audio files; CD-RW discs can be erased and re-recorded but may only be used for data.

ZIP Drive: Data can be stored on these "super" discs which hold 100 MB to 250 MB of information. These devices are often external peripherals, but they can be internal.

DVD (Digital Video Disc): DVD is becoming much more common due to the large storage capacity (over 4 GBs). DVD is an optical disc storage media format that can be used to store high video and sound quality. They resemble CDs but are encoded in a different format and a much higher density.

USB Flash Drive: Flash memory data storage devices integrated with a USB interface. These are typically small, lightweight, removable and rewritable. Memory capacity typically ranges from 8 megabytes up to 64 gigabytes.

Operating Systems: File Organization

Back up (*verb*): the act of copying information to a disk
Backup (*noun*): the information copied to a disk

It is important to back up all new document files. Files that have been backed up can be restored in case a file becomes corrupt (damaged).

Backing up should be performed regularly. Back ups should also be stored in a physically separate location from the main data to prevent loss from events that can cause the loss of the main data (i.e. fire, flood, earthquake).

Utility applications can be purchased that contain features to help back up files.

The *Microsoft Windows* backup utility can be launched by selecting START → ALL PROGRAMS → ACCESSORIES → SYSTEM TOOLS → BACKUP. Depending on your version of Windows, this might be slightly different.

Using Windows Explorer, files can be backed up manually by copying them to a floppy disk or to a networked drive.

Be careful when replacing a file or folder with another of the same name. In general, the newer version should replace the older. When in doubt, it is prudent to save the new file with a slightly different file name so that important data is not lost.

The following instructions apply to both Windows Explorer and My Computer.

To select more than one file:

1. Choose the first file.
2. Hold down the CONTROL key.
3. Select other files as desired.

or

1. Choose the first file.
2. Hold down the SHIFT key.
3. Select the last file, and all other files between the first and the last are highlighted.

To move files from one location on a drive to another location on the same drive:

1. Select the files.
2. Drag the files to another location on the same drive.

File Organization [continued]

To copy files from one location on a drive to a different drive:

1. Select the files.
2. Drag the files to another drive.

To copy files from one location on a drive to another location on the same drive:

1. Select the files.
2. Press and hold down the CONTROL key.
3. Drag the files from one location to another.

To format a floppy disk:

1. Insert the floppy disk into the floppy drive.
2. Right-click the floppy drive and choose FORMAT from the pop-up menu.
3. Choose the FULL radio button in the Format Type group.
4. Click start.
5. After the formatting is complete, select the CLOSE button when the summary appears.
6. Close the Format Floppy window.

Tips for Organizing the Hard Drive:

1. Organize the hard drive by using Windows Explorer or My Computer.
2. Use folders liberally to help categorize the files in a meaningful manner.
3. Hard drive organization will likely change with time and experience. Be certain to incorporate new techniques as they are learned.
4. Attempt to determine the most efficient way to organize files and folders with respect to the potential tasks and users.

Word Processing Basics

Word processing is the use of a computer application to create, edit, format and print documents.

Common word processing programs today are *Microsoft Word, WordPerfect, AppleWorks* and *WordPro.* Word processing applications specifically designed for children include *Storybook Weaver Deluxe, The Writing Center, Creative Writer* and *ClarisWorks for Kids*.

Word wrap is a word processing feature that automatically moves continuing text to the line below when the previous line becomes full. The ENTER key should be pressed only at the end of a paragraph to move the cursor to the next line.

The paragraph symbol ¶ indicates the end of each paragraph but does not appear on the printed document. Other non-printing characters include a raised dot · representing a space, and an arrow → for a tab. Users may choose whether to display these non-printing characters.

Word Processors today are WYSIWYG in format (pronounced wizzy-wig, short for What You See Is What You Get). The screen shows the appearance of the printed document.

The main features of word processing can be categorized as either editing or formatting functions. Editing features allow users to alter the content of text. Formatting features affect how information appears within a document. Formatting can be performed before the text is entered, while text is entered, or after the text is complete. To format text after it has been entered, highlight the text, then choose the desired formatting options.

Word processors allow users to access a variety of fonts. A font is an individual design of letters, numbers and punctuation characters. Many thousands of fonts exist. Fonts can be categorized as either serif or sans serif. Serif refers to cross strokes at the end points of letters and numbers, and sans is French for without. Compare the following:

Courier New is an example of a serif font.

Arial is an example of a sans serif font.

Consider using a serif font for text in the body of a document because it is easier to read. Sans serif fonts are typically used for shorter amounts of text, such as titles.

The size of a font is measured in **points**. One inch is equal to 72 points, and one centimeter is equal to 28 points. Font sizes of 10 or 12 point are common for text in the body of documents.

Word Processing Basics [continued]

The **font style** refers to the defining characteristics that can be applied to fonts. The most common font styles are *italic*, underline and **bold**. In general, avoid applying multiple styles, such as bold and italics, to text.

Bullets are symbols (often a solid circle or square) used to distinguish items in a list. Bullets are used when listing items of relatively equal importance. Numbers can be inserted automatically to signify order in a list of items.

Margins are the blank spaces at the top, bottom, left and right edges of a document. The word wrap feature keeps text within the specified margins. Most printers require margins of at least half an inch.

Text alignment (also known as justification) refers to how text appears in relation to the left and right margins. Alignment applies to all of the text within a paragraph. Compare the alignment of the following three sentences.

This sentence is left aligned.

This sentence is center aligned.

This sentence is right aligned.

Other sentences in this document are justified (also known as full justification), meaning the text is aligned with both the left and the right margins.

The **header** comprises the text or graphics that appear at the top of every page in a multi-page document. Text or graphics at the bottom of each page comprise the **footer**. Page numbers are often inserted into the header or footer. It is possible to create different headers and footers for odd and even pages, as well as for the first page of a document.

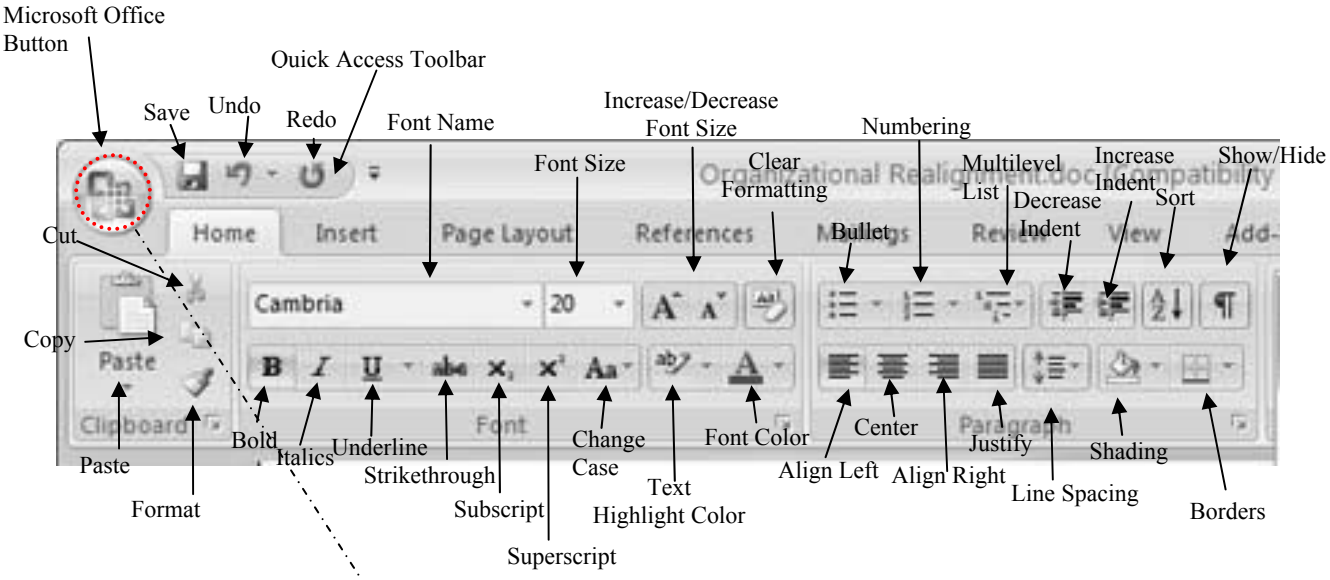
A **footnote** is a note of reference or a comment that appears at the bottom of a page. An **endnote** is a note of reference or a comment that appears at the end of the document. To let readers know that a footnote or an endnote exists for a particular section of body text, superscript numbers (or sometimes symbols) are inserted after the corresponding sentence.

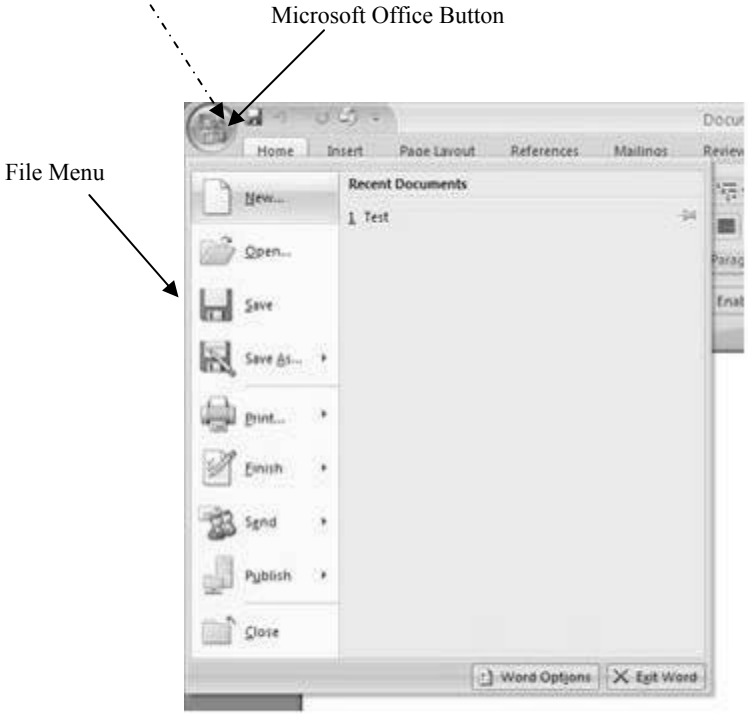
Clip art is a collection of previously created graphics that can be added to documents.

Documents can be printed in different **page orientations**. **Portrait** orientation refers to a printed page that is taller than it is wide. Portrait orientation is the default printing option in almost all applications. **Landscape** orientation is used to print a page that is wider than it is tall.

Word Processing Basics:
Using Microsoft Word 2007

The Ribbon





Using Microsoft Word 2007: Getting Started

To open an existing document:

1. From the MICROSOFT OFFICE button in the top left corner choose OPEN.
2. Locate the file and click OPEN.

To create a new document:

1. From the MICROSOFT OFFICE button choose NEW.
2. Select BLANK DOCUMENT and click CREATE.

To create a new document based on a template or a wizard:

1. From the MICROSOFT OFFICE button choose NEW.
2. Under Template Categories on the left, chose a document type. For some templates you must have internet access.
3. Select the desired document style and click CREATE.

To display a document in Normal View:

- From the VIEW TAB select DRAFT.

To display a document in Print Layout View:

- From the VIEW TAB select PRINT LAYOUT.

To enlarge or to reduce the view of a document:

1. From the VIEW TAB click the ZOOM button, then choose a percentage from the preset choices or a custom percent with the PERCENT drop-down box. 150%
2. Select the desired percentage. Click OK.

To hide or to show non-printing characters:

- From the HOME TAB click the SHOW/HIDE button. ¶

To check spelling while typing:

1. From the REVIEW TAB select SPELLING & GRAMMAR. The document will be auto checked for spelling and grammar.
2. *Word* indicates possible spelling errors with wavy red underlines. To correct an error, right-click a word with a wavy red underline, then select the appropriate correction listed in the pop-up menu.

Using Microsoft Word 2007: Inserting Text and Objects

To insert a table:

1. Position the cursor where the table will be added.
2. From the INSERT TAB select the TABLE button. 
3. Highlight the appropriate number of cells from the menu.
4. Click the left mouse button to insert the table into the document.

To insert a picture from another file:

1. Position the cursor in the location where the picture will be placed.
2. From the INSERT TAB click on the PICTURE button. 
3. Locate and select the appropriate file, then click INSERT.

To insert clip art:

1. Position the cursor where the clip art will be added.
2. From the INSERT TAB click on the CLIP ART button. 
3. Select the clip art to be added and click the insert clip button from the menu on the right side of the screen.
4. Close the INSERT CLIP ART TAB.

To insert SmartArt (Diagram):

1. Position the cursor where the diagram will be added.
2. From the INSERT TAB click on the SMARTART button. 
3. Choose a DIAGRAM TYPE and click OK.

To insert WordArt:

1. From the INSERT TAB click on WORDART.
2. Choose a WordArt style and click OK.
3. Enter and format the text, then click OK.
4. Resize and reposition the WordArt as desired.

To insert a page break:

1. Position the cursor on the line below where the page break will be added.
2. From the INSERT TAB click on PAGE BREAK.

Using Microsoft Word 2007: Inserting Text and Objects [continued]

To insert page numbers:

1. Position the cursor in the footer or where the page numbers will be inserted.
2. From the INSERT TAB click on PAGE NUMBER.
3. Make the desired selections from the Position and Alignment drop-down lists.
4. The page number will be automatically added to the document.

To create a header or a footer:

1. From the INSERT TAB click on HEADER or FOOTER.
2. From the drop-down list choose the HEADER style.
3. To create a footer, click the GO TO FOOTER button in the NAVIGATION SECTION. 
4. Select the CLOSE button in the DESIGN TAB.

To insert a footnote or an endnote:

1. From the REFERENCES TAB click on INSERT FOOTNOTE. 
2. From the REFERENCES TAB click on INSERT FOOTNOTE. 

To insert a symbol not shown on the keyboard:

1. Position the cursor where the symbol will be added.
2. From the INSERT TAB click on SYMBOL.
3. From the drop-down menu, select the symbol or character to be inserted.

To insert the current date and time in a document:

1. Position the cursor where the date or time will be added.
2. From the INSERT TAB click on the DATE AND TIME logo. 
3. Choose the desired option from the Available Formats list, then click OK.

   Tip: To automatically update the date or time whenever a document is opened or printed, check the UPDATE AUTOMATICALLY option in the Date and Time dialog box when inserting the date or time. Otherwise, the document will print the original date or time.

Using Microsoft Word 2007: Editing

To select all of the text in a document:

1. From the HOME TAB click on SELECT.
2. From the drop-down box click on SELECT ALL.

To find a keyword or a phrase in a document:

1. From the HOME TAB click on FIND.
2. Enter the keyword or phrase in the Find What text box, and select FIND NEXT.

   Tip: The located text will be automatically highlighted. To edit the text, close the Find and Replace dialog box and make the necessary changes.

To replace a keyword or a phrase in a document:

1. From the HOME TAB click on REPLACE.
2. Enter the text to be replaced in the Find What text box.
3. Enter the replacement text in the Replace With text box.
4. Select FIND NEXT to locate the text.
5. Choose REPLACE to make the change, then click FIND NEXT to continue or select CLOSE.

   Tip: If multiple occurrences of text are being replaced, choose the REPLACE ALL button.

To view a specific page within a multi-page document:

1. From the HOME TAB click on GO TO.
2. On the GO TO tab of the Find and Replace dialog box, verify that page is selected in the GO TO WHAT list box.
3. Enter the desired page number in the Enter Page Number text box, then click GO TO.
4. Click the CLOSE button to close the dialog box.

