Computer Concepts

Building Your Keyboarding Skill

Technology Overview

Keyboarding skill is important in using all types of software. It is also an important part of most people's jobs. Whether people work as technicians, historians, engineers, retailers, teachers, scientists, or social workers, their daily jobs usually require them to key information. To build speed and accuracy in keyboarding requires practice and concentration. Always use the correct techniques when you type. Be sure you are correctly seated at the computer, adjusting your chair so that your feet are firmly on the floor and your lower back is supported by the back of the chair. Keep your forearms level and raise your hands somewhat. Do not touch the keyboard or desk with your wrists. Position your fingertips on the home keys. Keep your eyes on the copy, not on your hands.

Content Overview

The goal of this keyboarding activity is to increase your keyboarding speed. Each group of five strokes is considered a "word" (spaces and Enter count as strokes). Your speed is measured by how many five-stroke words you can type in a minute. For example, if you type ten five-stroke "words" in a minute, your "words per minute" (abbreviated WPM) is 10.

Read the following instructions to begin the activity.

Instructions

1. Each of the following exercises is a one-minute drill with the focus on the alphabet keys. It is important that you do these drills in sequential order since they build on one another; do not skip around. Key the text in each drill for one minute. Press Enter after each line. If you reach the end of a drill before time is up, press Enter and start over immediately from the beginning of the drill.

2. Open a word-processing program and create a blank page.

3. Take these speed drills for home keys:
   Drill 1 (Goal: 8 WPM)

   lads fall; as a fad
   lass adds; sad lads

Drill 2 (Goal: 8 WPM)

as a lass; all dads
alas as a lad falls

Drill 3 (Goal: 10 WPM)

as a sad lass; add a lad
lads fall; fads; add all

4. Take this speed drill for keys E and H (Goal: 10 WPM).

he has a sled; she asked
she has a sash; he sells

5. Take this speed drill for keys R and I (Goal: 11 WPM).

she shares a fare; he is fair
her red dress has real frills

6. Take this speed drill for keys E, H, R, and I (Goal: 12 WPM).

he fries fish; she feels fair
free idea; he likes fresh air

7. Take this speed drill for keys T and O (Goal: 13 WPM).

those tools are foolish; these too
jets dot the air; lift off so fast

8. Take this speed drill for keys G and N (Goal: 14 WPM).

sitting in this light; long nights
golden raisins and grains are good

9. Take this speed drill for Left Shift and Period (Goal: 14 WPM).

Ken likes Jen. He said John is in.
Hold on. OK. I see. No one has it.

10. Take this speed drill for keys T, O, G, N, Left Shift, and Period (Goal: 15 WPM).

Nikki greets Lara. I told Ossie a joke.
He kids Les. Nan is Irish. Lea led Nat.

11. Take this speed drill for keys C and U (Goal: 16 WPM).

Julia hugs her cousin Lucie once again.
Urge Louis to accrue one hundred coins.

12. Take this speed drill for keys W and Right Shift (Goal: 16 WPM).

Shawn wanted to write. Rowan went west.
Dan is a D.A. in D.C. He was a witness.

13. Take this speed drill for keys X and M (Goal: 17 WPM).

Mr. Marx meets Xena in March.
Tim fixes machines in Mexico.
Matt Solomon mined metal ore.

14. Take this speed drill for keys C, U, W, X, M, and Right Shift (Goal: 18 WPM).

Michi locates the crux of it.
Dr. Dux makes music on a sax.
Her hat is crushed in a rush.

15. Take this speed drill for keys B and Y (Goal: 18 WPM).

Moby brings Ben a toy rabbit.
Becky enjoyed yoga yesterday.
Rob blabbed about your story.

16. Take this speed drill for keys V and P (Goal: 19 WPM).

Vince has one pet peeve.
Liv appeared very peppy.
View Venus and the moon.
Buy very purple violets.

17. Take this speed drill for keys Q and Comma (Goal: 19 WPM).

Quentin quips about age.
Buy quarts, not gallons.
She asks for equal time.
Do not quibble with him.

18. Take this speed drill for keys B, Y, V, P, Q, and Comma (Goal: 20 WPM).

Jane bought a new Viper.
I provided yellow paper.
Pave your patio, please.
Quit playing that piano.

19. Take this speed drill for key Z (Goal: 21 WPM).

A piazza is an Italian public square.
Zika saw lots of zebras at the zoo.
Zanesville is located in Ohio.

20. Evaluate your speed and accuracy. Assess your posture and keyboarding technique. Did you remember to maintain your correct keyboarding posture and to keep your eyes on the copy?

Computer Concepts

Creating a Graphic Organizer on the Computer

Technology Overview

Arguments for and against a particular proposition can be represented in many graphic ways. In this activity, you will create a graphic organizer to present key points in an argument. You will use drawing and text tools to design a pro/con graphic organizer. You will include various shapes, fonts, styles, and colors to enhance the appearance of your graphic organizer. Finally, you will prepare your graphic organizer for publication as an HTML document and, if possible, publish it on the World Wide Web.

