What is an Operating System?

Hi! I'm Sarah, and I'm here to tell you about a computer's operating system and guide you through navigating a computer.

We'll follow along with Jane. Jane wants to use the computer to create a letter with pictures to send to family and friends.

She sits down at the computer and turns it on.

Let's take a look.

When Jane first turns on the computer, software starts running behind the scenes that manages all the different computer programs and processes.

That software is called the operating system.

Just like your brain works to manage your body to make sure you are breathing and your heart is pumping, the operating system manages the functions of the computer to make sure everything is working together.

There are different operating systems.

If you own a Macintosh computer, your operating system is called "OS ten" and written as OS X.

Most personal computers, or PCs, come with a version of the Windows operating system.

Some people also run an operating system called Linux.

Desktop

The computer Jane is using is a Macintosh and is running the OS X operating system.

When the computer has started, Jane sees what's known as the desktop in the monitor.

Here we see the OS X desktop.

If you're using a Mac that has a different version of the operating system running, the desktop may look different.

The desktop is just like the top of Jane's desk at home or at work, where she keeps different folders with papers in them, and other tools she needs to get things done, such as a calculator for math, a pen for writing, or a book for looking things up.

Just as Jane has folders and tools on her wooden desk, she also has those tools and folders on the computer, which she can access through the desktop.

Launchpad Shortcut

Writing Application Shortcut
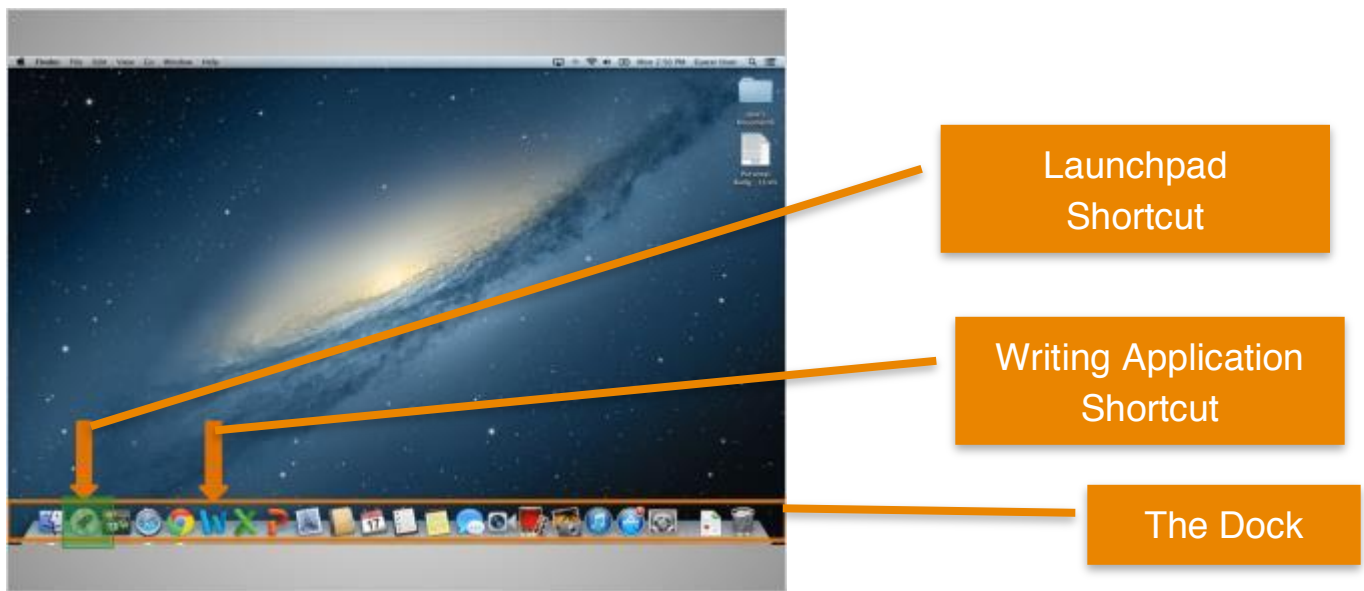
The Dock

On a Mac, files and folders are often kept on the desktop and applications are often found in the Dock.

The Dock is usually located along the bottom of the screen but can also appear on the left or right side. The Dock is where access to applications is located.