To copy text:

1. Highlight the text to be copied.
2. From the HOME TAB click on the COPY button. 

Using Microsoft Word 2007: Editing [continued]

To cut text from a document:

1. Highlight the text to be cut.
2. From the HOME TAB click on the CUT button. 

To paste text that has been copied or cut from a document:

1. Position the cursor where the text is to be pasted.
2. From the HOME TAB click on the PASTE button. 
   Tip: The last text copied or cut to the Clipboard will be pasted.

To undo the last action performed:

1. Select the UNDO button  on the QUICK ACCESS TOOLBAR on the top left.

To undo one or more previous actions:

1. Select the drop-down arrow next to the UNDO button. 
2. Select the appropriate actions to be undone.

To redo the last action undone:

- Select the redo button  on the on the QUICK ACCESS TOOLBAR.

To replace text manually:

1. Highlight the text to be replaced.
2. Enter the new text.

Using Microsoft Word 2007: Formatting

To change the text font:

1. Highlight the text to be changed.
2. Select the appropriate font from the FONT drop-down list. 

To change the size of text:

1. Highlight the text to be changed.
2. Select a point size from the FONT SIZE drop-down list. 

To bold text:

1. Highlight the text.
2. Select the BOLD button  on the FONT GROUP of the HOME TAB.

To italicize text:

1. Highlight the text to be italicized.
2. Select the ITALIC button  on the FONT GROUP of the HOME TAB.

To underline text:

1. Highlight the text to be underlined.
2. Select the UNDERLINE button  on the FONT GROUP of the HOME TAB.

To change the color of text:

1. Highlight the text to be changed.
2. Click the FONT COLOR drop-down arrow. 
3. Select the appropriate color from the menu.

To center a paragraph of text:

1. Highlight the text to be centered.
2. Click the CENTER button  on the PARAGRAPH GROUP of the HOME TAB.

To align a paragraph of text to the left margin:

1. Highlight the text to be aligned.
2. Click the ALIGN LEFT button  on the PARAGRAPH GROUP of the HOME TAB.

To align a paragraph of text to the right margin:

1. Highlight the text to be aligned.
2. Click the ALIGN RIGHT button  on the PARAGRAPH GROUP of the HOME TAB.

Using Microsoft Word 2007: Formatting [continued]

To justify a paragraph of text:

1. Highlight the text to be justified.
2. Click the JUSTIFY button  on the PARAGRAPH GROUP of the HOME TAB.

To increase the indent of a paragraph:

1. Highlight the text to be indented.
2. Choose the INCREASE INDENT button  on the PARAGRAPH GROUP of the HOME TAB.

To decrease the indent of a paragraph:

1. Highlight the text to be changed.
2. Choose the DECREASE INDENT button  on the PARAGRAPH GROUP of the HOME TAB.

To change the vertical alignment of text in a document:

1. From the PAGE LAYOUT TAB, open the PAGE SETUP box by clicking  in the bottom right corner of the PAGE SETUP GROUP. This button is called the Dialog Box Launcher.
2. On the LAYOUT tab, choose a VERTICAL ALIGNMENT from the drop-down box.
3. Click OK.

To change line spacing:

1. Highlight the paragraphs to be changed.
2. From the PAGE LAYOUT TAB, open the PARAGRAPH box by clicking  in the bottom right corner of the PARAGRAPH GROUP.
3. On the INDENTS AND SPACING TAB, select an option from the LINE SPACING drop-down list.
4. Click OK.

To create a bulleted list from text:

1. Highlight the text to be bulleted.
2. Click the BULLETS button  on the PARAGRAPH GROUP of the HOME TAB.

To modify a bulleted list:

1. Highlight the bulleted list to be changed.
2. Click the drop-down arrow on the BULLETS button on PARAGRAPH GROUP of the HOME TAB.
3. On the BULLET drop-down, select a bullet.

Using Microsoft Word 2007: Formatting [continued]

To create a numbered list from text:

1. Highlight the text to be numbered.
2. Click the NUMBERING button  on the PARAGRAPH GROUP of the HOME TAB.

To modify a numbered list:

1. Highlight the numbered list to be changed.
2. Click the drop-down arrow on the NUMBERING button on the PARAGRAPH GROUP of the HOME TAB.
3. On the NUMBER drop-down list, select the appropriate options.

To add a border to a page in a document:

1. From the PAGE LAYOUT TAB choose PAGE BORDERS.
2. Select the desired options and click OK.

To format text as columns:

1. Highlight the text to be formatted as columns.
2. Choose the COLUMNS button  on the PAGE LAYOUT TAB.
3. Select the appropriate number of columns from the drop-down menu.

To set a tab:

1. Highlight the paragraphs to be formatted.
2. Click the horizontal ruler at the desired location for the tab.

   Tip: If you do not see the ruler at the top of the screen, go to the VIEW TAB and click the checkbox next to RULER.

Using Microsoft Word 2007: Finishing Touches

To check spelling and grammar:

1. From the REVIEW TAB select SPELLING & GRAMMAR. The document will be auto checked for spelling and grammar.
2. *Word* indicates possible spelling errors with wavy red underlines. To correct an error, right-click a word with a wavy red underline, then select the appropriate correction listed in the pop-up menu.
3. When a possible spelling or grammatical error has been located, make the necessary changes in the Spelling and Grammar dialog box and select CHANGE.

   Tip: To check spelling or grammar on a particular section of the document, highlight only that section before choosing the SPELLING & GRAMMAR button.

To count the number of words in a document:

- From the REVIEW TAB select WORD COUNT. 

To change the margins of a document:

1. From the PAGE LAYOUT TAB select MARGINS.
2. On the MARGINS drop-down, select the desired margin settings.

To save a new document:

1. From the MICROSOFT OFFICE button choose SAVE.

   or

1. Click the SAVE button  on the QUICK ACCESS TOOLBAR.
2. Navigate to the appropriate location to store the document, enter a name for the document in the File Name box and select SAVE.

   Tip: To save the document in a new folder, click the NEW FOLDER button  before selecting SAVE.

To save a document with the same name:

1. From the MICROSOFT OFFICE button choose SAVE.

   or

2. Click the SAVE button  on the QUICK ACCESS TOOLBAR.

Using Microsoft Word 2007: Finishing Touches [continued]

To save a document with a new name:

1. From the MICROSOFT OFFICE button choose SAVE AS.
2. Navigate to the desired location and enter a new name in the File Name box.
3. Click SAVE.

To preview a document before printing:

1. From the MICROSOFT OFFICE button choose PRINT then PRINT PREVIEW.

   or

1. Click the PRINT PREVIEW button  on the QUICK ACCESS TOOLBAR.
2. Select the CLOSE button to exit Print Preview.

   Tip: The PRINT PREVIEW button may have to be added by customizing this toolbar.

To print a document:

1. From the MICROSOFT OFFICE button choose PRINT.
2. Enter the range of pages and the number of copies to be printed.
3. Click OK.

   Tip: To print the whole document, click the PRINT button  on the QUICK ACCESS TOOLBAR.

To print an envelope:

1. From the MAILINGS TAB choose ENVELOPES.
2. On the ENVELOPES tab, enter the envelope size under OPTIONS and click ok.
3. Enter the delivery address and the return address (or select the OMIT check box) and click PRINT.

   Tip: To print an envelope for an existing letter, select the name and address within the text body, then follow the steps above and verify that the delivery address appears on the ENVELOPES tab.

To close a document:

- From the MICROSOFT OFFICE button choose CLOSE.

Additional Features in Microsoft Word 2007:

Quick Access Toolbar:

1. Tools or commands that are not as readily available as you would like can be easily accessed by adding them to the QUICK ACCESS TOOLBAR.
2. To add a button right click on a feature in a tab, then click ADD TO QUICK ACCESS TOOLBAR. You may remove a button the same way, by right clicking and choosing REMOVE FROM QUICK ACCESS TOOLBAR.

Graphics Basics

The term graphics refers to the use of a computer to create and modify images. *Microsoft Paint 5.1* is an example of a graphics program. *Microsoft Office 2000 Professional* contains graphics tools that are collectively known as *Office Art*. The newest drawing tool to be added to the Microsoft family is called *SmartArt*, and is available in the Office 2007 Suite. *SmartArt* graphics allow you to create process charts, radial charts, organization charts, and more. More advanced graphics applications include *Adobe Illustrator, Adobe Photoshop, CorelDRAW* and *Dabbler by Fractal Design.*

Common graphics file formats include:

*.bmp (Bitmap graphics), *.jpg (Joint Photographic Experts Group), *.gif (Graphics Interchange Format) and *.tif (Tagged-Image File Format).

Painting Programs:

The two basic types of computer graphics applications are paint programs and draw programs. *Paint* is an example of a paint program.

1. Graphics are created by modifying pixels. A pixel is a single point in a graphic image.
2. Images are known as bitmap graphics (or raster graphics).
3. Painting tools mimic such real-life art tools as a pencil, an eraser, an airbrush, a paintbrush and a paint bucket.
4. Lines and shapes of varying thickness and color can be created.
5. Any portion of the picture can be selected to be moved, resized, flipped or rotated.
6. Clipart images can be inserted and modified.
7. Graphics become distorted (pixelated) when enlarged.
8. Painting programs are best suited for free-form artwork including delicate designs, shading and other artistic effects.

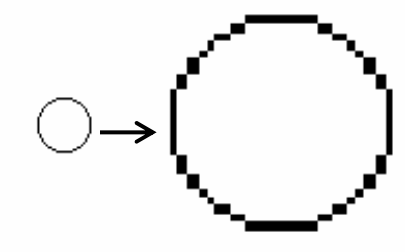
Drawing Programs:

Office Art is a set of drawing tools found in *Microsoft Word 2003, Excel 2003 and PowerPoint 2003,* and is accessible through the Drawing toolbar. The Drawing toolbar is not available in most of *Microsoft Office 2007*, and has been replaced by the Ribbon.

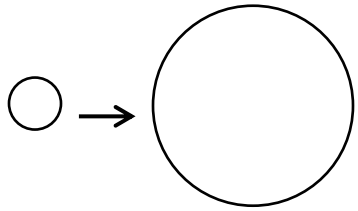
1. Images are known as object-oriented graphics (or vector graphics).
2. The directional lines (vectors) that constitute a graphic are stored as mathematical formulas.
3. Graphics are treated as separate objects.

Graphics Basics [continued]

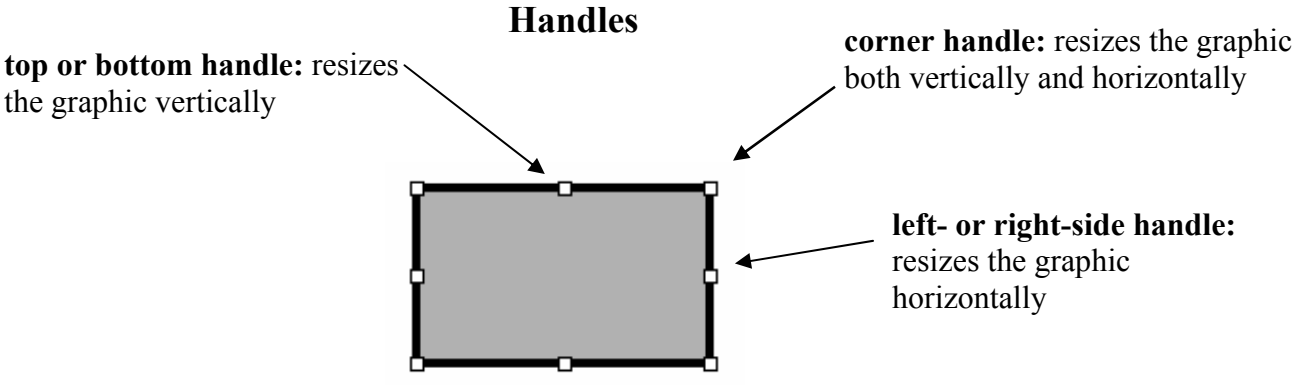
1. Graphics can be grouped and manipulated as one object or ungrouped and manipulated as separate objects.
2. Graphics are created in separate layers that can be reordered.
3. Graphics can be easily modified at any time.
4. Lines and shapes of various thickness and color can be created.
5. Objects can be selected and moved, resized, flipped or rotated.
6. Clip art can be inserted and modified.
7. Graphics do not become distorted when enlarged.
8. Drawing programs are best-suited for projects using shapes and lines in which the ability to reposition and resize is important.



This circle was enlarged in a painting program. Note the distortion.



This circle was enlarged in a drawing program. No distortion occurred.



Graphics Basics: Sources of Graphics

Original Work

Graphics created from scratch are considered original artwork. When time is limited, previously created graphics can be reused and modified. Some benefits of creating original images include fostering artistic and creative skills, ensuring the complete ownership of the material (no copyright issues) and promoting exploration and discovery of the capabilities of the graphics tools. Disadvantages include the time-consuming nature of creating original artwork, the difficulty of making realistic-looking images and the limitations of the graphics capabilities within some programs.

Scanners

Scanners are peripheral devices that convert artwork or text from a printed page to an electronic file which can be stored or manipulated in other programs. The conversion process is known as digitizing. The two main types of scanners are flatbed, which are similar to a photocopy machine, and handheld, which are dragged across the page. Like printer quality, scanner quality is determined by its dpi (dots per inch). Some advantages of scanning artwork include the abilities to use previously created images, to scan photographs and to personalize documents easily. Some disadvantages include potential copyright violations, the length of time required to scan many images and the storage space demands that result from the large file sizes of scanned photographs and pictures.

Digital Cameras

A digital camera is similar to a regular camera in that a user points the lens of the handheld device at a subject, looks through a viewfinder and presses a button to take a picture. A critical difference, however, is that a digital camera does not use film. Instead, images are saved digitally and can be copied to a computer's hard drive with a connecting cable. Benefits of using a digital camera include the elimination of expensive and time-consuming film processing and scanning, the portability of the camera and low operating costs. Some negative aspects include the high price of the camera, lower-quality pictures than film-based cameras, long downloading time and large hard drive space requirements.