Content Overview

For many years, Texans struggled with the idea of remaining an independent nation or joining the United States. There were good reasons on both sides of the argument. There are also many powerful images and symbols—maps, flags, drawings, words from poetry and songs—associated with this period. In this activity, you will conduct research to identify the pros and cons of Texas's annexation to the United States. Then, you will organize your findings by creating your own graphic organizer. You will incorporate a design that relates to Texas in some way. Then, you will share your organizer with a partner and evaluate the effectiveness of each other's design.

Read the following instructions to begin the activity.

Instructions

1. Conduct research online and in your school library to find information about why some people supported the annexation of Texas to the United States and why others opposed it. To conduct research online, open a Web browser and navigate to a search engine. Use keywords such as *Texas annexation* and Boolean search strategies to find relevant information.

2. On your Data Record Sheet, record at least three reasons in favor of annexation and three reasons against it. On the bottom of the Data Record Sheet, design a graphic organizer to illustrate these pros and cons of annexation. Your design should relate to Texas in some way. For example, it should incorporate a Texas-related shape or symbol.

3. Open a draw program and create a new document. (If you do not have access to a draw program, use a word-processing program that includes drawing tools.)
4. Save your document to a disk, electronic portfolio, or other location as instructed by your teacher.
5. Type an appropriate title for your graphic organizer at the top of the page.
6. Format the title to be bold and centered.
7. Decide which type of page orientation is appropriate for your graphic organizer. Format the page setup accordingly.
8. Use the drawing tools to create the graphic organizer you sketched on your Data Record Sheet. Use the sizing, alignment, and arranging functions to design the graphic organizer appropriately. Be sure to incorporate at least one Texas-related shape or symbol in your graphic organizer.
9. Add line color or fill color to your graphic organizer.
10. Save your work.
11. Use the text tools to list the three arguments for and three arguments against annexation in your graphic organizer.
12. Select an appropriate font, font size, style, and color for the text so that it is clear, visible, and attractive.
13. Beside your graphic organizer, type one or two summary sentences that explain the purpose of the organizer.
14. Proofread the text in the organizer and correct any errors in spelling or grammar that you find.
15. Save your document.
16. Print your graphic organizer.
17. Share your work with a partner and evaluate the effectiveness of each other's organizer. Check the accuracy of the information. Then, look for ways to improve the design of the graphic organizer.
18. Make changes to your graphic organizer based on your partner's feedback.

19. Group the parts of your organizer to fix all graphic and text elements into a single image that can be presented on the World Wide Web.
20. Print your finished graphic organizer using a color printer.
21. Save your finished document as a Web page.
22. Exit the draw program or word-processing program you are using.
23. If possible, publish your document on the Internet.

Name _____ Class _____ Date _____

Data Record Sheet **Use with Activity Creating a Graphic Organizer on the Computer.**

Creating a Graphic Organizer Using Drawing Tools

Directions: Use the lines below to record reasons why some people favored the annexation of Texas and others opposed it. Then, in the box on the bottom of the page, sketch a graphic organizer to display your reasons.

For	Against
1. _____	1. _____
_____	_____
2. _____	2. _____
_____	_____
3. _____	3. _____
_____	_____

Computer Concepts

Drawing With a Computer

Technology Overview

If you're like many people, you probably enjoy looking at photos or drawings more than tables or lists of information. The addition of colors, shapes, and pictures can make almost any type of text more interesting. One way to make tables and lists more interesting is to put them in the form of a graphic organizer. Graphic organizers often use shapes that match the type of information they represent. In this activity, you will use the drawing tools in a word-processing program to create a graphic organizer in the shape of a factory. Its shape reflects information that you will gather about the growth of industry in Texas.

Content Overview

On the eve of the Civil War, most Texans still made their living from farming and ranching. Although the war brought many economic difficulties to Texas, the state's economy boomed in the years following the war. Industry grew rapidly, and the number of industries in the state multiplied. In this activity, you will research the growth of industry in Texas between 1850 and 1900. You will then use the drawing tools in a word-processing program to create a graphic organizer to present that information.

Read the following instructions to begin the activity.

Instructions

1. Using the Internet, library resources, a CD-ROM encyclopedia, or your textbook, research information on the growth of industry in Texas between 1850 and 1900.

2. If you conduct your research online, use keywords such as *Texas industry* or a Boolean search strategy such as *industry AND Texas AND 1800s.* When you browse the Web, be careful about downloading large files or ones that might contain viruses. Also, be sure to bookmark any useful URLs for easy reference.

3. As you conduct your research, list your findings in the table on your Data Record Sheet. You will use this table to create a graphic organizer.