To open an application, she can click on these icons, also known as shortcuts, since you can open the application right from the dock.

If Jane wanted to handwrite a letter, she would use her pen. Since she wants to create a letter on her computer, she would click on the icon for the writing application to open it.

Applications are tools that allow you to do things on a computer.

Some applications allow you to work on text documents, like the one Jane will use for her letter, and others allow you to do things like edit pictures or do math.

Another way to access applications is through the Launchpad. While the Dock has the most commonly used applications on it, it may not have all of them. Clicking on the icon that has a rocket ship on it will open the Launchpad.

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The Launchpad lists all applications. You can click on a shortcut for an application in the Launchpad to open that application, just as you could in the dock.
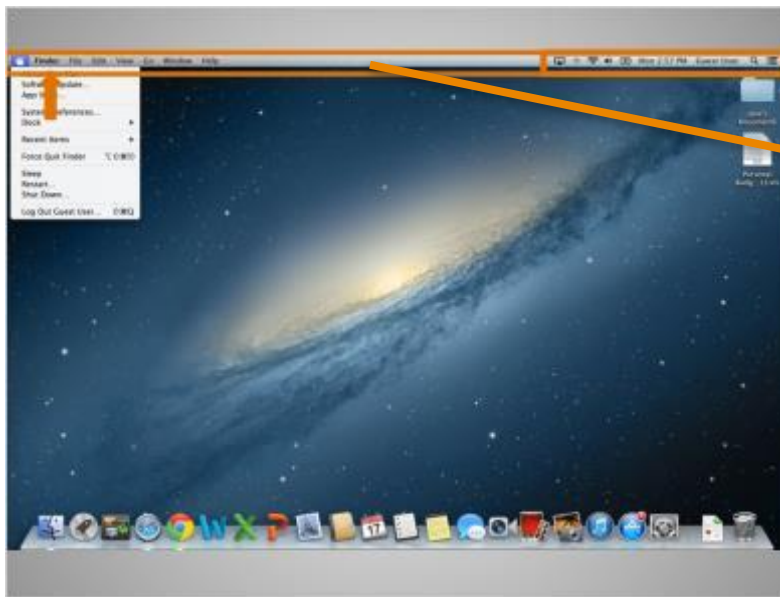
The Menu Bar

Above the desktop at the top of the screen is the menu bar, which includes different menu options depending on what program you are in.

In this example, the active menu is the finder menu, as that is the default for the desktop. Later we will see a menu in an application.

A few parts of the menu bar don't change.

The apple icon in the top left is where you can do things like shut down your computer and change the computers settings.

On the right side of the menu bar is a collection of icons that allow you to see the date and time, adjust volume, and more.

Files and Folders

While an application is a tool, such as the writing application that Jane will use to write her letter, the letter itself is stored in a file.

A file is a package of information.

That package could include text, like a letter or a recipe, or a photograph, a video, or music.

You can open a file icon that is on the desktop by double-clicking on it.

When you open a file, it will open in the default application that file works in.

For example, by double-clicking the budget file, it will automatically open Microsoft Excel since that is the application it works in.

Folders on the computer are like the folder that was on Jane's wooden desk.

Just as the folder on her wooden desk contains letters, pictures, and other documents, the folder on the desktop contains the files we just mentioned.

Jane double-clicks the folder now to open it.

Double-clicking the folder will open a window that show the files in the folder, just as opening a paper folder allows you to sort through the documents in that folder.

Double-clicking on a file in a folder will open it. Jane double-clicks the file called Happy New Year 2013.

Using a Window
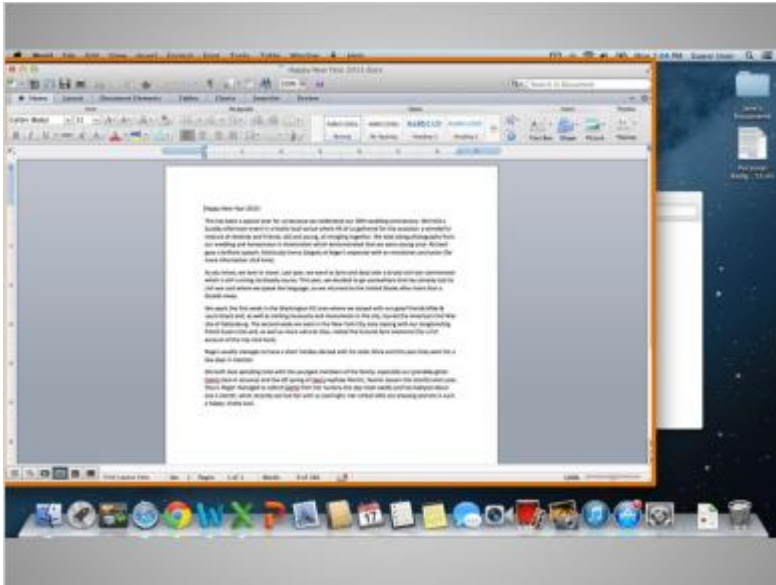
Once a file or folder opens, you will see a window.