Graphics Basics: Sources of Graphics [continued]

Clip Art

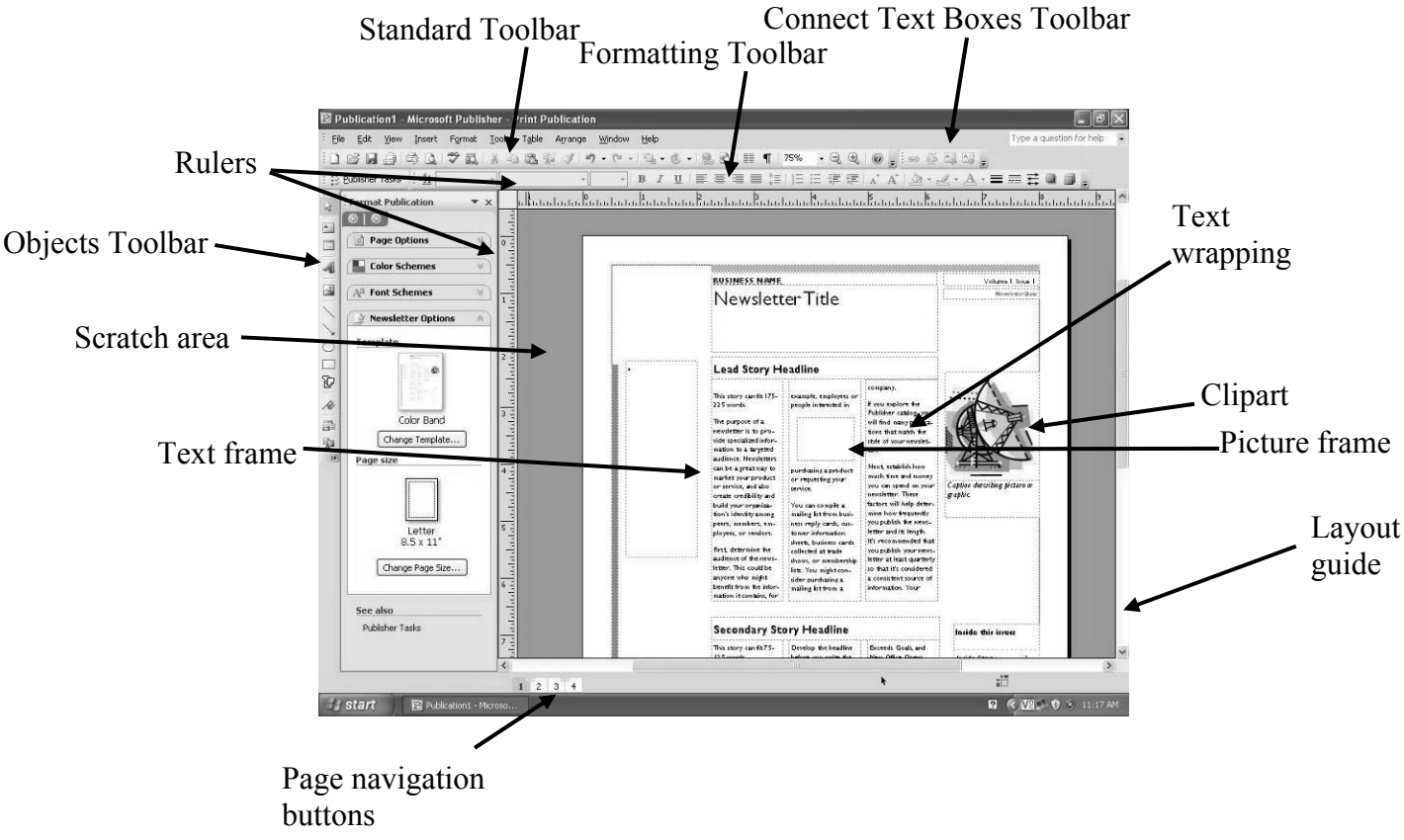
Clip Art is previously created digital artwork intended to be integrated into documents. A collection of clip art is known as a clip art library. To make it easier for users to browse and locate specific images, graphics in clip art libraries are often grouped in such categories as animals, food, household, maps and transportation. When some applications, including *Microsoft Word 2007* and *Microsoft Publisher 2007*, are installed, a clip art library is copied onto the computer's hard drive. With the exception of creating another clip art library, clip art can be used in any way without copyright violation. There are CD-ROMs that contain clip art libraries of images either within a particular category or with an assortment of categories.

Desktop Publishing: Basics

Desktop publishing is the process of using a computer to position text and graphics on a page to produce printed documents such as signs, newspapers, newsletters, magazines, brochures, banners, cards, calendars, letterheads, certificates, business cards, reports and resumes. The term desktop publishing was coined in the mid-1980s with the arrival of the Apple Macintosh, page layout software and the laser printer. For the first time, people could "publish" from their "desktop", creating professional-looking printed materials at home.

Examples of desktop publishing applications include *Microsoft Publisher 2007, Adobe PageMaker* and *QuarkXPress*. Other software packages with desktop publishing features include the *Print Shop* series (from Broderbund), *Print Artist* (from Sierra On-Line), *The Children's Writing and Publishing Center* (from The Learning Company) and *Corel Print House.*

Desktop Publishing Terminology



Desktop Publishing Basics [continued]

background: the layer in which text and images that appear in the same location on every page of a document are placed

clip art: previously created digital artwork that is intended to be integrated into documents

foreground: the layer in which the text and images that vary from page to page in a document are placed

Greek text: a block of nonsensical text (representing the size and position of the actual text) used to evaluate the aesthetics of the page design

grouping: joining together separate objects so the components can be manipulated as one object

importing: the process of inserting text or graphics that originated in one program into another program

landscape: the page orientation in which the page is wider than it is tall

layers: invisible sheets on which users can place text or graphics so the objects are independent of other objects on other sheets

layout: the process of arranging text and graphics on a page

layout guides: nonprinting lines that can be helpful when placing text and graphics within a document

linking: connecting text frames so that the excess text from the first frame flows into the second frame

portrait: the page orientation in which the page is taller than it is wide

picture frame: a movable and resizable placeholder for a graphic

pull quote: a short phrase set in a larger type size that repeats information found within the article

rulers: on-screen bars that measure the page horizontally and vertically

scratch area: the nonprinting work area in which text and graphics can be placed before they are moved into a document

text frame: a placeholder for text, which can be moved or resized

text wrapping: the way that text flows around a graphic

wizard: a Help feature that guides users through multistep processes to create common documents; including creating cards, newsletters, banners and resumes

Desktop Publishing: Using Microsoft Publisher 2007

To create a new publication:

1. Choose FILE → NEW.
2. In the POPULAR PUBLICATION TYPES Task Pane, select the appropriate options to create the desired publication.
3. When finished click CREATE.

To create a bulleted list or a numbered list:

1. Highlight the desired lines of text.
2. Choose the BULLETS button  on the Formatting toolbar.

   Tip: To apply customized bullets, choose FORMAT → BULLETS AND NUMBERING. From the BULLETS tab, choose the desired bullet shape and size and select OK.

To undo the last action:

- Choose EDIT → UNDO.

To insert page numbers on every page:

1. Choose INSERT → PAGE NUMBERS.
2. Select the POSITION and ALIGNMENT and click OK.

To create a calendar, an advertisement, a coupon or a logo for an existing publication:

1. Choose INSERT → DESIGN GALLERY OBJECT.
2. On the OBJECTS BY CATEGORY tab, select CALENDARS, ADVERTISEMENTS, COUPONS or LOGOS from the Categories list.
3. Choose the desired publication option in the menu to the right and click INSERT OBJECT.
4. Resize and reposition the object and make any desired changes.

   Tip: You can double click on the desired publication option and it will be added to your document.

To insert a new page:

1. Select INSERT → PAGE.
2. Enter and choose the desired options and click OK.

To preview the document as it will be printed:

1. Select VIEW
2. Click on BOUNDARIES AND GUIDES to remove the checkmark.

Using Microsoft Publisher 2007 [continued]

To change the orientation of a page:

1. Select FILE → PAGE SETUP.
2. In the BLANK PAGE SIZES group, select a page type.
3. Choose a page option and click OK.

To view the page at a specific percentage:

- Click the ZOOM drop-down box on the Standard toolbar and choose a percentage.

To view a different page within a document:

- Click the appropriate PAGE NAVIGATION button at the bottom-left corner of the screen.

Text Formatting and Editing

To insert text:

1. Click the TEXT FRAME tool  on the Objects toolbar.
2. Drag to create a text frame.
3. Enter text.

To import text:

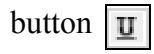
1. Confirm that a text frame is selected.
2. Choose INSERT → TEXT FILE.
3. Navigate to and select the desired text file and click OK.

To change the text font or text size:

1. Highlight the desired text.
2. Make the desired selections from the Font drop-down list or the Font Size drop-down list.

Using Microsoft Publisher 2007: Text Formatting and Editing [continued]

To change the text style:

1. Highlight the desired text.
2. Choose the BOLD button  , the ITALIC button  or the UNDERLINE button  on the Formatting toolbar.

To change the color of text:

1. Highlight the desired text.
2. Select the FONT COLOR button  on the Formatting toolbar, then select a color.

To change text alignment:

1. Highlight the desired text.
2. Select the LEFT button  , the CENTER button  , the RIGHT button  or the JUSTIFY button on the Formatting toolbar.

To link two text frames:

1. Verify that a second frame already exists. If not, create one.
2. Click the text frame containing the text. Confirm that the TEXT IN OVERFLOW button  is displayed on the frame's bottom edge.
3. Choose CREATE TEXT BOX LINK button  from the Connect Text Boxes toolbar on the top right.
4. With the pitcher-shaped pointer  , select the second text frame into which the overflow text should be placed.

To change the number of columns in a text frame:

1. Select a text frame.
2. On the formatting toolbar choose the column button.
3. Highlight the number of columns.

To wrap text closely around an image:

1. Select a graphic.
2. Choose FORMAT → PICTURE.
3. In the LAYOUT tab, select the features you desire and click OK.

Using Microsoft Publisher 2007: Text Formatting and Editing [continued]

To insert the date or time into a text frame:

1. Position the cursor in the desired location within a text frame.
2. Choose INSERT → DATE AND TIME.
3. Select an option from the Available Formats list.
4. Choose the UPDATE AUTOMATICALLY check box if desired, then click OK.

Graphics Formatting and Editing

To insert clip art:

1. Select the PICTURE FRAME tool on the Objects toolbar.
2. Choose the Clip Art logo from the dropdown menu.
3. Enter a keyword or keywords in the Search For Clips box, then press the GO.
4. Choose the desired clip art image and it will automatically be entered into the document.
5. Close the Insert Clip Art window.

To insert a picture file:

1. Select the PICTURE FRAME tool on the Objects toolbar
2. Choose PICTURE FROM FILE.
3. Drag and create graphics frame.
4. Navigate to and select the desired picture file from the Insert Picture box, then choose INSERT.

To create a straight line:

1. Choose the LINE tool on the Objects toolbar.
2. Click and hold down the mouse button to establish the line's starting point, then drag to create the line.

   Tip: Holding down the SHIFT key while dragging the mouse can create horizontal, vertical and 45-degree angle lines.

To create a straight line with one or two arrowheads:

1. Select an existing line, or draw a new line.
2. Choose the ARROW STYLE button on the Formatting toolbar and choose an arrow style from the drop-down box.

Using Microsoft Publisher 2007: Graphics Formatting and Editing [continued]

To change the thickness and color of a line:

1. Select a line.
2. Choose the LINE/BORDER STYLE button  on the Formatting toolbar.
3. Select one of the displayed options in the menu, or choose MORE STYLES to select a customized line width, style and color.

To create an oval:

1. Select the OVAL tool  on the Objects toolbar.
2. Drag the mouse diagonally to create an oval.

   Tip: Holding down the SHIFT key while dragging creates a circle.

To create a rectangle:

1. Click the RECTANGLE tool  on the Objects toolbar.
2. Drag the mouse diagonally to create a rectangle.

   Tip: Holding down the SHIFT key while dragging creates a square.

To create a custom shape:

1. Select the CUSTOM SHAPES tool  on the Objects toolbar.
2. Click the desired shape from the pop-up menu, then drag to create the shape.

   Tip: Holding down the SHIFT key while dragging creates a shape with the same horizontal and vertical proportions.

To crop a bitmap image:

1. Select an image.
2. Click the CROP PICTURE tool  on the Picture toolbar.
3. Drag a handle to crop the image.

Using Microsoft Publisher 2007: WordArt

To insert WordArt:

1. Click the WORDART FRAME tool  on the Objects toolbar.
2. Select the WordArt shape, font and font size as desired, then click OK.
3. Enter text into the Enter Your Text Here box, then click OK.
4. Resize WordArt frame if needed.

To change the style of the WordArt:

1. Make sure the WordArt is chosen, and click EDIT TEXT on the WordArt toolbar.
2. Use the BOLD button  to bold text and the ITALIC button  to italicize text.
3. From the WordArt toolbar select the SAME LETTER HEIGHTS button  to make all of the letters the same height.
4. To change the alignment of the WordArt text, click the JUSTIFICATION button  and select one of the alignment options.
5. Select the CHARACTER SPACING button  to change the spacing between the letters.

To change the orientation of the WordArt:

1. Verify that the WordArt toolbar is open. If it is not displayed, click the WordArt.
2. Select the WORDART VERTICAL TEXT button  to toggle the WordArt between Vertical and Horizontal.
3. From the Arrange Menu choose ROTATE OR FLIP to rotate the WordArt at specified angles

To change the color, shading, shadow and border for WordArt:

1. From the Formatting menu choose the FILL COLOR button  to change the color of the text.
2. Choose the LINE COLOR button  to change the color of the border around the text.
3. Choose the SHADOW STYLE button  to add shadow to the WordArt.

Using Microsoft Publisher 2007: Working with Objects

To group objects:

1. Hold down the SHIFT key and click the objects to select them.
2. Choose ARRANGE → GROUP OBJECTS.

To ungroup an object:

1. Confirm that the grouped object is selected.
2. Choose ARRANGE → UNGROUP OBJECTS.

To create a table:

1. Select the INSERT TABLE button  on the Objects toolbar.
2. Drag to create a table frame of the desired dimensions.
3. In the Create Table dialog box, enter the number of rows and columns, choose a table format and click OK.
4. Enter information into the cells of the table, pressing the TAB key to move to the next cell.

To change an object's layer:

1. Select an object.
2. Choose the BRING FORWARD button  on the Standard toolbar.

   or

1. Select an object.
2. Choose ARRANGE → ORDER → BRING TO FRONT or ARRANGE → ORDER → SEND TO BACK.

To move an object:

1. Select an object.
2. Position the pointer inside the object.
3. When the pointer takes the shape of a quad arrow with a moving-truck icon, drag the object.

Using Microsoft Publisher 2007: Working with Objects [continued]

To move an object in small increments:

1. Select an object.
2. Choose ARRANGE → NUDGE.
3. Click one of the arrow buttons to move the object in the desired direction.

   Tip: Objects can also be nudged by holding down the ALT key and pressing one of the arrow keys on the keyboard.

To duplicate an object:

1. Select the object.
2. Choose the COPY button  on the Standard toolbar or select EDIT → COPY.
3. Choose the PASTE button  on the Standard toolbar or select EDIT → PASTE.

   Tip: Use the keyboard shortcut of CONTROL + C for the COPY command and CONTROL + V for the PASTE command.

To resize an object:

1. Select an object.
2. Position the pointer on the handle.
3. When the pointer takes the shape of a double arrow labeled *resize*, drag the handle.

   Tips: The corner handles resize the selection both horizontally and vertically. The left- and right-side handles resize the object horizontally. The top and bottom handles resize the object vertically. Holding down the SHIFT key will keep the proportions of the object intact as it is resized.

To fill an object with a solid color:

1. Select an object.
2. Choose the FILL COLOR button  on the Formatting toolbar and select a color or an option from the drop-down menu.

To fill an object with a pattern:

1. Select an object. Choose the FILL COLOR button  on the Formatting toolbar and select FILL EFFECTS.
2. Click the PATTERNS tab and choose a pattern style.
3. Make the desired selections from the FOREGROUND and BACKGROUND drop-down menus, then click OK.

Using Microsoft Publisher 2007: Working with Objects [continued]

To fill an object with a gradient:

1. Select an object. Choose the FILL COLOR button  on the Formatting toolbar and select fill effects. Click the GRADIENT tab and choose a gradient style.
2. Make the desired selections from the Color 1 and Color 2 drop-down menus, then click OK.