4. Cite the sources of your information on a separate sheet of paper. Always use at least two sources to validate your information. If two sources disagree, use a third source to resolve the conflict.
5. Once you have completed your research, open a program that contains drawing tools.
6. You will create a graphic organizer that is wider than it is tall. Use the Page Setup dialog box to change the page orientation from Portrait to Landscape.
7. Using the Rectangle tool, create a medium-sized box in the center of the page to represent a manufacturing plant.
8. Label the plant *Growth of Industry in Texas: 1850–1900.* Be sure to use an en-dash symbol in your title. (Mac users, use the Text Box tool to add the label and then remove the fill and line colors from the text box.)
9. Change the font, font size, and style of the title to make the title stand out.
10. Change the size of the box if necessary to make all the text visible.
11. Change the fill color of the box. Choose a light shade so the text will be easy to read.
12. Save your drawing to a disk, electronic portfolio, or other location as instructed by your teacher.
13. Next, use the Rectangle tool to draw four or five smokestacks (tall rectangles) coming out of the top of the plant. Make the smokestacks different heights and widths.
14. Add fill colors to the smokestacks.
15. Click the drop-down arrow beside AutoShapes in the Drawing toolbar and select Lines and then Freeform.
16. Use the Freeform tool to draw a puff of smoke above the smokestacks.
17. With the puff still selected, click the Copy button.
18. Now, count the number of industries you listed on your Data Record Sheet. Paste the puff enough times so that you have one puff for each industry.

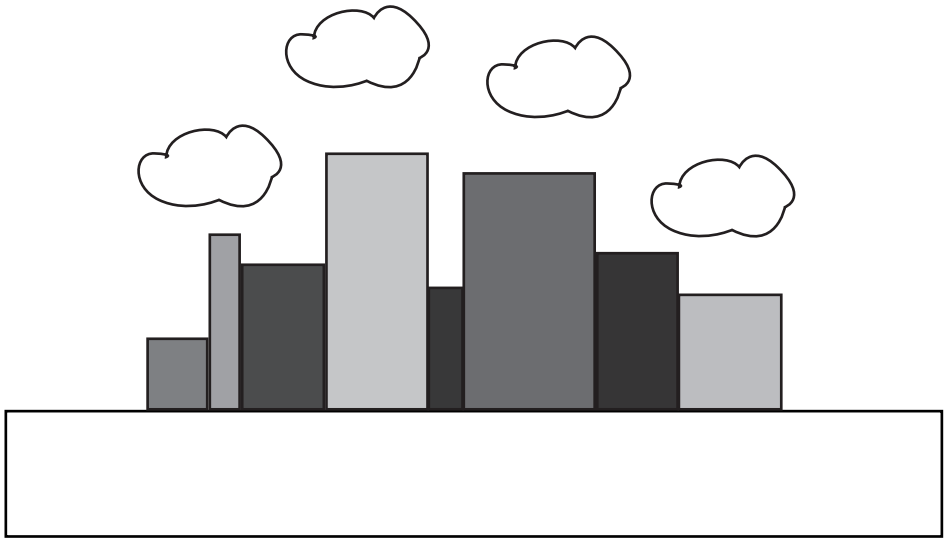
19. On each puff of smoke, add the name of one industry and the year it began.
20. Increase the size of the smoke puff or decrease the font size to make the text fit inside the shape.
21. Add one fill color to all of the smoke puffs.
22. After you have finished creating and modifying all the puffs, arrange them evenly above the picture of the plant and smokestacks.
23. Save your completed organizer.
24. Print your completed graphic organizer and close the program.
25. Share your graphic organizers in small groups, comparing the styles of the organizers, and the industry information they contain. If you discover conflicting information in some of the organizers discuss the sources you used. Revise the organizers to match the information provided in the greatest number or the most reliable sources. As a class, discuss other types of organizers that you might use to show the same information. What are the advantages and disadvantages of using organizer shapes that reflect the topic?

Name _____ Class _____ Date _____

Data Record Sheet **Use with Activity Drawing With a Computer.**

Creating a Graphic Organizer Using Drawing Tools

Directions: Use the space below to record the information you find on the growth of industry in Texas between 1850 and 1900. Cite the sources of your information on a separate sheet of paper.



Texas Industry	Year Developed

Computer Concepts

Copying Material From the Internet

Technology Overview

Arguments for and against a particular proposition can be presented in many graphic ways. In this activity, you will create a graphic organizer to present key points in an argument. You will use drawing and text tools to design a pro/con graphic organizer. You will include various shapes, fonts, styles, and colors to enhance the appearance of your graphic organizer. Finally, you will prepare your graphic organizer for publication as an HTML document and, if possible, publish it on the World Wide Web.