A computer window gives you a view into a file, folder, or an application just like a store's window gives you a view into the store.

The window is your working area.
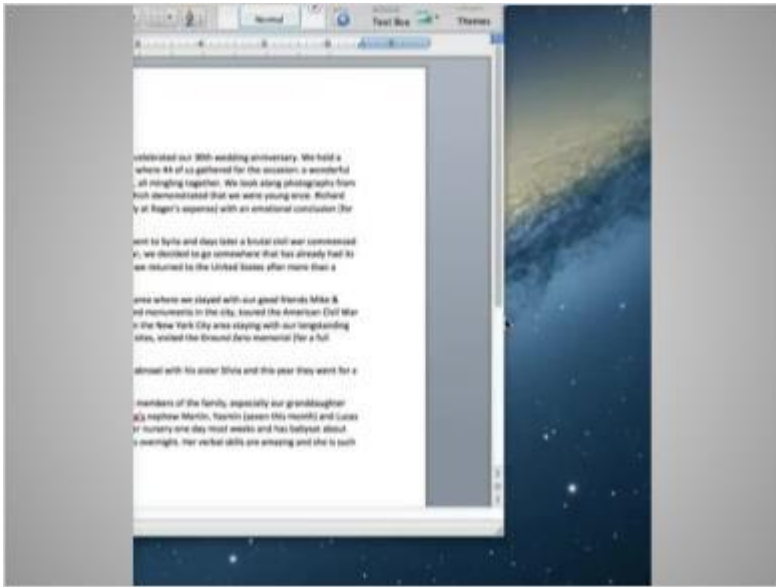
When you open a window, it may appear in a size that's too big or too small for your work.

You can change the size of the window by hovering over a border or corner of the window with the mouse.

The mouse will then become a double-headed arrow.

You can then click and hold the left mouse button to "grab" the edges of the window.

Jane drags the arrow to change the size of the window.

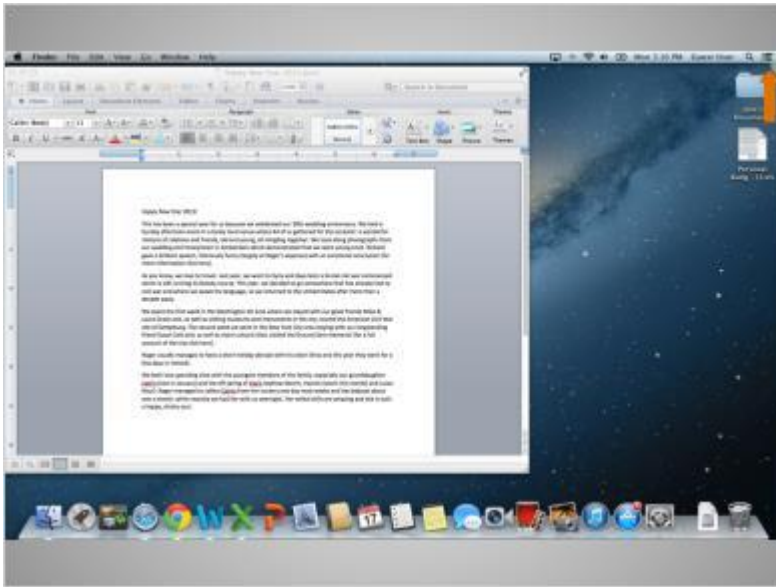She releases the mouse button when the window is the desired size.
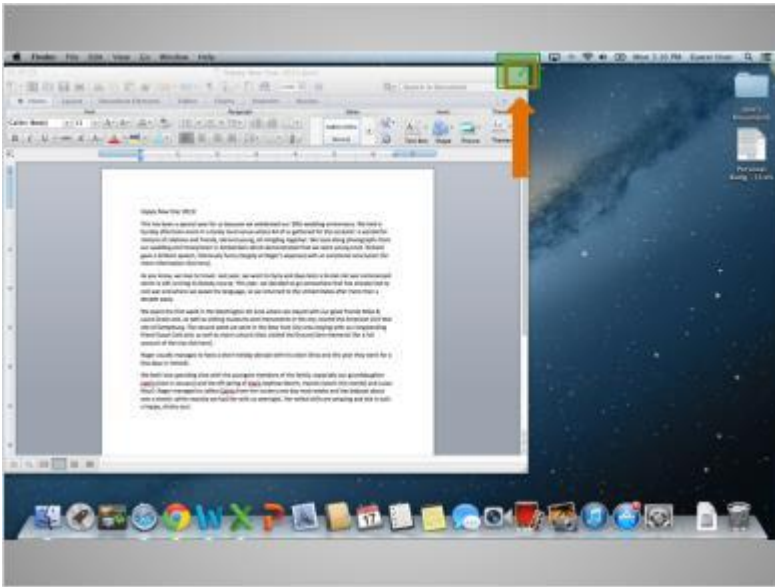
The top of the window includes some tools to help you manage the size and shape of the window.