To add a border to an object:

1. Select an object. Choose the LINE/BORDER STYLE button  on the Formatting toolbar.
2. Choose one of the displayed line widths in the drop-down menu or select MORE LINES to customize the line width, style and color.

To add a shadow to an object:

1. Select an object.
2. Choose SHADOW STYLE button. 

To flip an object:

1. Select an object.
2. ARRANGE → ROTATE OR FLIP → FLIP HORIZONTAL button  or ARRANGE → ROTATE OR FLIP → FLIP VERTICAL button. 

To rotate an object 90 degrees:

1. Select an object.
2. ARRANGE → ROTATE OR FLIP → ROTATE RIGHT button  or ARRANGE → ROTATE OR FLIP → ROTATE LEFT button. 

To rotate an object any number of degrees:

1. Select an object.
2. ARRANGE → ROTATE OR FLIP → FREE ROTATE button. 
3. Rotate the object from the corners.

To align objects:

1. Select all of the objects to be aligned. Choose ARRANGE → ALIGN OR DISTRIBUTE.
2. Choose align left, align center, align right, align top, align middle or align bottom.

Multimedia Basics

Multimedia can be defined as the use of two or more media elements, such as text, graphics, sound, animation and video. Although a book containing text and graphics would be considered multimedia by this definition, most people consider television and computers typical multimedia environments. The term hypermedia is often used as a synonym for multimedia.

Common multimedia applications include *Microsoft PowerPoint 2007*, *HyperStudio* (by Knowledge Adventure) and *Director* (by Macromedia). For younger children, *Kid Pix Studio Deluxe* (by Broderbund) and *Storybook Weaver Deluxe* (by The Learning Company) are appropriate. Other common multimedia applications are encyclopedias on CD-ROM including *Microsoft Encarta, Grolier Multimedia Encyclopedia, Britannica CD* and *World Book Multimedia Encyclopedia.*

Many different media elements may be used when creating a multimedia presentation. The following is a list of file extensions and file formats.

- *.AVI (Audio Visual Interleave, a common *Windows* format for audio/video files)
- *.MOV (a Macintosh-based audio/video file)
- *.WAV (a *Windows* sound file)
- *.JPG (Joint Photographic Experts Group, a graphics format often found on the World Wide Web)
- *.GIF (Graphics Interchange Format, a graphics format often found on the World Wide Web)
- *.BMP (Bitmap, a common format for *Windows* bitmap graphics)
- *.WMF (Windows Metafile, a *Windows* object-oriented graphic)

Multimedia Basics [continued]

Related Terms:

animation: a series of still images displayed in rapid succession to create the illusion of movement

branching slide: a slide that is linked to another slide in a presentation, providing users with a choice of which slide to view next

digitalization: the process of transferring a film or video image to a format that a computer can use

hot spot: an area on the screen that can be selected to trigger an action, such as playing a sound, animating a graphic or displaying a different slide

medium: a single method used to communicate a message to an audience, including video, sound, text and graphics

multimedia: a computer-based method of presenting information by using more than one medium of communication, such as text, graphics, sound and video

slide: a screen in a *PowerPoint* presentation resembling an index card, on which users may arrange media elements

Slide Master: a special slide that can be used to determine the layout and formatting of all slides in a presentation

slide show: in presentation programs, several screens of information organized in a particular sequence

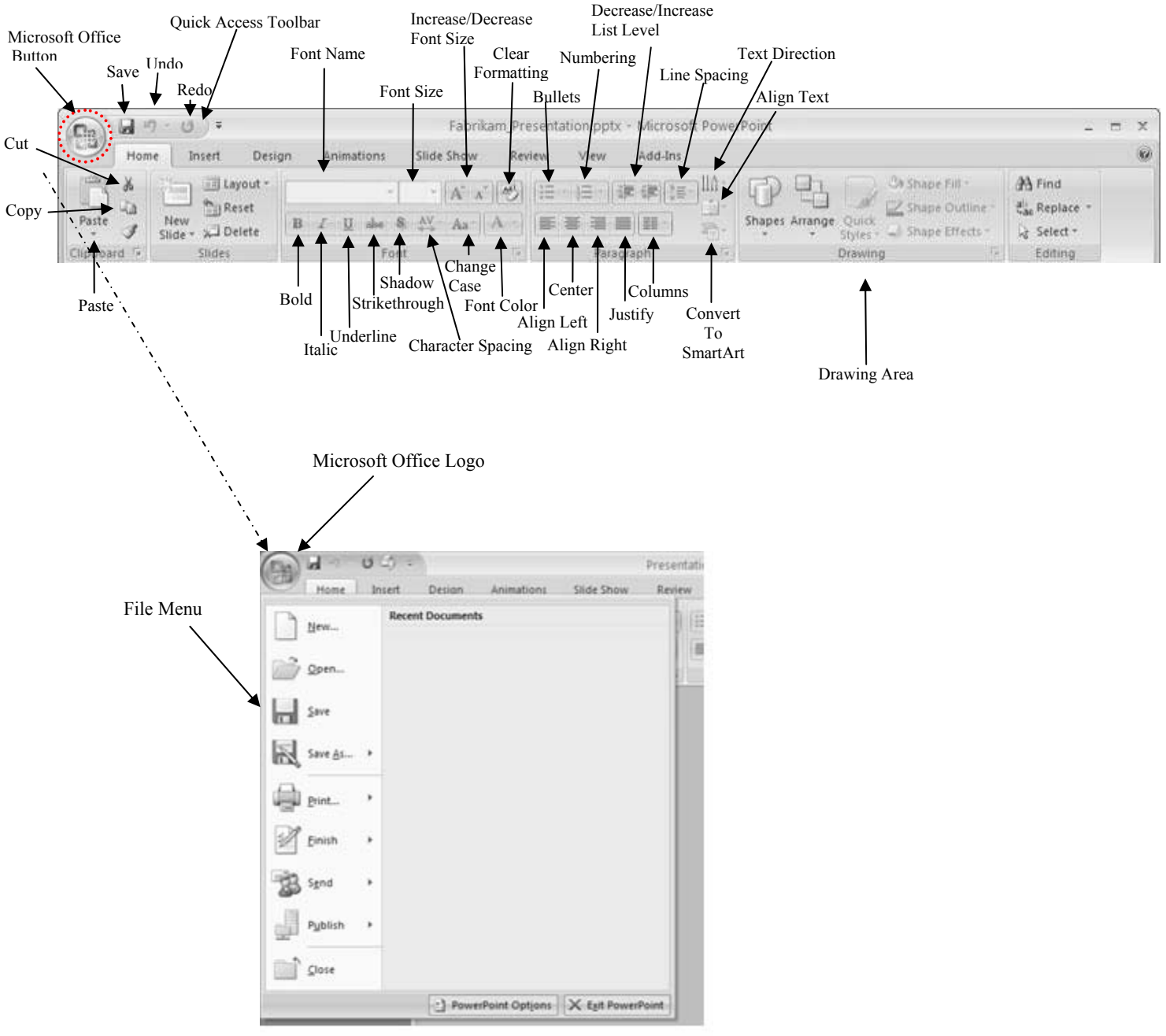
stereo: sound that is recorded and played back on two or more channels

storyboard: a series of panels on which a set of sketches is arranged for planning purposes

transition: the special effect that occurs when one slide advances to the next in a presentation

Using Microsoft PowerPoint 2007

The Ribbon



Using PowerPoint 2007: Getting Started

To create a new presentation:

1. From the MICROSOFT OFFICE button in the top left corner choose NEW.
2. In the NEW PRESENTATION Task Pane, select BLANK PRESENTATION, click CREATE.
3. In the SLIDE GROUP of the HOME TAB, click on LAYOUT and select a slide layout for the first slide.

To open an existing presentation:

1. From the MICROSOFT OFFICE button in the top left corner choose OPEN.
2. Locate the file to be opened and click OPEN.

To create a new slide:

- In the SLIDE GROUP of the HOME TAB, click on ADD SLIDE.

To change the slide layout:

1. In the SLIDE GROUP of the HOME TAB, click on LAYOUT and select a slide layout.
2. This will only change the slide you are currently on.
3. Choose a new master style in the VIEW TAB on the MASTER LAYOUT GROUP to change the style of all slides.

To change the slide theme:

1. In the THEMES GROUP of the DESIGN TAB, click on a theme.
2. This theme will apply to all slides in the presentation.

   Tip: You can scroll through the theme options by pressing the down arrow on the right side of the themes box.

Using Microsoft PowerPoint 2007: Inserting Text and Objects

To insert a text box:

1. Choose the TEXT BOX tool  on the INSERT TAB.
2. Hold down the mouse button and drag to create a text box.

To insert clip art:

1. Choose the CLIP ART tool on the INSERT TAB.
2. Enter a keyword or keywords in the Search text box, then press GO.
3. Choose the desired clip art image and it will automatically be added to the current slide.
4. Close the CLIP ART Task Pane.

To insert a picture from a file:

1. Choose the PICTURE tool on the INSERT TAB.
2. Navigate to the appropriate folder, select the file and click INSERT.

To insert WordArt:

1. Click the WORDART button  on the INSERT TAB.
2. Select a WordArt style.
3. Double click in the WordArt box to edit the text.
4. You can format the WordArt on the FORMAT TAB.

Using Microsoft PowerPoint 2007: Inserting Text and Objects [continued]

To insert a chart:

1. Click the CHART button  on the INSERT TAB.
2. Choose a chart style from the CREATE CHART box and click OK.
3. Edit the chart's contents in the Datasheet window.
4. Click a blank space on the slide to return to the presentation.
5. To close the Datasheet, go to the MICROSOFT OFFICE button in the top left corner choose CLOSE.
6. You can edit the data by choosing the EDIT DATA SOURCE button on the DESIGN TAB.

To insert a header or a footer:

1. From the INSERT TAB choose HEADER & FOOTER. 
2. Select the desired options and click APPLY TO ALL.

To insert the date and time:

1. From the INSERT TAB choose DATE & TIME. 
2. Mark the checkbox next to Date and time and click APPLY TO ALL.

Editing

To cut text from a presentation:

1. Highlight the text to be cut.
2. Choose the CUT button  on the HOME TAB.

To copy text:

1. Highlight the text to be copied.
2. Select the COPY button  on the HOME TAB.

Using Microsoft PowerPoint 2007: Editing [continued]

To paste the most recently copied or cut text:

1. Position the cursor where the text will be pasted.
2. Choose the PASTE button  on the HOME TAB.

To undo the last action:

- Select the UNDO button  on the QUICK ACCESS TOOLBAR on the top left.

To redo the last undone action:

- Select the REDO button  on the QUICK ACCESS TOOLBAR.

To delete a slide:

1. In Normal View, display the slide to be deleted.
2. Choose the DELETE button on the HOME TAB.

To duplicate an object in the presentation:

1. Select the object to be duplicated.
2. From the HOME TAB click on the PASTE drop-down menu and choose DUPLICATE.

   Tips: Because clicking a text box once only positions the cursor, text boxes need to be clicked twice before the DUPLICATE command becomes available. To select more than one object at a time to be duplicated, hold down the SHIFT key while selecting objects.

To find text in a presentation:

1. Select FIND from the HOME TAB.
2. In the Find What box, enter the text to be located and click FIND NEXT.
3. After the text has been found, close the Find dialog box.

To replace text in a presentation:

1. Select REPLACE from the HOME TAB.
2. In the Find What box, enter the text to be replaced.
3. Enter the replacement text in the Replace With box and click FIND NEXT or REPLACE ALL.
4. After the text has been replaced, close the Replace dialog box.

Using Microsoft PowerPoint 2007: Formatting

To animate an object:

1. Select the object to be animated.
2. Click on the ANIMATIONS TAB and select the desired animation effect from the ANIMATE drop-down box.
3. To add sound effects to an animation, choose a sound from the TRANSITION SOUND drop-down box.

To format the slide color scheme:

1. From the DESIGN TAB click on the COLORS drop-down box.
2. Highlight a color and you will see a preview of your slide will look.
3. Once you click on a color it will apply to all slides.

To change the background color of the presentation:

1. From the DESIGN TAB click on the BACKGROUND STYLES drop-down box.
2. Select a color from the drop-down menu or click on BACKGROUND to add a gradient, texture or pattern fill.

To reorder slides within a presentation:

1. From the VIEW TAB choose SLIDE SORTER.
2. Drag the slide to be reordered to the appropriate location.
3. From the VIEW TAB choose NORMAL after the slides have been properly ordered.

   Tip: You can also reorder the slides in the preview tab on the left side in NORMAL view.

To resize a text box or a picture:

1. Select the object to be resized.
2. Drag one of the object's handles until it is properly resized.

Using Microsoft PowerPoint 2007: Formatting [continued]

To bold text:

1. Select the text to be bolded.
2. Choose the BOLD button  on the HOME TAB.

To italicize text:

1. Select the text to be italicized.
2. Choose the ITALIC button  on the HOME TAB.

To underline text:

1. Select the text to be underlined.
2. Choose the UNDERLINE button  on the HOME TAB.

To change the text font:

1. Highlight the text.
2. Select a new font from the FONT drop-down list on the HOME TAB.

To change the text size:

1. Highlight the text.
2. Select a new font size from the FONT SIZE drop-down list.

To change the text color:

1. Highlight the text
2. Select a color from the FONT COLOR drop-down list. 

To increase or decrease line or paragraph spacing:

1. Highlight the text.
2. Choose the LINE SPACING drop-down menu  from the HOME MENU.
3. Make the desired selection or click on more for additional options then click OK.

Using Microsoft PowerPoint 2007: Formatting [continued]

To change text alignment:

1. Highlight the text.
2. From the HOME TAB choose the desired alignment option (Left/Center/Right/Justify).

To add bullets to text:

1. Highlight the text to be bulleted.
2. Select the BULLETS button  on the HOME TAB.

   Tips: To apply custom bullets, or to change the appearance of existing bullets, choose BULLETS drop-down menu. A bullet is added each time the ENTER key is pressed.

Finishing Touches

To add a transition between two slides:

1. From the ANIMATIONS TAB click on a transition option in the TRANSITION TO THIS SLIDE GROUP.
2. You can scroll through all options by moving the scroll bar on the right of the transition options box. To see all options at one time click the MORE arrow at the bottom of the scroll bar.

   Tip: Select APPLY TO ALL to apply a transition to all of the slides in a presentation.

To check the spelling in the presentation:

1. Select the SPELLING button  on the REVIEW TAB.
2. Follow the prompts to correct any misspelled words.

To preview slide animation:

1. From the ANIMATIONS TAB select PREVIEW.
2. To edit, choose CUSTOM ANIMATION, Modify as needed and click PLAY.
3. When the preview is complete, close the CUSTOM ANIMATION Task Pane.

Using Microsoft PowerPoint 2007: Finishing Touches [continued]

To view the slide show presentation:

1. From the SLIDE SHOW TAB choose FROM BEGINNING or FROM CURRENT SLIDE.
2. Hit the SPACEBAR to transition between slides more quickly.
   Tip: Press the ESCAPE key to end the slide show and to return to Normal View.