Content Overview

For many years, copyright issues related to material that was recorded or published in print. Material that can be copied from the Internet creates many different issues. Is it legal or ethical to copy music files? How do you find out? There are also many powerful images and symbols—drawings, words from poetry and songs—all of which students may want to copy. In this activity, you will conduct research to identify the pros and cons of whether material on the Internet should be available to everyone for personal use. Then, you will organize your findings by creating your own graphic organizer. You will incorporate a design that relates to the subject in some way. Then, you will share your organizer with a partner and evaluate the effectiveness of each other's design.

Read the following instructions to begin the activity.

Instructions

1. Conduct research online and in your school library to find information about why some people support free access to material on the Internet and why others oppose it. To conduct research online, open a Web browser and navigate to a search engine. Use keywords such as *Copyright* and *Fair Use* and Boolean search strategies to find relevant information.

2. On your Data Record Sheet, record at least three reasons in favor of free use of material and three reasons against it. On the bottom of the Data Record Sheet, design a graphic organizer to illustrate these pros and cons. Your design should relate to the issue of fair use in some way. For example, it should incorporate a copyright symbol and perhaps a musical note.

3. Open a draw program and create a new document. (If you do not have access to a draw program, use a word-processing program that includes drawing tools.)
4. Save your document to a disk, electronic portfolio, or other location as instructed by your teacher.
5. Type an appropriate title for your graphic organizer at the top of the page.
6. Format the title to be bold and centered.
7. Decide which type of page orientation is appropriate for your graphic organizer. Format the page setup accordingly.
8. Use the drawing tools to create the graphic organizer you sketched on your Data Record Sheet. Use the sizing, alignment, and arranging functions to design the graphic organizer appropriately.
9. Add line color or fill color to your graphic organizer.
10. Save your work.
11. Use the text tools to list the three arguments for and three arguments against free access to material on the Internet in your graphic organizer.
12. Select an appropriate font, font size, style, and color for the text so that it is clear, visible, and attractive.
13. Beside your graphic organizer, type one or two summary sentences that explain the purpose of the organizer.
14. Proofread the text in the organizer and correct any errors in spelling or grammar that you find.
15. Save your document.
16. Print your graphic organizer.
17. Share your work with a partner and evaluate the effectiveness of each other's organizer. Check the accuracy of the information. Then, look for ways to improve the design of the graphic organizer.
18. Make changes to your graphic organizer based on your partner's feedback.

19. Group the parts of your organizer to fix all graphic and text elements into a single image that can be presented on the World Wide Web.
20. Print your finished graphic organizer using a color printer.
21. Save your finished document as a Web page.
22. Exit the draw program or word-processing program you are using.
23. If possible, publish your document on the Internet.

Name _____ Class _____ Date _____

Data Record Sheet **Use with Activity Copying Material From the Internet.**

Identifying Pros and Cons and Consequences

Directions: Use the lines below to record copyright issues that you found in your search. For each issue, state your position for it or against it. Also, list the consequences of violating each one that is currently a law. Hacking, causing viruses, and privacy issues may also be copyright violations. Check to see if any of these relate to the issues you studied in your search and what the consequences of those violations might be.

Issue/Law	Pro or Con	Consequences
1. _____	1. _____	1. _____
_____	_____	_____
2. _____	2. _____	2. _____
_____	_____	_____
3. _____	3. _____	3. _____
_____	_____	_____

Computer Concepts

Increasing Keyboarding Skill

Technology Overview

Keyboarding skill is important in using all types of software. It is also an important part of most people's jobs. Whether people work as technicians, historians, engineers, retailers, teachers, scientists, or social workers, their daily jobs usually require them to key information. To build speed and accuracy in keyboarding requires practice and concentration. Always use the correct techniques when you type. Be sure you are correctly seated at the computer, adjusting your chair so that your feet are firmly on the floor and your lower back is supported by the back of the chair. Keep your forearms level and raise your hands somewhat. Do not touch the keyboard or desk with your wrists. Position your fingertips on the home keys. Keep your eyes on the copy, not on your hands.

Content Overview

The goal of this keyboarding activity is to increase your keyboarding speed. Each group of five strokes is considered a "word" (spaces and Enter count as strokes). Your speed is measured by how many five-stroke words you can type in a minute. For example, if you type ten five-stroke "words" in a minute, your "words per minute" (abbreviated WPM) is 10.

Read the following instructions to begin the activity.

Instructions

1. The drills in this activity are provided in pairs. For the first drill, press Enter at the end of each line. For the second drill, start with a tab and use word wrap. If you reach the end of a drill before time is up, press Enter and start over immediately from the beginning of the drill. Also, it is important that you do these drills in sequential order since they build on one another; do not skip around.

2. Open a word-processing program and create a blank page.

3. Take these speed drills using keys 4, 5, 6, and 7.
   One-Minute Drill (Goal: 12 WPM)

   You can get 4 of the 5 items.
   Wait, 5 and 6 do not match.