If you wanted a window to fill a desktop, you could do that by clicking the arrows at the top right of the window.
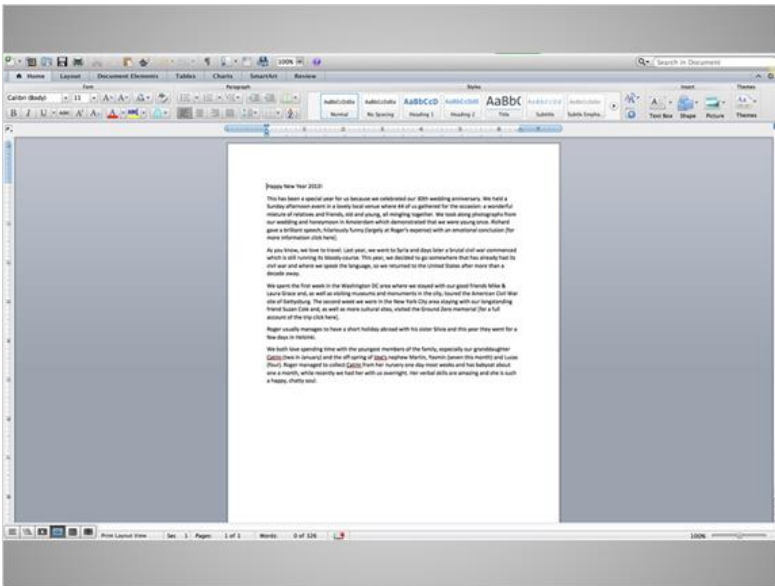
When Jane clicks the arrows, the document fills the entire screen. The menu bar is also hidden.

When you want to make the window smaller again, it can be a bit tricky since the menu bar is hidden.

You have to bring your mouse cursor to the very top right corner of the screen and let it sit there for a second.

The menu bar will appear again and the arrows will appear in a blue box.

You would then click on that box to return the window to its original size.
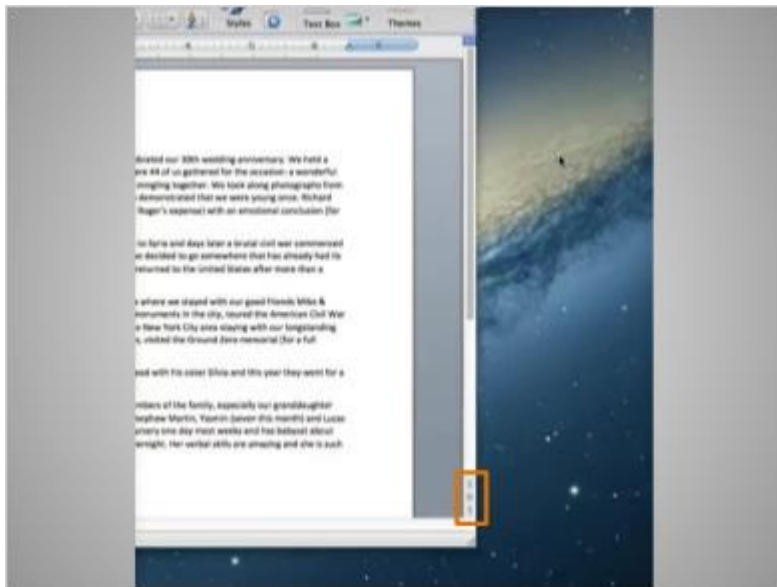
You can scroll in the window to display different content. This will move you up and down the page, similar to turning the pages of a multipage document.