To set slide show options:

1. From the SLIDE SHOW TAB choose SET UP SLIDE SHOW.
2. Select the desired options and click OK.

To change the page setup of the presentation:

1. From the DESIGN TAB click on PAGE SETUP.
2. Make the appropriate changes and click OK.

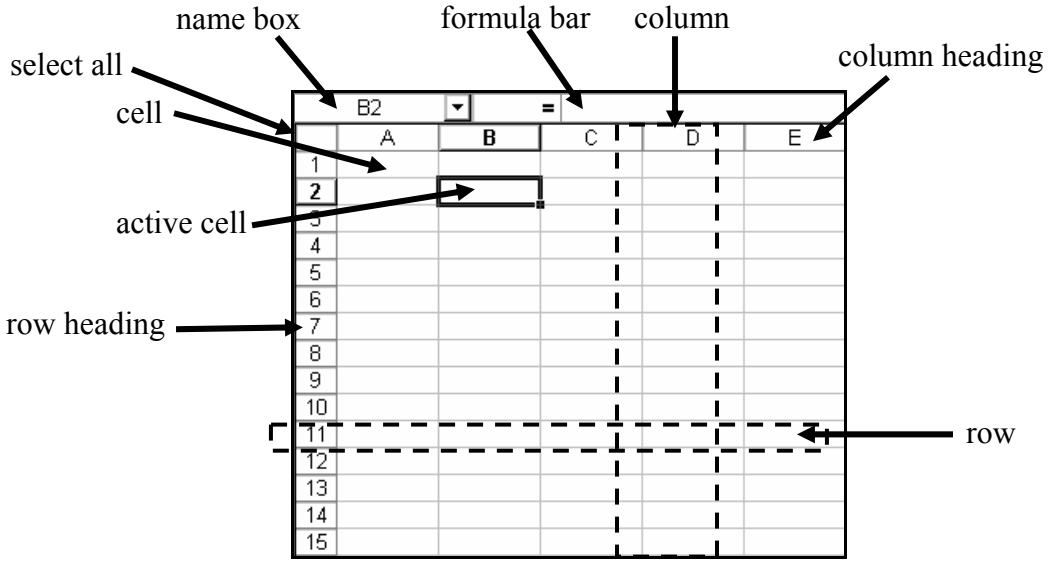
To print a presentation:

1. From the MICROSOFT OFFICE button choose PRINT
2. Choose the appropriate options in the Print dialog box and click OK.

Spreadsheet Basics

A **spreadsheet application** allows users to enter data, such as numbers and formulas, into an electronic worksheet and to use this data to perform multiple calculations. A document created by this type of program is called a **spreadsheet**.

The most popular spreadsheet applications are *Microsoft Excel 2007* and *Lotus 1-2-3*. Programs such as *AppleWorks* and *Microsoft Works* contain spreadsheet components. *The Cruncher*, by Knowledge Adventure, is a spreadsheet program for young children.



Related Terms:

absolute cell reference: a cell reference that does not change when a formula is copied or moved; contains a $ symbol before the column letter and row number

active cell: the cell currently selected in a spreadsheet, identified by its black border

cell: a rectangle in a spreadsheet, formed by the intersection of a row and a column, which can contain text, numbers or a formula

cell reference: the coordinates of the column and row position of a cell, or a cell address

column: a vertical line of cells in a spreadsheet, identified by a letter

column heading: a letter at the top of a column that can be clicked to select the entire column

column label: text at the top of a row that indicates the type of information in that column

Spreadsheet Basics [continued]

formula: a mathematical equation that performs a calculation in a cell; formulas follow a specific structure beginning with an equal sign (=) followed by the elements to be calculated (the operands) and the calculation operators

formula bar: the bar at the top of a spreadsheet that displays the information contained or being entered in a cell

function: a ready-to-use formula that performs common calculations, such as averages and sums

name box: the box in a spreadsheet that lists the column letter and row number of a selected cell or a range of selected cells

range: a single cell or a rectangular group of adjacent cells within a spreadsheet

row: a horizontal line of cells in a spreadsheet, identified by a number

row heading: a number at the far-left side of a row that can be clicked to select the entire row of cells

row label: text at the left side of a row that indicates the type of information in that row

worksheet: a spreadsheet containing cells in columns and rows

Important symbols used in spreadsheet formulas:

= **equal sign**: used at the beginning of each formula entered (e.g., =A2+B2-C2)

\+ **addition sign**: adds values (e.g., =A1+A2); also can be used at the beginning of a formula instead of an equal sign

\- **subtraction sign**: subtracts values (e.g., =B3-B4)

* **asterisk**: multiplies values (e.g., =C2*C6)

/ **slash**: divides values (e.g., =D1/D3)

: **colon**: used to indicate a consecutive range of cells in a row or column (e.g., =SUM(A2:A10), indicating the sum of the values in cells A2 through A10)

, **comma**: used to indicate a series of non-consecutive cells in a formula, (e.g., =SUM(B6,C12,D15), indicating the sum of the values in cells B6, C12 and D15)

( ) **parentheses**: used in functions to indicate a range of values or cell references to be calculated (e.g., =AVERAGE(F1:F6), indicating the average of the values in cells F1 through F6)

Spreadsheet Basics: Charting Terminology

chart: a visual representation of data

labels: words or numbers, often found along the X axis and Y axis, which identify information in a chart

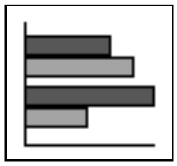
legend: the part of a chart in which the colors or patterns used in the chart are displayed with the items they represent

series: the basic unit of information in a chart, often contained in a single row or column.

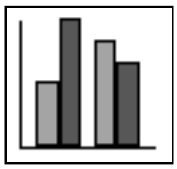
values: numeric entries within a spreadsheet

X series: the labels and data charted along the X axis, or horizontal axis

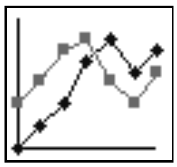
Y series: the labels and data charted along the Y axis, or vertical axis



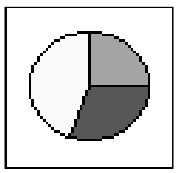
Bar chart: compares data or values horizontally without reference to trends over time



Column chart: compares data or values vertically without reference to trends over time



Line chart: shows trends or changes in values over time



Pie chart: shows the ratio of individual values to a total, or parts to a whole

Using Microsoft Excel 2007

To enter data into a cell:

1. Click the desired cell.
2. Use the keyboard to enter numbers or text; the entry will also appear in the Formula bar.
3. Press the ENTER key to accept the entered information and to advance to the cell below.

To edit the contents of a cell:

1. Double-click the cell.
2. Make the desired changes.
3. Press the ENTER key.

   Tip: To replace the entire contents of a cell, single-click the cell and enter the new data.

To increase the width of a column manually:

1. Place the pointer on the right side of the heading of the column to be increased.
2. When the pointer takes the shape of a double arrow, hold down the mouse button and drag to the right to widen the column.

   Tip: To make a series of columns the same width, select the appropriate columns, from the HOME TAB choose FORMAT, THEN WIDTH. Enter the desired width in the Column Width field and click OK.

To change the width of a column using the AutoFit feature:

1. Click the column heading to select the entire column.
2. From the HOME TAB choose FORMAT, then WIDTH. On the WIDTH drop-down menu choose AUTOFIT SELECTION.

To select a range of cells:

1. Click the first cell in the range and hold down the mouse button.
2. Drag to highlight the desired cells in the range, then release the mouse button.

To delete a row or column:

1. Click the appropriate row or column heading to select the entire row or column.
2. From the HOME TAB choose DELETE to delete the entire row or column.

   Tip: To delete a row or column's contents without actually removing the cells from the spreadsheet, press the DELETE key on the keyboard instead of DELETE on the HOME TAB.

Using Microsoft Excel 2007 [continued]

To insert a row:

1. Click a cell in the row below where the new row will be inserted.
2. From the HOME TAB choose the INSERT drop-down menu, and choose INSERT SHEET ROWS.

To insert a column:

1. Click a cell in the column to the right of where the new column will be inserted.
2. From the HOME TAB choose the INSERT drop-down menu, and choose INSERT SHEET COLUMNS.

To insert a new worksheet:

- From the HOME TAB choose the INSERT drop-down menu, and choose INSERT SHEET.

  Tip: To name the new worksheet, double-click the appropriate tab in the bottom-left corner of the screen and enter a new name.

To protect a worksheet:

1. From the HOME TAB choose the FORMAT drop-down menu then PROTECTION → PROTECT SHEET.
2. Enter a password (if desired) and select OK.

Formulas and Calculations

To enter a formula:

1. Enter the equal sign followed by the desired formula, then press the ENTER key.
2. Examples of basic formulas:
   - =45+67
   - =C4-C5 (the contents of C4 minus the contents of C5)
   - =D3*D6 (the contents of D3 multiplied by the contents of D6)
   - =A1/2 (the contents of A1 divided by 2)

To copy a formula from one cell into a series of cells:

1. Starting with the cell that already contains the formula; select the entire series of cells into which the formula will be placed.
2. In the HOME TAB, choose the FILL drop-down button 
3. You may fill DOWN, RIGHT, UP or LEFT.
4. Click one of the highlighted cells to confirm that the cell references in the formula were updated properly.

Using Microsoft Excel 2007: Formulas and Calculations [continued]

To sum a series of cells:

1. Click the appropriate cell.
2. Enter the sum formula into that cell.
3. Sample sum formula: =SUM(E4:E8). The contents of cells E4 through E8 will be added, and the sum will be displayed in the cell that was initially selected.

   or

1. Highlight the cells to be added.
2. Choose the AUTOSUM button Σ on the HOME TAB, and the calculated total will be placed in the cell immediately below or to the right of the selected range.

   or

1. Click the cell in which the calculated sum should be displayed and choose the AUTOSUM button Σ on the HOME TAB.
2. Accept the default cell range, or enter the corrected cell range in the formula bar.
3. Press the ENTER key to accept the formula.

To create a chart:

1. Select the cells to be included in the chart.
2. Choose the INSERT TAB then in the CHART GROUP choose a chart option.
3. From the DESIGN TAB you may edit the specific features of your chart.

To resize a chart:

1. Click the chart to select it.
2. Drag the handles to resize the chart.

To reposition a chart:

1. Click the chart to select it.
2. Drag the chart to reposition it on the worksheet.

To change the colors in a chart:

1. Click the chart. The DESIGN, LAYOUT and FORMAT TABS will appear in the Ribbon.
2. When you click on a specific area of the chart, this will be noted under the CURRENT SELECTION GROUP of the FORMAT TAB. You may now edit the colors of the chart by choosing SHAPE FILL.

Using Microsoft Excel 2007: Formulas and Calculations [continued]

To create an absolute cell reference:

1. When entering a formula, place a dollar sign ($) before both the column letter and the row number of the cell or cells to be designated as absolute references. A sample formula would be =SUM(A5:B6).

   Tip: In the above example, if the FILL or the COPY and PASTE commands are used to place the formula into additional cells, cell A5 will be referenced regardless of the new formula's column and row position. However, because the second cell in the formula is designated as a relative cell reference, it will change according to the location of the cell in which the formula is placed.

To insert a function:

1. Click the appropriate cell.
2. Choose the FUNCTION WIZARD  from the FORMULAS TAB.
3. Select the appropriate option from the Select a Function list and click OK.
4. Verify that the correct cell range is shown in the Number1 box and make any necessary changes.
5. Click OK.

Formatting

To bold text within a range of cells:

1. Select the cells.
2. Click the BOLD button  on the HOME TAB.

To underline text within a range of cells:

1. Select the cells.
2. Choose the UNDERLINE button  on the HOME TAB.

To italicize text within a range of cells:

1. Select the cells.
2. Click the ITALIC button  on the HOME TAB.

Using Microsoft Excel 2007: Formatting [continued]

To format a spreadsheet by applying Format as Table:

1. Select the cells to be formatted.
2. On the HOME TAB choose FORMAT AS TABLE. 
3. Select a table style.

To format numbers in cells as percentages:

1. Select the cells to be formatted.
2. On the HOME TAB choose the drop-down box in the NUMBER GROUP then choose PERCENTAGE
3. You can also select the Dialog Box Launcher  in the NUMBER GROUP to open the FORMAT CELLS box. On the NUMBER tab, select percentage from the Category list. If necessary, change the value in the Decimal Places box, then click OK.

   Tip: This procedure can also be followed to customize appearance of existing percentages.

   or

1. Select the cells to be formatted.
2. Click the PERCENT STYLE button  on the NUMBER GROUP of the HOME TAB.

To format numbers in cells as currency:

1. Select the cells to be formatted.
2. On the HOME TAB choose the drop-down box in the NUMBER GROUP then choose CURRENCY from the list.
3. You can also select the Dialog Box Launcher  in the NUMBER GROUP to open the FORMAT CELLS box. On the NUMBER tab, select CURRENCY from the Category list. If necessary, change the value in the Decimal Places box and select different options from the Symbol and Negative Numbers drop-down lists, then click OK.

   or

1. Select the cells to be formatted.
2. Choose the CURRENCY STYLE button  on NUMBER GROUP of the HOME TAB.

To format cell values with commas in the thousandth place:

1. Select the cells to be formatted.
2. Choose the COMMA STYLE button  on the NUMBER GROUP of the HOME TAB.

To display cell values with an additional decimal place:

1. Select the cells to be formatted.
2. Choose the INCREASE DECIMAL button  NUMBER GROUP of the HOME TAB.

Using Microsoft Excel 2007: Formatting [continued]

To display cell values with one fewer decimal place:

1. Select the cells to be formatted.
2. Click the DECREASE DECIMAL button  on the NUMBER GROUP of the HOME TAB.

To change the font of characters within a cell:

1. Select the cell(s) to be formatted.
2. Choose the desired font from the Font drop-down list on the FONT GROUP of the HOME TAB.

To fill a cell with color:

1. Select the cell(s) to be formatted.
2. Click the FILL COLOR drop-down arrow  on the FONT GROUP of the HOME TAB and choose a color from the pop-up menu.

To change the color of characters within a cell:

1. Select the cell(s) to be formatted.
2. Click the FONT COLOR drop-down arrow  on the FONT GROUP of the HOME TAB and choose a color from the pop-up menu.

To sort rows:

1. Select the cells to be included in the sort.
2. From the EDITING GROUP of the HOME TAB choose SORT & FILTER.
3. From the SORT & FILTER drop-down list, select CUSTOM SORT to specify the column by which the information should be sorted.
4. If you want to sort by column header, check MY DATA HAS HEADERS.
5. As appropriate, click either A TO Z (ASCENDING) or Z TO A (DESCENDING) from the ORDER drop-down list
6. If sorting according to another column, click ADD LEVEL then make the desired selections in the Then By group(s).
7. Click OK.

   or

1. Select the cells to be included in the sort.
2. Click the SORT A TO Z  button or the SORT Z TO A  button on the EDITING GROUP of the HOME TAB.

Using Microsoft Excel 2007: Formatting [continued]

To add headers or footers to a printed worksheet:

1. Choose FILE → PAGE SETUP.
2. Select the HEADER/FOOTER tab.
3. Choose the desired header text from the HEADER drop-down list or the desired footer text from the Footer drop-down list, then click OK.

   or

1. Click the CUSTOM HEADER or CUSTOM FOOTER buttons, enter the desired text in the appropriate column and choose OK.
2. Click OK again.

To insert a picture into the worksheet:

1. From the INSERT TAB choose the PICTURE logo. 
2. Locate and select the desired graphics file and select INSERT.

   or

1. From the INSERT TAB choose the CLIP ART logo. 
2. Enter a keyword or keywords in the Search For box, then press the ENTER key or choose GO.
3. Click on the desired clip art. It will be automatically inserted into the spreadsheet.