One-Minute Drill (Goal: 26 WPM)

The Moai statues on Easter Island average over fourteen feet tall. The builders of these stone statues thought they were sacred.

4. Take these speed drills using keys 8, 9, and 0.
   One-Minute Drill (Goal: 13 WPM)

   I let 9 kids make 8 tents at camp.
   Jo hit 80 of 90 balls in the game.

   One-Minute Drill (Goal: 27 WPM)

   The blue pike once swam the cool waters of Lake Erie. With overfishing, changes in habitat, and pollution, the fish has become extinct.

5. Take these speed drills using keys 1, 2, and 3.
   One-Minute Drill (Goal: 14 WPM)

   There are 21 men and 3 women here.
   I found 32 rocks on my trip today.

   One-Minute Drill (Goal: 27 WPM)

   Most students do not look forward to exams. It feels great when an exam is over, but the best feeling of all is when you ace an exam.

6. Review the number keys. One at a time, key a sentence as many times as you can in 30 seconds (Goal: 14 WPM for each line).

   He has 2 birds, 4 dogs, and 1 cat.
   Of the 63 hours, 20 were overtime.
   All 8 students had 50 or 75 cents.
   It is 85 or 90 degrees in the sun.

7. Key the following paragraph for 2 minutes. Start with a tab and use word wrap. If you reach the end before time is up, start again from the beginning (Goal: 27 WPM).

   Of all the people in the public eye, think of someone who you feel is a good role model for you and your friends. It might be someone in the arts, in sports, or even in your town. It might be someone you know. List things about this person that makes him or her special.

8. Evaluate your speed and accuracy. Assess your posture and keyboarding technique. Did you remember to maintain your correct keyboarding posture and to keep your eyes on the copy?

Computer Concepts

Organizing Information in a Database

Technology Overview

How many CDs do you own? Do you know how many of those are by the same artist? Do you know how many have 10 or more tracks? There is a way to store information about your CD collection so that you could find the answer to any of these questions. You could store all the information in a database. Then, you could use the database to sort, group, and analyze information about your CD collection. In this activity, you will create a database to organize information about five Native American groups who lived in Texas before 1850. Then, you will use the database report wizard to create two reports of your choice. Finally, you will print your report and present it to the class.

Content Overview

Have you ever wondered about the lifestyles, religions, and homes of the early peoples who inhabited Texas? In this activity, you will learn about five Native American groups who lived in Texas before 1850. You will discover parallel facts about each group and learn about their daily routines, religions, skills, where they lived, and how they obtained their food. Then, you will use a database program to record information about these groups. Finally, you will create a report to illustrate the similarities and differences among the Native American groups.

Read the following instructions to begin the activity.

Instructions

1. Conduct research online or in your school library to find information about five Native American groups who lived in Texas before 1850. Find the following information about each group: the area in which they lived, the type of dwelling they used, their main source of food, their daily activities, the specific skills they developed, their religious beliefs, and if they were nomadic. Record your findings on your Data Record Sheet. Remember to keep a list of your sources.
2. Open a database program and create a blank database.
3. Save your database to a disk, electronic portfolio, or other location as instructed by your teacher.
4. Create a new table.

5. Create the following fields: *Group, Region, Home, Food, Daily Routine, Skills, Religion,* and *Lifestyle*. Define each field as a text field. Increase the field size for the *Daily Routine* to the maximum number of characters.

6. Save and name your table as *Native American Groups.*

7. Now, create a record for each of the five Native American groups. Use the information on your Data Record Sheet to enter data into all the fields for each record.

8. Change the width of the fields as necessary so that all of the information is visible.

9. Save and close your table when you have finished creating all of the records.

10. Use the online help feature to find out how to create a report using the report wizard. Close the Help window when you are finished reading the instructions.

11. Create a report that groups the Native American groups by lifestyle and sorts them in ascending order according to the name of the group. Include all the fields in the report and use a columnar, or horizontal, layout. Type *Native American Groups by Lifestyle* as the title of your report.

12. View your report. Make any necessary changes to make sure that all of the information is visible.

13. Print your report.

14. Now, create a report of your own. Decide what fields you will include, how you will group and sort the records, and what type of layout you will use. Choose a name for the report that reflects the information it contains.

15. View your report. Make any necessary changes to make sure that all of the information is visible.

16. Print your report.

17. Exit the database program.

18. As a class, analyze your first report. What conclusions can you draw from the information in it? Then, take turns presenting your second report to the class. Explain what information you included in the report, why you chose to include that information, and what conclusions you can draw from the report.

19. Finally, discuss as a class what types of information can be used in a database and why. Brainstorm for situations in which you, your family, or your friends could use a database in your everyday lives.

Name _____ Class _____ Date _____

Data Record Sheet **Use with Activity Organizing Information in a Database.**

Researching Native American Groups in Texas

Directions: Use the chart below to record information about five Native American groups who lived in Texas before 1850. Include specific information to describe each aspect of the Native Americans' lives.