This can be done in two different ways.

One way is to click and hold the left mouse button on the scroll bar to "grab" it and then drag it to move in the document.

The other way is by clicking on the arrows on the scroll bar.
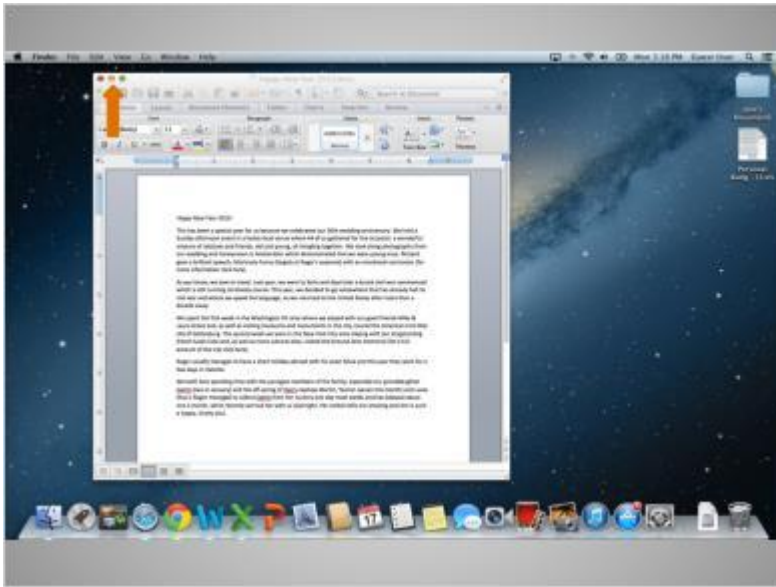
If you need to access other files or folders on the desktop, you can use the yellow button at the top left of the window to minimize that window.
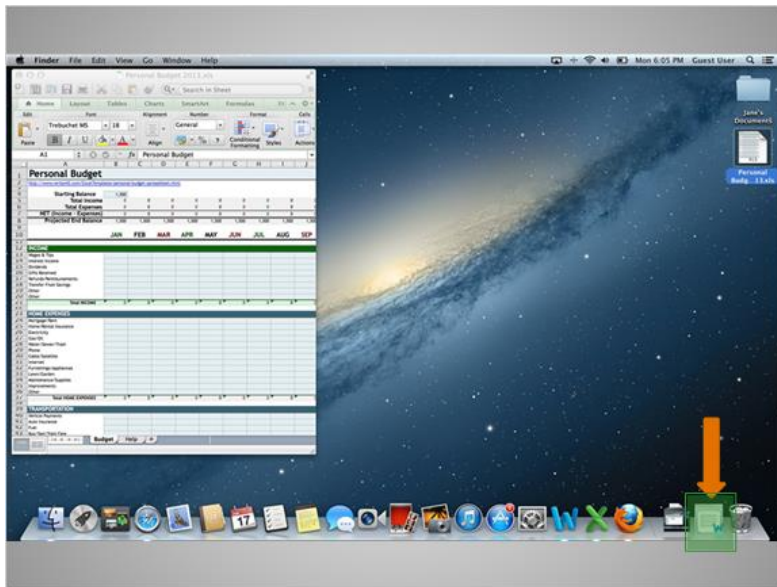
This will collapse the window into the dock at the bottom of the screen so that you can see and use the desktop.

Now that the first file is minimized, it appears on the dock at the bottom as an icon.