To change the page orientation:

1. On the PAGE LAYOUT TAB choose ORIENTATION.
2. From the drop-down menu select PORTRAIT or LANDSCAPE.

To modify print options:

1. On the PAGE LAYOUT TAB you can modify print settings from the PAGE SETUP GROUP.
2. You can also access all PAGE SETUP options by pressing  in the PAGE SETUP GROUP.
3. Select the SHEET TAB, then enter or choose the desired print options.
4. Click OK to return to the spreadsheet or select PRINT.

Database Basics

Data is information that can be processed and from which conclusions can be inferred. A **database** is a collection of related information. A **database application** is a computer program that allows users to enter, update, organize and retrieve information. Popular database applications today include *Microsoft Access 2007, FileMaker Pro*, *Lotus Approach* and *Microsoft Visual FoxPro*. There are also database components in *AppleWorks* and *Microsoft Works.* Database programs designed for children include *Tabletop Jr., Tabletop Sr.* and *ClarisWorks for Kids.*

Although most databases today are stored on computers, databases can also be stored in paper form, such as a Rolodex or index cards. A box of index cards containing recipes is an example of this type of database. A **field** is the location reserved for a category of information within a database. Fields in a recipe database could include recipe name, ingredients, preparation time, directions and serving size. A **record** is a complete unit of categorized information. In the recipe example, each recipe written on a single index card would be a record. **Form** is the term often used to describe the display of one record at a time. Many users prefer to use a form when entering information into a database.

A **table** is a way of displaying information in a database in which records appear in rows and fields appear in columns. The basic layout of a database table is similar to that of a spreadsheet.

Database Basics [continued]

Sorting is rearranging data so it appears in ascending or descending order, either alphabetically or numerically. To sort information in a database, a field must be specified. A database can also be sorted by multiple fields.

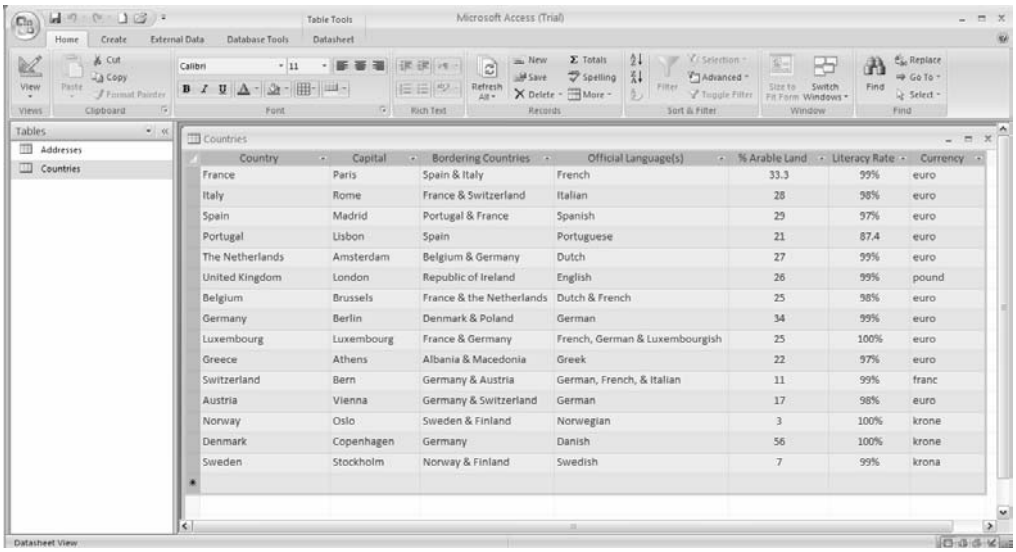
A **filter** is a set of criteria applied to records to show a subset of the records. Mathematical operations can be applied to build the criteria, including greater than (>), less than (<), greater than or equal to (>=), less than or equal to (<=) and not equal to (<>). *And, or* and *not* are **Boolean operators**, which are used to specify the logical relationship between values. All of these terms can be used to broaden or narrow a filter.

Specifying criteria with a **query** is a method that can be used to indicate what records should be retrieved. Queries are more flexible and more advanced than filters, although both queries and filters can perform the same basic functions. If desired, queries can also be saved so the search results can be accessed in the future.

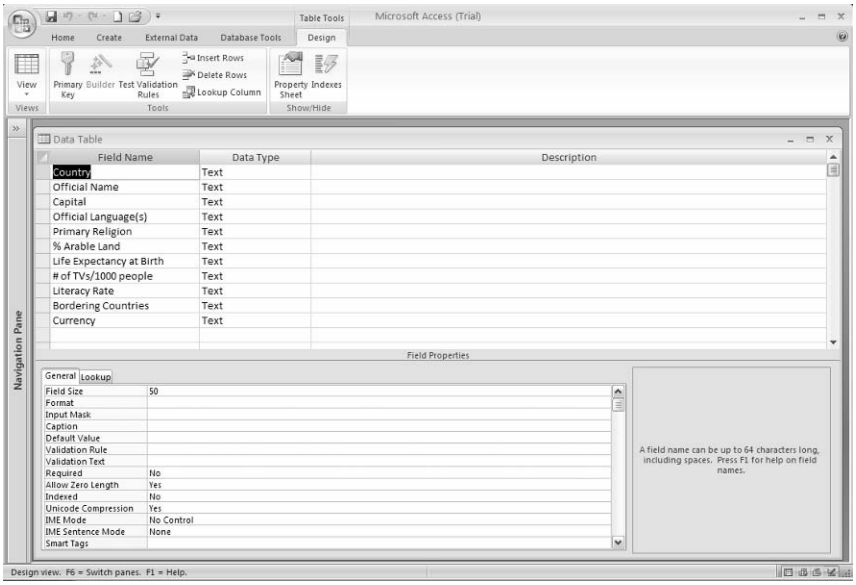
Mail merge allows information in a database to be inserted into a word processing document to create individualized letters, envelopes and labels. The most common way that mail merge is used is to personalize form letters.

A **report** is a way of printing the information in a database. There is considerable flexibility in the generation of reports. All aspects of the layout, as well as which fields and records are included, can be specified.

Using Microsoft Access 2007

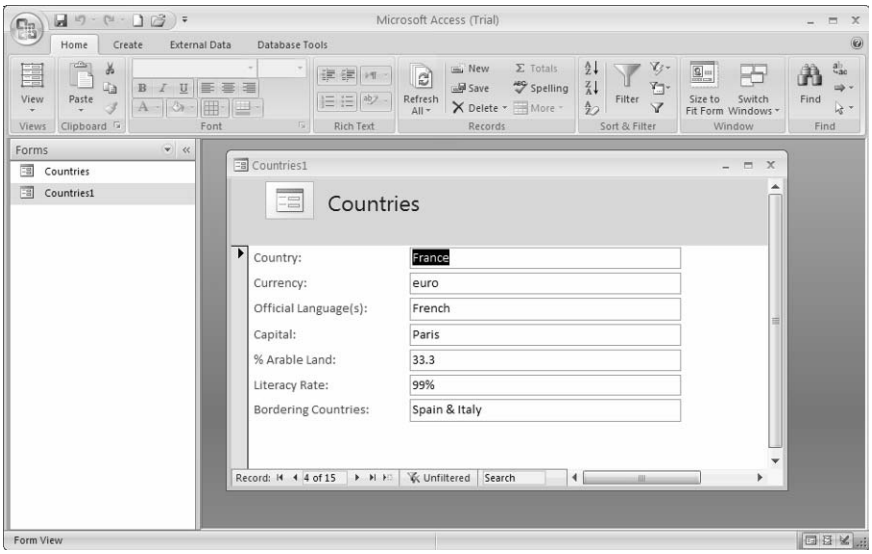


A table in Datasheet View can be used to add, edit or view the data in a table. Also in this view, it is possible to print the table, to sort or filter the records, to modify the appearance of the data and to insert or delete columns (fields) and rows (records).

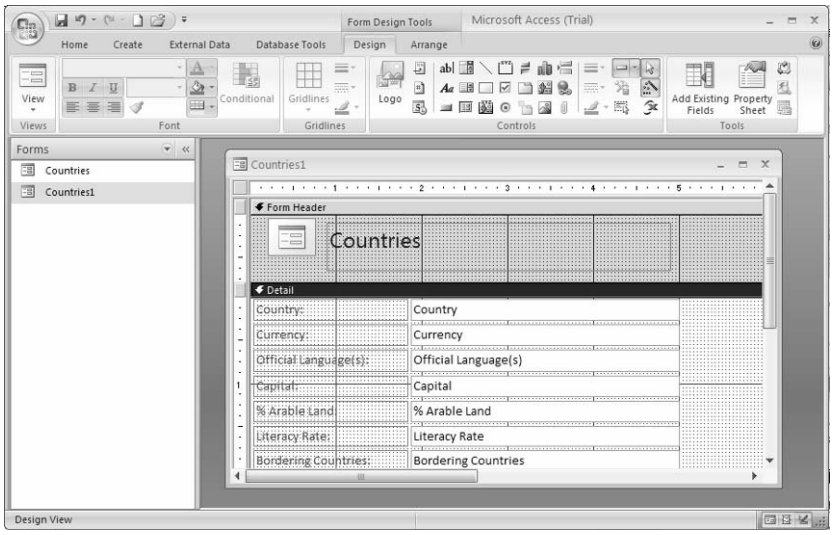


In Design View, an existing table's fields can be added, deleted or customized. Also, a new table can be created from scratch.

Using Microsoft Access 2007 [continued]

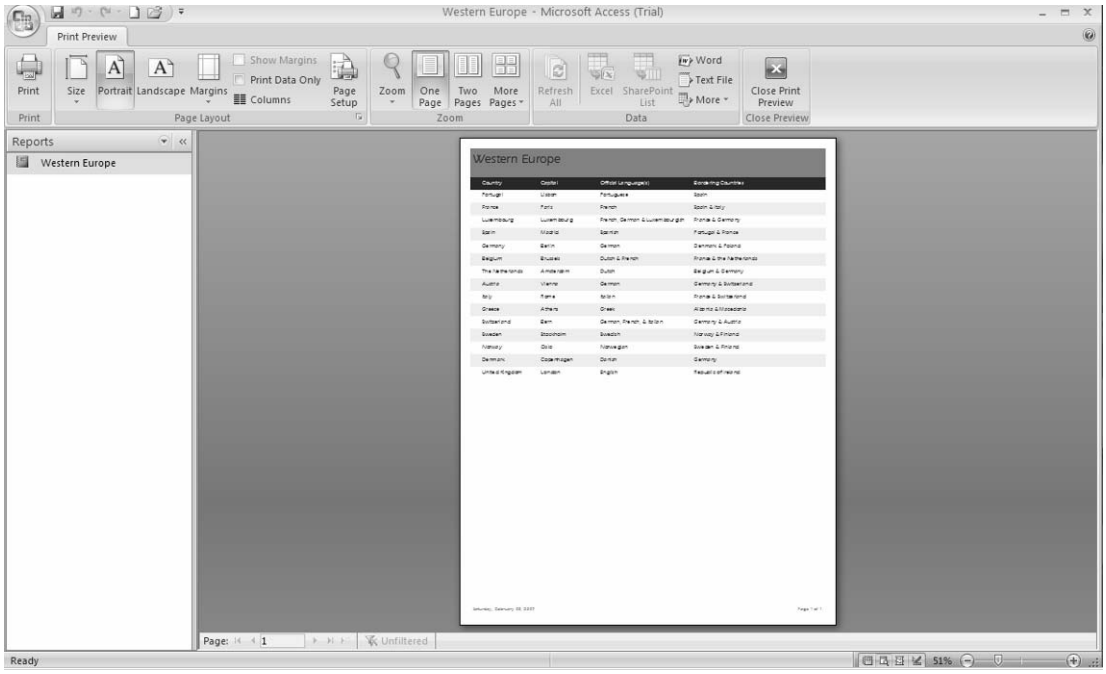


A form in Form View displays one record at a time, and this view is often used to enter and edit information within a database. In Form View it is also possible to sort and filter records.

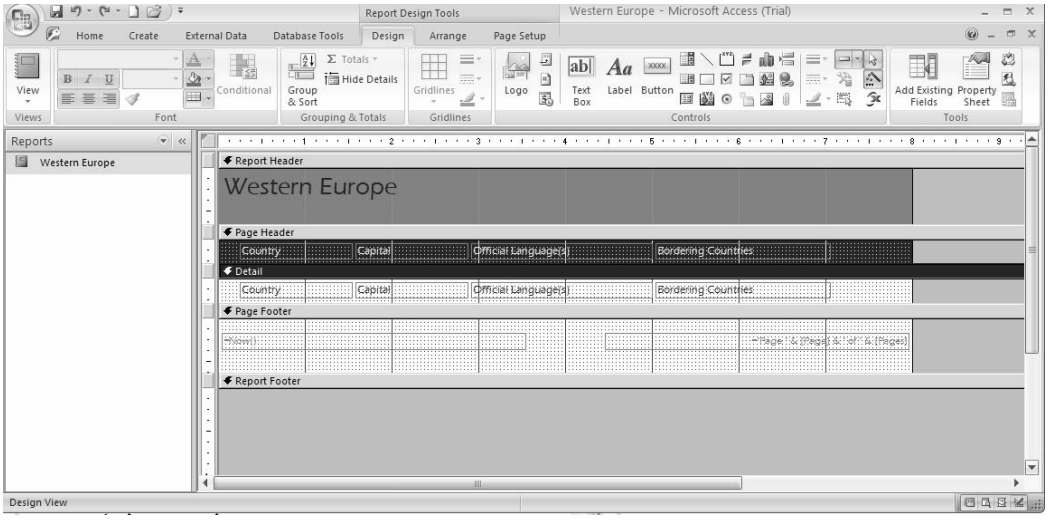


The appearance of a form can be modified in Design View. The label text can be edited and formatted. Fields can be added, moved and resized. Text color, background colors and graphics can be added, and header and footer text can be inserted.

Using Microsoft Access 2007 [continued]



A report in Print Preview is displayed the way that the report will be printed. A report is an effective way to present data in a printed format.



The appearance of a report can be modified in Design View. Label text, header and footer text, graphics and colors within a report can be altered in this view, with formatting options similar to those available for a form in Design View.

Using Microsoft Access 2007: Basic Database Management, Editing and Formatting

To create a new database:

1. From the MICROSOFT OFFICE button choose NEW.
2. In the NEW BLANK DATABASE Task Pane, select BLANK DATABASE.
3. Enter a name in the File Name box on the right hand side of the screen. Click on the file folder button to navigate to the location where the database should be saved, click OK and then choose CREATE.

To rename a table or a form within a database:

1. In the Database window, select the appropriate icon and right-click the name of the file to be changed.
2. Select RENAME and enter the new name.
3. Press the ENTER key on the keyboard.

To copy text:

1. Highlight the text to be copied.
2. Select the COPY button on the HOME TAB.

To cut text:

1. Highlight the text to be cut.
2. Select the CUT button on the HOME TAB.

To paste text that has been cut or copied:

1. Position the cursor where the text will be inserted.
2. Select the PASTE button on the HOME TAB.

   Tip: The most recently copied or cut text will be pasted.

Using Microsoft Access 2007: Creating Tables

To create a table:

1. In the Datasheet view, click the TABLE button  on the CREATE TAB.
2. To enter the first field name, double-click the field name *Add New Field*.
3. Enter the name for the first field then press the ENTER key to add another field.
4. Repeat until all the necessary fields have been added.

or

1. In the Design View, click the TABLE DESIGN button  on the CREATE TAB.
2. Enter the appropriate field names and click the SAVE button. 
3. Enter the table name and click OK.