Group	Region	Home	Food	Daily Routine	Skills	Religion	Lifestyle

Computer Concepts

Answering Queries in a Database

Technology Overview

Do you know what the word *query* means in reference to databases? It is actually a filter you apply to database records to filter out records according to set criteria. Queries are useful when analyzing large amounts of data. In this activity, you will create a database file containing information on missions and presidios established in Texas. First, you will conduct research online using keyword and Boolean search strategies to find information about the missions and presidios. Then, you will use a database program to store all the information. Next, you will edit your table by adding a new field. Finally, you will create queries and reports to categorize the information in various ways.

Content Overview

Have you ever wondered what it would be like to live in a mission or a presidio? In this activity, you will learn about three missions and two presidios in Texas. In addition to learning what life was like at the missions and presidios, you will discover the year each one was established, its population, and the important events that occurred there. You will also discover the purpose of the mission-presidio system, how successful the missions and presidios were, and what brought about their decline. You will then use a database program to store and organize all the information you have found.

Read the following instructions to begin the activity.

Instructions

1. Open a Web browser and navigate to a search engine. Use keyword searches or Boolean search strategies to find information about the following three missions in Texas: *San Antonio de Valero (the Alamo)*, *Santa Cruz de San Saba*, and *Corpus Christi de la Ysleta.* Then, use keyword searches or Boolean search strategies to find information about the following two presidios in Texas: *Dolores de los Tejas* and *San Antonio de Béxar.*

2. As you conduct your research, look for information about what country established the mission or presidio, when it was established, the population of the mission or presidio, what daily life was like there, and any important events that occurred there. As you find information, record your findings in the chart on your

Data Record Sheet. On a separate sheet of paper, record the name of the Web site, the URL, and the date you visited the site for each Web site that contains relevant information.

3. Open a database program and create a blank database.
4. Save your database to a disk, electronic portfolio, or other location as instructed by your teacher.
5. Create a table that includes the following fields: *Name of Settlement, Type of Settlement, Year Established, Population,* and *Important Events.* Define each field as a text field except for the Year Established field; define it as a number field. Increase the field size of the *Important Events* field to hold the maximum number of characters.
6. Use the information on your Data Record Sheet to create a record for each mission or presidio.
7. Adjust the width of the columns as necessary so all of the text in the fields is visible.
8. Now, sort the records in ascending order according to the year the mission or presidio was established.
9. Save your table.
10. Close your table.
11. Create a query to find all the missions. Include all the fields in your query. Then, run the query to see your results.
12. Save and close the query.
13. Edit the table you created by adding a sixth field called *Founding Country*. Define the field as a text field.
14. Record the founding country for each mission and presidio in your table. Then, close your table.
15. Create a second query using your new information. Decide what information you would like to have filtered out of the database and what fields you would like to include in your query. Then, use specific criteria to find only those records. Run your query to view the results.

16. Save and close your query. Be sure to select a name for this query that is different from the first query you created.
17. Create a report based on the second query you created. Decide what fields you will include in your report and how you will sort the information. Then, select an appropriate layout and style for your report.
18. Preview, save, and print your report.
19. Exit the database program.
20. Present your report to the class, explaining how the results might be used to compare and contrast the missions and presidios in Texas.
21. As a class, brainstorm other situations in which sorting information or creating a query might be especially helpful for interpreting data in a database.

Name _____ Class _____ Date _____

Data Record Sheet **Use with Activity Answering Queries in a Database.**

Creating a Database of Spanish Missions and Presidios in Texas

Directions: Use the chart below to record information about five missions and presidios that were established in Texas. Include information about the following missions and presidios: San Antonio de Valero (the Alamo), Santa Cruz de San Saba, Corpus Christi de la Ysleta, Dolores de los Tejas, and San Antonio de Béxar.

Name of Settlement	Type of Settlement	Year Established	Population	Important Events

Computer Concepts

Improving Your Keyboarding Skill

Technology Overview

Keyboarding skill is important in using all types of software. It is also an important part of most people's jobs. Whether people work as technicians, historians, engineers, retailers, teachers, scientists, or social workers, their daily jobs usually require them to key information. To build speed and accuracy in keyboarding requires practice and concentration. Always use the correct techniques when you type. Be sure you are correctly seated at the computer, adjusting your chair so that your feet are firmly on the floor and your lower back is supported by the back of the chair. Keep your forearms level and raise your hands somewhat. Do not touch the keyboard or desk with your wrists. Position your fingertips on the home keys. Keep your eyes on the copy, not on your hands.

Content Overview

The goal of this keyboarding activity is to increase your keyboarding speed. Each group of five strokes is considered a "word"(spaces and Enter count as strokes). Your speed is measured by how many five-stroke words you can type in a minute. For example, if you type ten five-stroke "words" in a minute, your "words per minute" (abbreviated WPM) is 10.