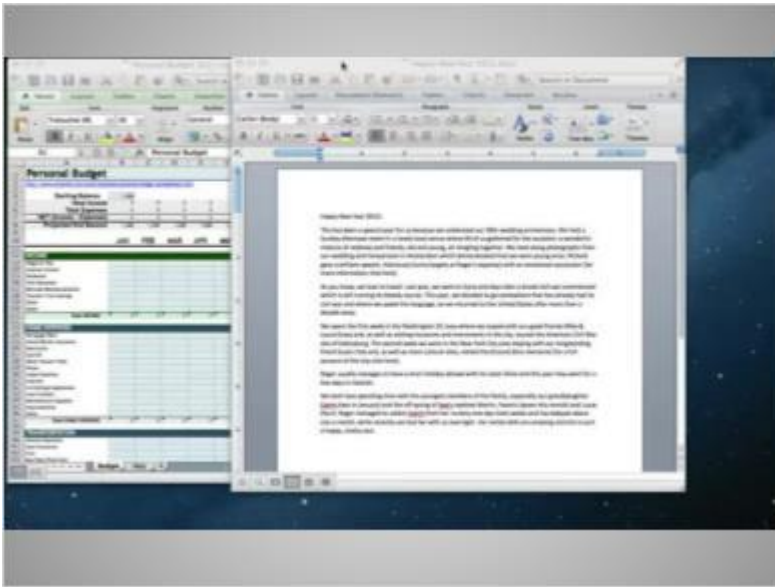This frees up the desktop so that we can find another file.

We'll double click on the personal budget file now to open it.

It is possible to have many windows open at the same time.

This allows you to switch between tasks, or work between multiple files.

Single clicking on the icon for the first file that is in the dock will open it back up, so that we have two open files.

When you have two windows open, you may want to move them around to make it easier to move between them.

You can pick up a window by the grey bar at the top and move it.
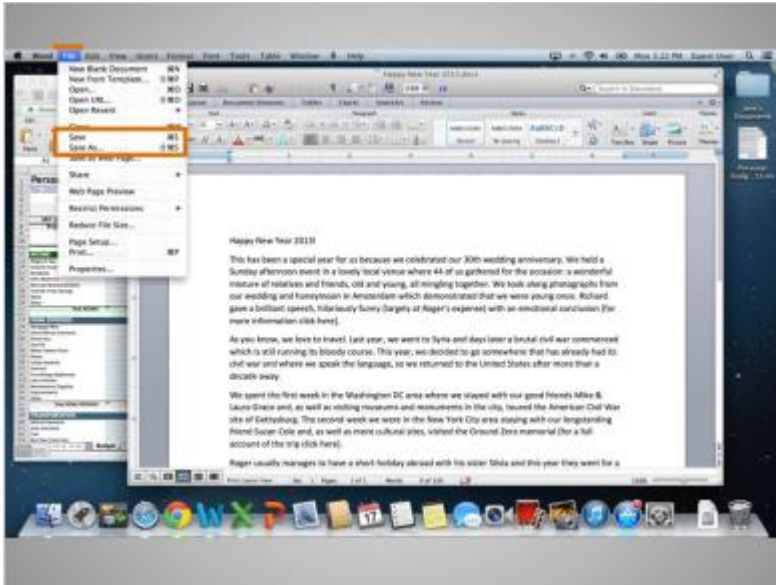
You would do this by placing the cursor of your mouse above the grey bar and clicking down on the mouse button.

While still holding the mouse button down, move the window.

When the window is where you want it, release the mouse button to place the window.

Again, windows can also be resized to make it easier to work between them.

Saving and Closing

Occasionally, while you are working on a file, or before you close it, you will want to save your work.

You will notice that the menu bar we mentioned earlier is now specific to the application we are in, rather than the general finder.

You can tell what application the menu is using by the name next to the apple icon.

We are currently in the application called Word. When we click on the word "File" in the menu, a drop-down menu will appear.

The Save and Save As options appear in the drop-down.

If you have already saved this file before, know the location where it is saving, and the name it is saved under, you can simply click the "Save" option from the menu that appears in the new window.

However, if this is the first time you are saving this file or you would like to change the name or location of the file, you will want to use the "Save As" function.