To switch between Design View and Datasheet View of a table:

- Select the VIEW button  on the HOME TAB.

  Tip: The VIEW button toggles between the DESIGN icon  and the DATASHEET icon  depending upon the current view.

To choose a primary key in a table:

1. In Design View, position the cursor in the row to be designated the primary key.
2. Click the PRIMARY KEY button  on the DESIGN TAB in the TOOLS GROUP.

   Tip: Each entry in the primary key field must be unique.

To change a field's data type in a table:

1. In Design View, position the cursor in the data type field to be changed.
2. Select the desired data type from the DATA TYPE drop-down menu on the DATASHEET TAB.

To change a field size in a table:

1. In Datasheet View, position the pointer on the field name's right or left border.
2. When the pointer takes the shape of a double-arrow, drag to widen the field.

To select an entire field (column) in a table:

- Click the field name at the top of the column.

Using Microsoft Access 2007: Creating Tables [continued]

To add a row (record) to a table:

- In Datasheet View, select the NEW button in the RECORDS GROUP on the HOME TAB.

  Tip: The new record will be inserted at the bottom of the table.

To add a field to a table:

1. In Datasheet View, position the cursor in the column to the right of where the new column will be inserted.
2. Select the INSERT COLUMN button on the DATASHEET TAB.

   or

1. In Design View, position the cursor in the row above where the new row will be inserted.
2. Select the INSERT ROWS button on the DESIGN TAB.

To delete a row (record) from a table:

1. In Datasheet View, position the cursor within the record to be deleted.
2. On the HOME TAB, click the drop-down arrow next to the DELETE button and select DELETE RECORD.
3. Click YES to confirm the deletion.

   or

1. Select the record to be deleted by clicking in the box to the left of the first field.
2. Click the DELETE button on the HOME TAB.
3. Click YES to confirm the deletion.

   Tip: Once a record has been deleted, it cannot be retrieved.

To delete a column (field) from a table:

1. In Datasheet View, select the column to be deleted by clicking on the field name at the top of the column.
2. Click the DELETE button on the HOME TAB.
3. Click YES to confirm the deletion of the field.

   or

1. In Design View, position the cursor in the row to be deleted.
2. Choose the DELETE ROWS button on the DESIGN TAB.
3. Click YES to confirm the deletion of the field.

Using Microsoft Access 2007: Creating Tables [continued]

To change the gridline layout in a table:

- In Datasheet View, click the GRIDLINES button on the HOME TAB and make the desired selection.

To change the gridline color in a table:

1. In Datasheet View, click the Dialog Box Launcher button on the HOME TAB in the bottom right-hand corner of the FONT GROUP to open the DATASHEET FORMATTING box.
2. In the Datasheet Formatting dialog box, make the desired selection from the GRIDLINE COLOR drop-down list and click OK.

Creating Forms

To create a form:

1. On the CREATE TAB in the Database window, click the MORE FORMS drop-down arrow and select FORM WIZARD.
2. Make the appropriate selections to create the form.

To add a record to a form:

1. In Form View, click the NEW button on the HOME TAB.
   or
2. In Form View, choose the NEW (BLANK) RECORD button in the bottom-left corner of the window.

To delete a record from a form:

1. In Form View, display the record to be deleted.
2. On the HOME TAB, click the drop-down arrow next to the DELETE button and select DELETE RECORD.
3. Click YES to confirm the deletion.

   Tip: Once a record has been deleted, it cannot be retrieved.

To advance one record in Form View:

- Select the NEXT RECORD button in the bottom-left corner of the window.

  Tip: To advance to the final record, select the LAST RECORD button.

Using Microsoft Access 2007: Creating Forms [continued]

To view the preceding record in Form View:

- Select the PREVIOUS RECORD button in the bottom-left corner of the window.

  Tip: To advance to the first record, select the FIRST RECORD button.

Sorts, Filters, Queries and Reports

To edit an existing table, query, form or report:

1. In the Navigation Pane of the Database window, select the appropriate icon for the file to be edited.
2. Right-click the file to be edited and choose OPEN or DESIGN VIEW.

To sort a table or form by one field:

1. In Datasheet View or Form View, position the cursor in the field to be sorted.
2. Select either the ASCENDING button or the DESCENDING button in the SORT & FILTER GROUP on the HOME TAB.

To sort a table or form by more than one field:

1. In Datasheet View or Form View, click the ADVANCED FILTER OPTIONS button on the HOME TAB.
2. Select ADVANCED FILTER/SORT from the menu.
3. Position the cursor in the Field box in the grid's first column.
4. From the drop-down list that appears, select the field to be sorted.
5. Position the cursor in the corresponding Sort box.
6. Select ASCENDING or DESCENDING from the drop-down list.
7. In the neighboring columns in the grid, choose additional fields to sort.
8. After all of the fields have been set, click the ADVANCED FILTER OPTIONS button and select APPLY FILTER/SORT.

   Tip: The field farthest to the left in the design grid will be sorted first.

To remove a sort or a filter from a table or form:

- In Datasheet View or Form View, click the REMOVE ALL SORTS button on the HOME TAB.

Using Microsoft Access 2007: Sorts, Filters, Queries and Reports [continued]

To perform a filter in a table or form:

1. In Datasheet View or Form View, click the ADVANCED FILTER OPTIONS button. 
2. Select ADVANCED FILTER/SORT from the menu.
3. Position the cursor in the Field box in the grid's first column.
4. From the drop-down list that appears, select the field to be filtered.
5. Position the cursor in the corresponding Sort box.
6. Select ASCENDING, DESCENDING or NOT SORTED from the drop-down list.
7. Position the cursor in the corresponding Criteria box.
8. Enter the desired value or expression.
9. Click the ADVANCED FILTER OPTIONS button and select APPLY FILTER/SORT.

   Tip: To perform additional sorts or filters on the filtered data, click on the small filter graphic in the field which has been filtered. A pop-up menu will appear.

To create a query:

1. In Datasheet View, on the CREATE TAB click the QUERY DESIGN button. 
2. In the Show Table window, choose the table to be used in the query on the TABLES TAB and click ADD. Close the Show Table window.
3. Position the cursor in the Field box in the grid's first column.
4. From the drop-down list, select the field to be included in the query.
5. Make the desired selection from the Sort drop-down list and enter the desired value in the Criteria box.
6. In neighboring columns in the grid, add other fields to be included in the query and enter the desired sorting and criteria information.
7. Select the RUN button from the DESIGN TAB.

To save a query:

1. Click the SAVE button  on the QUICK ACCESS TOOLBAR on the top left.
2. Enter a query name and select OK.

To create a report:

1. Click the REPORT WIZARD button  on the CREATE TAB.
2. Follow the instructions in the Report wizard and select FINISH when completed.

Using Microsoft Access 2007 [continued]

To start a mail merge document:

1. Launch *Microsoft Word 2007*.
2. On the MAILINGS TAB, click START MAIL MERGE and select STEP BY STEP MAIL MERGE WIZARD from the drop-down menu.
3. Choose a document type from the Mail Merge pane. For example, select the DIRECTORY document type to create a continuous document of entries, such as a bibliography.
4. At the bottom of the Mail Merge pane, click NEXT: STARTING DOCUMENT to continue to the next step.
5. Select the starting document and click NEXT: SELECT RECIPIENTS.

To link the mail merge document to an *Access* database:

1. Choose the USE AN EXISTING LIST radio button then click the BROWSE button to locate the data source for the recipients.
2. In the FILES OF TYPE list, choose ALL DATA SOURCES then locate the desired database file.
3. Select the table or query containing the desired data and click OK.
4. Review the list of recipients to include and click OK.
5. Click NEXT: WRITE YOUR LETTER.

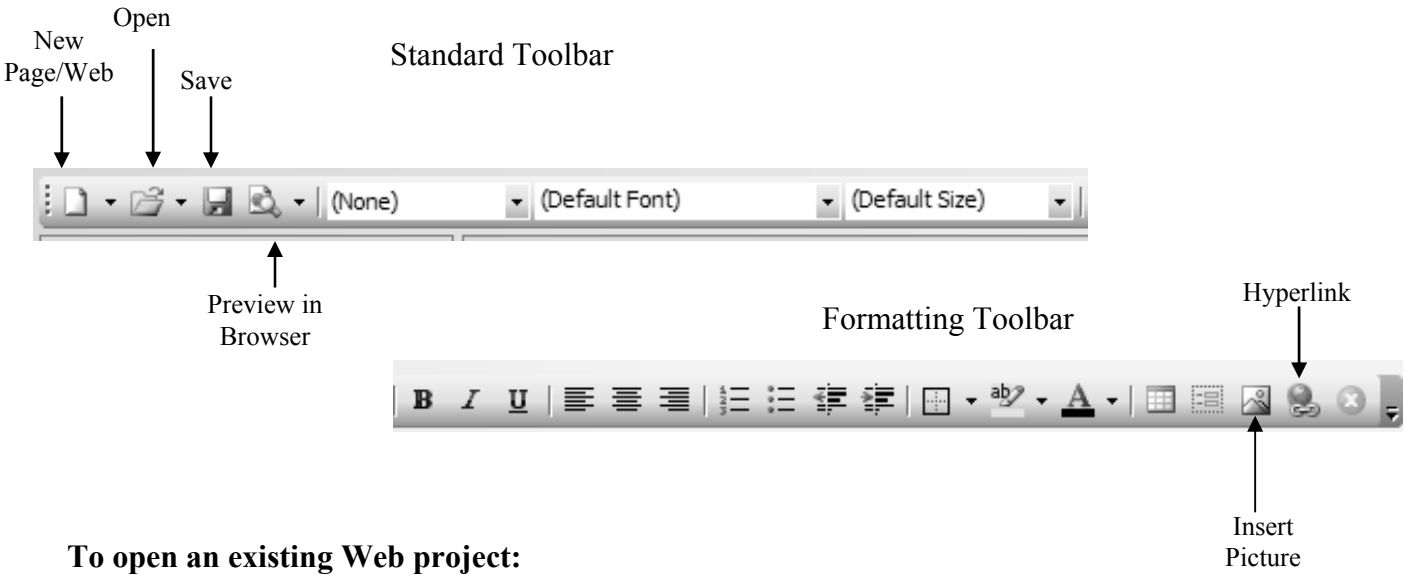
To add merge fields to the mail merge document:

1. Position the cursor where the first field will be placed on the page.
2. Select the desired item to merge from the Mail Merge pane.
3. Verify that the example is correct. If it is correct, click OK to close the window. If it is incorrect, click the MATCH FIELDS button to fix any errors.
4. Continue this process for all desired merge fields.

To merge the mail merge document with the data source:

1. Click the NEXT: PREVIEW YOUR LETTERS button. At the top of the Mail Merge pane, use the double arrows to preview all of the documents.
2. Click the NEXT: COMPLETE THE MERGE button. Individual documents may now be edited if desired. The merged documents can also be printed now.

Using Microsoft SharePoint Designer 2007



To open an existing Web project:

1. Select FILE → OPEN.
2. Locate the Web (.html, .htm, .asp) file containing the first page of the Web project and click OPEN.

To create a new Web page:

1. Choose FILE → NEW → PAGE.
2. In the New dialog box, choose GENERAL for a standard HTML page, or choose one of the CSS Layouts or Frames Pages for specific needs.
3. Click OK.

Tip: ASP.Net options are for advanced programmers.

To save a Web project:

1. Choose FILE → SAVE.
2. Locate the folder in which you wish to save the Web project and click SAVE.
3. When the Save Embedded Files dialog box appears, verify that all component files are saved in the Web project folder and click OK.

Tip: A Web project is composed of one or more linked HTML files, each representing one page of the project, along with files containing any components embedded in the HTML pages, such as pictures or music. The collection of files that make up a Web project is typically organized in one folder for convenience.

Using Microsoft SharePoint Designer 2007: Inserting Objects

To insert a hyperlink to a file:

1. Highlight the image or text that will serve as the starting point for the hyperlink.
2. Choose INSERT → HYPERLINK.
3. In the Insert Hyperlink dialog box, click the BROWSE THE WEB button  or the BROWSE FOR FILE button  to locate the destination file, or ending point, for the hyperlink and click OK.

To insert a hyperlink to a location within a page:

1. Mark the destination, or ending point, for the hyperlink by highlighting an image or text and selecting INSERT → BOOKMARK.
2. Enter a name for the bookmark and click OK.
3. Create the hyperlink by selecting the starting image or text for the hyperlink and choosing INSERT → HYPERLINK.
4. Delete any text in the Address box.
5. Click BOOKMARK. Select the bookmark name from the Select Place in Document dialog box and click OK twice.

To insert a picture:

1. Choose INSERT → PICTURE → CLIP ART.
2. Locate and click the desired clipart picture and select INSERT from the popup menu.

or

1. Choose INSERT → PICTURE → FROM FILE.
2. In the Picture dialog box, locate the desired picture file and click INSERT.

Using Microsoft SharePoint Designer 2007: Inserting Objects [continued]

To insert sound or music:

1. Choose FILE → PROPERTIES.
2. On the GENERAL TAB, select the BROWSE button in the Background Sound group.
3. Locate the desired music or sound clip and click OPEN.
4. Make sure that the FOREVER checkbox is selected or choose a number in the Loop spin box, then click OK.

To insert a button:

1. Choose INSERT → INTERACTIVE BUTTON.
2. In the Interactive Buttons dialog box, choose a button from the Buttons list.
3. Enter the text that should appear on the button in the Text box.
4. Select the BROWSE button to locate a destination for the button's hyperlink.
5. Choose a font and text size on the FONT TAB.
6. Select the colors and size of the button on the IMAGE TAB and click OK.

To insert a horizontal line:

1. Choose TASK PANES → TOOLBOX. The TOOLBOX will appear to the right of the main .htm pane.
2. Double-click on HORIZONTAL LINE.

To insert scrolling text:

1. Choose INSERT → WEB COMPONENT. Make sure DYNAMIC EFFECTS is selected under Component Type and select MARQUEE under Choose an Effect. Click FINISH.
2. Enter the text in the Text box.
3. Select LEFT or RIGHT for the direction and click OK.

Using Microsoft SharePoint Designer 2007: Inserting Objects [continued]

To insert a background picture:

1. Select FORMAT → BACKGROUND.
2. On the FORMATTING TAB, select the BACKGROUND PICTURE checkbox.
3. Click the BROWSE button.
4. Locate the desired picture and click OPEN.
5. Click OK to close the Page Properties window.

Designing a Page or Web Project

To choose a background color:

1. Select FORMAT → BACKGROUND.
2. On the FORMATTING TAB, click the BACKGROUND drop-down arrow, choose a color and click OK.

To preview a Web page as it would appear in a Web browser:

- Choose FILE → PREVIEW IN BROWSER and select the appropriate browser from the list.

or

- Click the arrow next to the PREVIEW IN BROWSER button  on the Standard Toolbar and select the appropriate browser from the list.

Miscellaneous Topics: Creating a Screen Shot

A **screen shot** is a graphic image of what appears on the computer screen. Screen shots can be helpful in acquiring an image of something on the screen for incorporation into another document. Remember that the screen shot will include everything that appears on your monitor.

Follow the steps below to create, insert and size a screen shot.