Read the following instructions to begin the activity.

Instructions

1. This activity consists of 30-second, 60-second, and 2-minute drills. Key each paragraph for the specified amount of time. Start with a tab and use word wrap. If you reach the end of a drill before time is up, press Enter and start over immediately from the beginning of the drill.

2. Open a word-processing program and create a blank page.

3. Take these 30-second drills (Goal: 35 WPM for each sentence).

   A river is a natural stream of water that empties into an ocean, lake, or other river.

   A delta is a landmass that forms at the mouth of a river by layers of sand and gravel.

4. Take these 60-second drills (Goal: 35 WPM for each paragraph).

    A reef is a ridge of sand, coral, or rock lying at or near the surface of the water. Coral reefs are found in tropical climates. They are made of the remains of sea animals.

    Sally had to change a flat tire. She had never done it before, but had seen other people do it. She found the spare tire and the tools, and made the switch in twenty minutes.

5. Take this 2-minute drill (Goal: 35 WPM).

    Jerry always wanted to write a mystery novel. He had all the details in his head before he even sat down to start writing. He knew the names of all the people in the story. He had the plot worked out. He knew how it would start and end. When he began writing on his laptop, the words flowed like water. Before long, he was ready to write the sequel.

6. Evaluate your speed and accuracy. Assess your posture and keyboarding technique. Did you remember to maintain your correct keyboarding posture and to keep your eyes on the copy?

Computer Concepts

Using Spreadsheets to Analyze Statistics

Technology Overview

Thanks to the Internet, you can find all sorts of information simply by searching the World Wide Web. By using keyword or Boolean search strategies, you can narrow your search to focus on the data you need. In this activity, you first use search strategies to locate statistics on selected Olympic races. Then, you will use a spreadsheet program to create a new worksheet in which to record the data. You also will create formulas to do calculations. Finally, you will use the appropriate data to create a chart that shows which of the selected athletes is the fastest.

Content Overview

Have you ever watched the Olympics? Do you have a favorite sport or event? Olympic athletes often amaze us with their talent and speed. In this activity, you will choose an Olympic sport of interest and research statistics that pertain to it. You'll use these statistics and math formulas in a spreadsheet to determine which athlete is the fastest among your selections.

Read the following instructions to begin the activity.

Instructions

1. Choose an Olympic sport of interest to you that involves speed and distance, such as track and field, swimming, or cycling.
2. Research the Web for data on eight gold-medal winners of the most recent winter or summer Olympics for your selected sport. You will need to find race statistics for similar events for either men's or women's events. For example, you could locate the data for the men's 200-meter butterfly, the men's 200-meter freestyle, the men's 400-meter freestyle, and the men's 100-meter breaststroke. You will compare the athletes' speeds in these races.
3. Use keyword or Boolean search strategies, such as *summer Olympics* or *Olympics AND 2000*, to efficiently locate the data you need on the Web.
4. Record the events, gold-medal winners, country each winner represents, and winning times on the chart on the Data Record Sheet. Be sure to cite your sources on a separate sheet of paper.
5. Open a spreadsheet program to a new worksheet.

6. Save your worksheet by adding the initials of your first and last names to the end of the activity name Using Spreadsheets. Save your new file to a disk, electronic portfolio, or other location as instructed by your teacher.
7. Create four column headings using those from the chart on the Data Record Sheet.
8. Add the information from the chart in the appropriate columns in the worksheet.
9. Create a new column labeled *Miles*.
10. Enter the formula to convert meters into miles in the first cell in the Miles column. The formula is: *miles = meters* * 0.0006214.
11. Copy the formula to the rest of the cells in the *Miles* column.
12. Create a new column labeled *Hours*.
13. Enter the formula to convert minutes/seconds into hours. The formula is: *hours = minutes/60 + seconds/3600*.
14. Copy the formula to the rest of the cells in the *Hours* column.
15. Create a new column labeled *Speed (mph)*.
16. Enter the formula to calculate the speed of each athlete in the first cell in the *Speed* column. The formula is: *r=d/t*.
17. Copy the formula to the rest of the cells in the *Speed* column.
18. Save your worksheet.
19. Now, format your worksheet to best display the information. Experiment with readable fonts, sizes, and borders. Make sure all data is clearly visible in all the cells. Widen the columns, if necessary.
20. Save your work again.
21. Now, chart your data to graphically represent which of the athletes in your table is the fastest. Use the Chart Wizard to select the appropriate type of chart to graphically represent your data.
22. Add an appropriate title and labels to your chart.

23. Print preview your work to be sure your work is displayed clearly. Make any necessary adjustments.
24. Print your worksheet.
25. Save your work one last time.
26. Exit the spreadsheet program.
27. Compare your work with that of a classmate. How does it compare? Evaluate your results. What conclusions can you make about the data that you charted? How does distance affect an athlete's speed?