Then you can select where the saved file is located on your computer, such as on the desktop or in a folder, and select a name for the file.
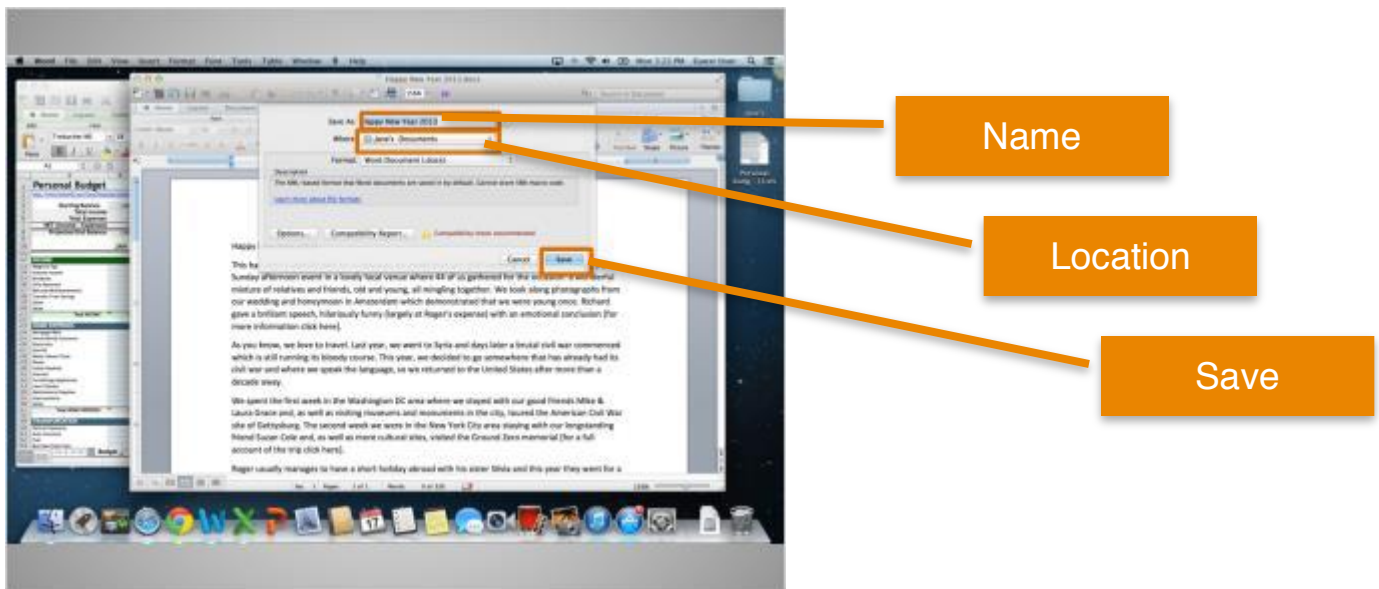
When you select Save As, a new window will open. This is the Save As window.

Type the name of the file in the Save As field.

Then select the location where you want to save the file. Remember to choose a location that you will remember, such as on the desktop or in a specific folder.

In this example, Jane is saving this file in her documents folder that is on her desktop.

If you are using a public computer, there may be limits on where you can save files. Seek help from a staff person at the computer center for more information on saving on a public computer.

Lastly, click the Save button to close the window and save your file.
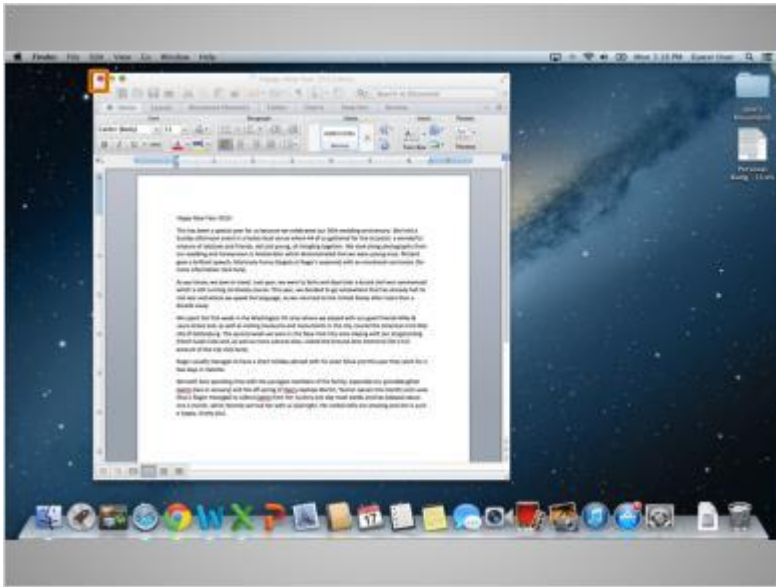
When you are done with your file and have saved it, you will then want to close it.