1. Choose an image that you want to insert into another document. You may want to choose a graphic, a picture file, or the desktop itself.
2. Press the PRINT SCREEN key on the upper right side on the keyboard to copy the image on the screen to the Clipboard. **Note**: The screen shot shows everything that appears on the computer screen. If you only want one small part or area of the screen shot, launch Paint by selecting START → PROGRAMS → ACCESSORIES → PAINT. Select EDIT → PASTE. Choose the SELECT tool or the FREE-FROM SELECT tool and select only the area that you want. Select EDIT → COPY or EDIT → CUT and close Paint.
3. Open the application into which you want to insert the screen shot, for example *Word 2007*.
4. From the MICROSOFT OFFICE button  in the top left corner choose NEW.
5. From the HOME TAB click on the PASTE button.
6. Your screen shot will have the Windows frame around it. To eliminate the frame and insure that you have exactly the image desired, click on the image.
7. Go to the PICTURE TOOLS/FORMAT TAB.
8. Click on the CROP tool  from the SIZE GROUP.
9. Position the CROP tool on the handles of the screen shot and crop unneeded portions of the image.
10. If you desire to change the size of the image, adjust the vertical and horizontal measurements on the SIZE GROUP on the FORMAT TAB. An alternative method to re-size the image is to click on the image, position the cursor at any corner and drag the image to the desired size.

Miscellaneous Topics: Troubleshooting Tips

Common problems and solutions:

Problem: After the computer starts up, a blank screen appears.

Potential Solutions:

Be certain that the monitor is turned on. Check for the lights on the surge protector (if applicable), the system unit and the monitor indicating that electricity is traveling through that component. Check the cable connections to and from each component, in case they have become loose.

If these measures do not solve the problem, insert a boot disk and restart the machine. An emergency boot disk is packaged with diagnostic programs such as *Norton Utilities*. A boot disk can also be created in *Microsoft Windows* by selecting the ADD/REMOVE PROGRAMS icon from the Control Panel, choosing the STARTUP DISK tab and following the directions. If the computer does not start using a boot disk, the problem may be with the hardware. The appropriate hardware vendor should be contacted for service instructions.

Problem: When attempting to print, nothing happens.

Potential Solutions:

Verify that the printer is turned on and check the cable connections. Look at the lights on the printer to see whether an error is indicated. If so, check the printer manual for interpretations and solutions: the printer could be out of paper or have a paper jam. Check the printer status by choosing START → SETTINGS → PRINTERS, then double-clicking the printer in question. Try printing another document or printing from another program (such as WordPad) to see whether the problem is with the particular file or application.

Problem: The computer is frozen.

Potential Solutions:

If possible, select the CANCEL or CLOSE button. If the computer is still not responding, press the CONTROL, ALT and DELETE keys simultaneously. From the Close Program dialog box, select the application that is not responding and click END TASK. If the computer is still frozen, the CONTROL, ALT and DELETE key combination can be used to restart the computer. The reset button on the computer system unit may need to be used to restart the computer. If the reset button does not work, turn the computer off, wait 15 seconds or so and turn it back on. Windows should detect that the computer was not shut down properly and will execute the Scandisk program to check the hard drive for errors. If the computer freezes each time the same particular action is performed, it may help to reduce the number of files or applications open at one time.

Miscellaneous Topics: Troubleshooting Tips [continued]

Problem: A "not enough memory" error message appears.

Potential Solutions:

Try restarting the computer and launching the program again. If the message still appears, disable the programs that automatically start up. To do so, select START → SETTINGS → TASKBAR & START MENU. Choose the START MENU PROGRAMS tab, then the ADVANCED button and select the PROGRAMS folder. Move the shortcuts from the Startup folder into another folder, and restart the computer. If the error message continues to appear, try removing unnecessary files (such as unnecessary or backed-up documents) from the hard drive to free space that *Windows* can use for memory management.

Problem: A "not enough disk space" message appears when installing a program or when copying files to the hard drive.

Potential Solutions:

Right-click the RECYCLE BIN icon on the desktop, and choose EMPTY RECYCLE BIN . Check the amount of free hard drive space by right-clicking the HARD DRIVE icon in Windows Explorer and selecting PROPERTIES. Choose the TOOLS tab and select CHECK NOW to check the hard drive for errors that may be taking up space. To free some hard drive space, back up files to floppy disks or delete files that are no longer needed.

To help prevent this type of problem, consider compressing the hard drive before it becomes too full. To do so, select START → PROGRAMS → ACCESSORIES → SYSTEM TOOLS → DRIVESPACE.

Problem: No sound is heard from the speakers.

Potential Solutions:

Verify that the speakers are turned on and check the volume knob and the cable connections. Be certain that the speakers are connected to the correct jack (often labeled *Out* or *Speaker Out*). From the Control Panel, double-click the SOUNDS icon and determine if sound is heard when the name of a sound is highlighted and the PLAY button selected. From the Control Panel, double-click the MULTIMEDIA icon, select the AUDIO tab and adjust the Playback volume control.

Miscellaneous Topics: Troubleshooting Tips [continued]

Problem: A software program does not run properly.

Potential Solutions:

First, create backups of any document files created by the program. Double-click the ADD/REMOVE PROGRAMS icon in the Control Panel window, choose CHANGE/REMOVE and follow the instructions to uninstall the program. If problems still persist, right-click the HARD DRIVE icon in Windows Explorer and select PROPERTIES. Verify that there is adequate hard drive space available. Choose the TOOLS tab, then select CHECK NOW and DEFRAGMENT NOW. Reinstall the program.

Problem: An error occurs when copying a file or when installing software.

Potential Solutions:

The actual file being copied could be damaged. Try copying the file or installing the program on other computers. If the same error message occurs during the same process on a few different machines, the floppy disk or CD-ROM could be defective or could contain a corrupt file. The appropriate software manufacturer must be contacted to receive replacement disks.

Problem: The colors on the screen appear unnatural.

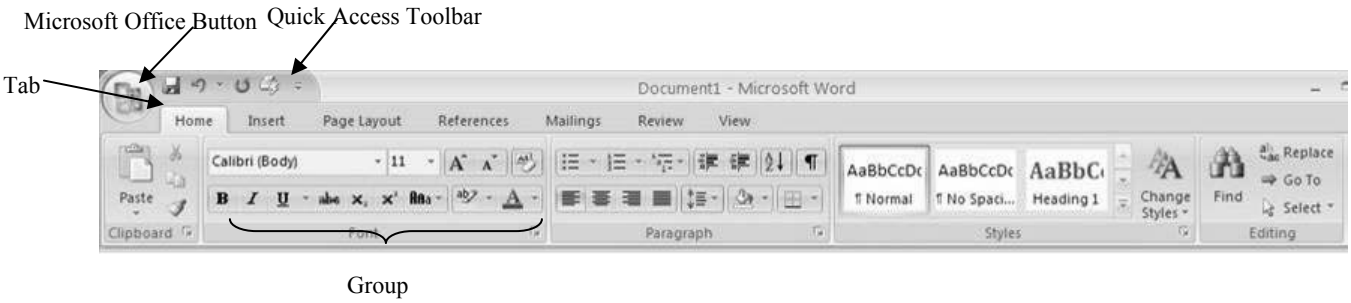
Potential Solutions:

The monitor display settings may need to be changed. Double-click the DISPLAY icon in the Control Panel window and click the SETTINGS tab. Choose a different option in the COLOR QUALITY drop-down list. Also, from the SETTINGS tab, select ADVANCED and click the MONITOR tab to verify that the correct monitor is chosen. If not, select CHANGE and choose another monitor.

Office 2007 Tips and Tricks

The Ribbon

The menus and toolbars in some programs have been replaced with the Ribbon, a panel that runs along the top of each application window.



The Ribbon is divided into a series of *tabs*. In Word, for example, you will see tabs for Home (the default tab view), Insert, Page Layout, References, Mailings, Review, and View. There are also tabs that only appear when needed. So, for example, if you insert a table in Word, you'll get a new Table tab, or if you insert a picture, you will see a Picture tab.

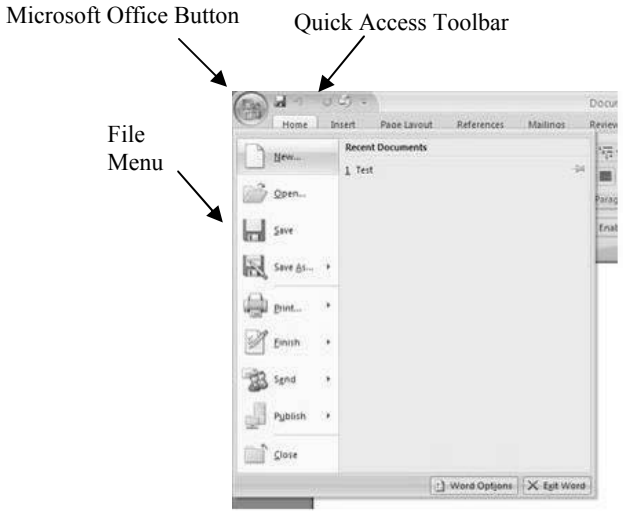
Commands are organized in logical *groups*, which are collected together under the tabs. The groups on each tab are organized to help you complete a task.

The Ribbon can be found in Office Access 2007, Office Excel 2007, Office PowerPoint 2007, Office Word 2007 and Office Outlook 2007.

Office 2007 Tips and Tricks [continued]

Microsoft Office Button

The Microsoft Office Button replaces the file menu. When you click the Microsoft Office Button, you see the same basic commands available in earlier releases of Microsoft Office to open, save, and print your file.



Quick Access Toolbar

Tools or commands that are not as readily available as you would like can be easily accessed by adding them to the quick access toolbar. To add a button right click on a feature in a tab, then click ADD TO QUICK ACCESS TOOLBAR. You may remove a button the same way, by right clicking and choosing REMOVE FROM QUICK ACCESS TOOLBAR.

Saving a File

Office 2007 saves files in a slightly different format, as compared to previous Office versions. To ensure you can access your 2007 files in other versions of Office, you must click on SAVE AS from the File menu. Choose *[Office Program] 97-2003 [File Type]* from the SAVE A COPY OF THE [FILE TYPE] list. Name the file and click SAVE.

For example from Word, you would choose *Word 97-2003 Document* from the SAVE A COPY OF THE DOCUMENT list.

Glossary

absolute cell reference: a cell reference that does not change when a formula is copied or moved; contains a $ symbol before the column letter and row number

active cell: the cell currently selected in a spreadsheet, identified by its black border

animation: a series of still images displayed in rapid succession to create the illusion of movement

background: the layer in which text and images that appear in the same location on every page of a document are placed

Boolean operators: words used to specify a logical relationship *And, or* and *and not* are Boolean operators

bullets: symbols (often a solid circle or square) used to distinguish items in a list

branching slide: a slide that is linked to another slide in a presentation, providing users with a choice of which slide to view next

cell: a rectangle in a spreadsheet, formed by the intersection of a row and a column, which can contain text, numbers or a formula

cell reference: the coordinates of the column and row position of a cell, or a cell address

clip art: previously created digital artwork that is intended to be integrated into documents

column: a vertical line of cells in a spreadsheet, identified by a letter

column heading: a letter at the top of a column that can be clicked to select the entire column

column label: text at the top of a row that indicates the type of information in that column

data: information that can be processed and from which conclusions can be inferred

Glossary [continued]

database: a collection of related information

database application: a computer software program that allows users to enter, update, organize and retrieve information

digitalization: the process of transferring a film or video image to a format that a computer can use

field: the location reserved for a category of information within a database

filter: a set of criteria applied to records to show a subset of the records

footer: the text or graphics that appear at the bottom of a page

foreground: the layer in which the text and images that vary from page to page in a document are placed

formula: a mathematical equation that performs a calculation in a cell; formulas follow a specific structure beginning with an equal sign (=) followed by the elements to be calculated (the operands) and the calculation operators

formula bar: the bar at the top of a spreadsheet that displays the information contained or being entered in a cell

frames: a term related to the viewing and layout style of a Web site in which two or more Web pages are loaded at the same time within the same screen; Web pages with frames contain scroll bars for each embedded page that can be viewed independently

Function: a ready-to-use formula that performs common calculations, such as averages and sums

Greek text: a block of nonsensical text that represents the size and position of text so the aesthetics of the page design can be evaluated

grouping: joining together separate objects so the components can be manipulated as one object

hot spot: an area on the screen that can be selected to trigger an action, such as playing a sound, animating a graphic or displaying a different slide

Glossary [continued]

HyperText Markup Language (HTML): the special code that allows the Web browser to display the layout of a document

HyperText Transfer Protocol (HTTP): the Internet standard that enables access to documents on the World Wide Web
Importing: the process of inserting text or graphics that originated in one program into another program

landscape: the page orientation in which the page is wider than it is tall

layers: invisible sheets on which users can place text or graphics so the objects are independent of other objects on other sheets

layout: the process of arranging text and graphics on a page

layout guides: nonprinting lines that can be helpful when placing text and graphics within a document

linking: connecting text frames so that the excess text from the first frame flows into the second frame

mail merge: merging database information and word processing to create individualized letters, envelopes and labels

medium: a single method used to communicate a message to an audience, including video, sound, text and graphics

name box: the box in a spreadsheet that lists the column letter and row number of a selected cell or a range of selected cells

picture frame: a movable and resizable placeholder for a graphic

points: a font measure. One inch is equal to 72 points, and one centimeter is equal to 28 points. Font sizes of 10 point or 12 point are common for text in the body of documents.

Portrait: the page orientation in which the page is taller than it is wide

Glossary [continued]

pull quote: a short phrase set in a larger type size that repeats information found within the article

query: a method used to specify criteria to indicate what records should be retrieved from a database

range: a single cell or a rectangular group of adjacent cells within a spreadsheet

Record: a complete unit of fields (categorized information)

row: a horizontal line of cells in a spreadsheet, identified by a number

row heading: a number at the far-left side of a row that can be clicked to select the entire row of cells

row label:text at the left side of a row that indicates the type of information in that row

rulers:on-screen bars that measure the page horizontally and vertically

scratch area:the nonprinting work area in which text and graphics can be placed before they are moved into a document

slide: a screen in a *PowerPoint* presentation resembling an index card, on which users may arrange media elements

slide master: a special slide that can be used to determine the layout and formatting of all slides in a presentation

slide show: in presentation programs, several screens of information organized in a particular sequence

smart tags: a set of buttons shared across Office 2007 applications, smart tags appear as needed to provide options for completing a task quickly

sorting: rearranging data so that it appears in ascending or descending order, either alphabetically or numerically

spreadsheet: a document created by a spreadsheet application

spreadsheet application: allows users to enter data, such as numbers and formulas, into an electronic worksheet and to use this data to perform multiple calculations

Glossary [continued]

storyboard: a series of panels on which a set of sketches is arranged for planning purposes

table: Information displayed in rows and columns

task panes: located on the right side of the screen, allows users to access important tasks such as performing searches, opening documents, viewing the Clipboard, formatting documents and more

text alignment: (also known as justification) refers to how text appears in relation to the left and right margins

text frame: a placeholder for text, which can be moved or resized

text wrapping: the way that text flows around a graphic

transition: the special effect that occurs when one slide advances to the next in a presentation

Uniform Resource Locator (URL): A Web page's address, often beginning with *http://www*

wizard: a Help feature that guides users through multi-step processes to create common documents

Word wrap: a word processing feature that automatically moves continuing text to the line below when the previous line becomes full.

Worksheet: a spreadsheet containing cells in columns and rows