Name _____ Class _____ Date _____

Data Record Sheet **Use with Activity Using Spreadsheets to Analyze Statistics.**

Calculating Speeds of Olympic Athletes

Directions: Use the chart below to record data from your research. Cite your sources on a separate sheet of paper.

Sport:		Year:	Location:	
Event	**Meters**	**Gold-Medal Winner**	**Country**	

Computer Concepts

Using Software to Create a Timeline

Technology Overview

New technologies allow you to awaken the past and bring it to life right on your computer screen. The past is out there in cyberspace waiting for you to click on its link to bring it alive. In this activity, you will conduct Internet and library research to find information about early European exploration of Texas between 1500 and 1700. You will record your facts in a Data Record Sheet. Then, you will sequence the information by creating a timeline on the computer. You will use objects, lines, arrows, text boxes, colors, photos, images, and clip art to bring the past Texas explorations to life.

Content Overview

Did you know that the French and Spanish governments explored Texas? They sponsored expeditions to this vast land in search of riches and gold. In this activity, you will conduct research on all of the European exploration of Texas. You will record your findings on a Data Record Sheet and then sequence these facts on a timeline. Also, you will find three related photos, images, or clip art to add to your timeline.

Read the following instructions to begin the activity.

Instructions

1. Conduct research online and in your school library to find information about early European exploration of Texas from 1500–1700. To begin your online search, open the Web browser and navigate to a search engine. Use keywords such as *early Texas explorers* or a Boolean search strategy such as *European explorers AND Texas* to search for information. As you find information about each explorer, record the details on the Data Record Sheet. Use the categories in the chart to guide your research.

2. As you research online, find at least three photographs, paintings, or other digital images related to the European exploration of Texas. For example, you might use a photo of a historic fort established by one of the explorers, a painting of an explorer, or clip art of a sailing ship, antique compass, or a French or Spanish flag. Download each file in a format that is compatible with the computer and software you will use to create your timeline. Record the copyright information of the images on the back of the Data Record Sheet.

3. Open a draw program or a word-processing program that contains drawing tools. Create a new document.
4. Save your document to a disk, electronic portfolio, or other location as instructed by your teacher.
5. Decide whether you will create a vertical or horizontal timeline. If you are creating a horizontal timeline, you will need to change the page orientation to Landscape. Adjust the page orientation and margins as necessary.
6. Type an appropriate title at the top of the page. The title should explain that the timeline includes Spanish and French explorers in Texas from 1500–1700. Be sure to use an en dash to show the range of dates.
7. Format the title to be bold and centered.
8. Increase the font size of the title to an appropriate size.
9. Draw a thin rectangle across the center of the page to represent the timeline.
10. Select an appropriate color for the rectangle.
11. Use WordArt or text boxes to add the labels in 50-year increments to your timeline. For example, your timeline will begin with 1500, then 1550, and so on, ending with 1700. Position the years on your timeline in even intervals.
12. Save your work.
13. Look at the information on your Data Record Sheet and determine the first explorer in the chart. Draw a text box in the appropriate place along the timeline. Then, type the explorer's name, the date of the exploration, and the area that was explored.
14. Format the text with an appropriate font and font size.
15. Draw an arrow from the text box to the appropriate location on the timeline.
16. Repeat this process to add the remaining explorers to the timeline. You may wish to place some text boxes above the timeline and others below the timeline to avoid crowding the text.

17. Save your changes to the timeline.
18. Select two light colors—one color for French explorers and one color for Spanish explorers. Add the appropriate fill color to each text box.
19. Insert the three images you downloaded earlier. Resize the graphics as necessary and position them directly above or below the related events on the timeline.
20. Type the source of the image and the copyright information near the image, if applicable.
21. Proofread your timeline and correct any errors you find.
22. Spell check your document.
23. Save your document.
24. Add a key to your timeline by drawing a text box and typing the words *Spanish* and *French*. Then, draw a small square next to each label and fill the square with the corresponding color used in the timeline.
25. Preview your document to make sure all objects fit on the page and are within the print boundaries. Make any necessary adjustments.
26. Save your finished document.
27. Print your timeline.
28. Find a partner and compare timelines. Resolve any discrepancies in information that you find. If you discover that you have omitted an explorer or used inaccurate information, revise your timeline accordingly and reprint it.
29. Exit the draw program or word-processing program that you are using.

Name _____ Class _____ Date _____

Data Record Sheet **Use with Activity Using Software to Create a Timeline.**

Sequencing Early Texas Explorers

Directions: Use the chart below to record information about European explorers who came to Texas from 1500–1700. Use information that you find on the Internet or in print sources to complete the chart.

Early Explorers in Texas			
Explorer	**Date of Exploration**	**Place Explored**	**Explorer's Country (Spain or France)**