You would click the red button at the top left of the window to close the file.

If you have made changes to your document since the last time you saved, and you try to close the file, a window will open asking you if you want to save changes.

Clicking the Save button now will save and close this file.
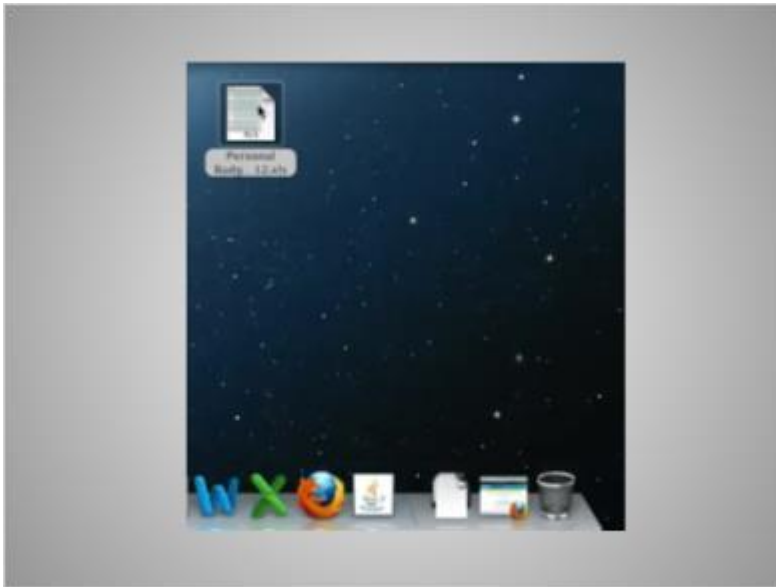
Deleting

If you are completely done with a file and won't need it again, you can delete it.

To delete things, you will use the trash can, which is located on the Dock at the bottom right of the screen.

When there is nothing in the trash, the icon will appear empty.

To delete a file, click and hold down the left mouse button to select the file and drag it to the trash bin located on the right of the dock.

Once there are items in the trash, the icon will appear full.

Like the trash bins in your home, things stay in the trash until you empty the trash and take it out.

That means that you can still get a file that you placed in the trash out, as long as you haven't "emptied" it.

When you click on the trash icon, a window showing the contents of the trash will open.

To get an item back out of the trash, click and hold down the left mouse button on top of the item you want, to select it and drag it to the desktop.

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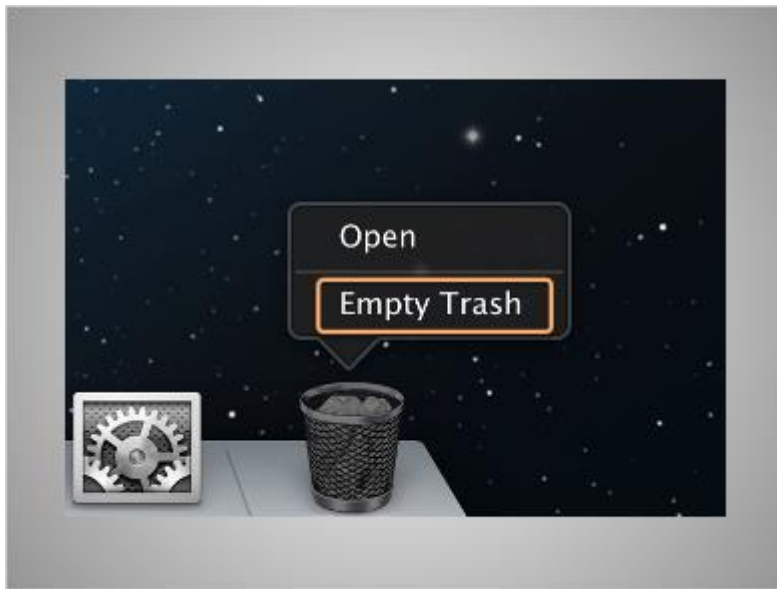
When you are sure you are done with everything in the trash, you can "empty" it and the files in there will be gone permanently.

In order to empty the trash, right-click on the icon, then click on Empty Trash.