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| Papyrus helped early man to record language and numbers. The abacus was one of the first counting machines..  Some of the earlier mechanical counting machines lacked the technology to make the design work. For instance, some had parts made of wood prior to metal manipulation and manufacturing. Imagine the wear on wooden gears. This history of computers site includes the names of early pioneers of math and computing and links to related sites about the History of Computers, for further study.  A **computer** is an electronic device that manipulates information, or "data." It has the ability to **store**, **retrieve**, and **process** data. You can use a computer to type documents, send email, and browse the internet. You can also use it to handle spreadsheets, accounting, database management, presentations, games, and more. |

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| Computers Simplified  For beginning computer users, the computer aisles at an electronics store can be quite a mystery, not to mention overwhelming. However, computers really aren't that mysterious. All types of computers consist of two basic parts:   * Hardware is any part of your computer that has a physical structure, such as the computer monitor or keyboard. * Software is any set of instructions that tells the hardware what to do. It is what guides the hardware and tells it how to accomplish each task. Some examples of software are web browsers, games, and word processors such as Microsoft Word. * Anything you buy for your computer can be classified as either hardware or software. Once you learn more about these items, computers are actually very straightforward. * The first electronic computer, the Electronic Numerical Integrator and Computer (ENIAC), was developed in 1946. It took up 1,800 square feet and weighed 30 tons.  What are the Different Types of Computers? When most people hear the word "computer" they think of a **personal computer** such as a **desktop** or **laptop**computer. However, computers come in many shapes and sizes, and they perform many different functions in our daily lives. When you withdraw cash from an ATM, scan groceries at the store, or use a calculator, you're using a type of computer. |

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| Desktop Computers A desktop computer  Many people use **desktop computers** at work, home, school, or the library. They can be small, medium, or large in style, and usually sit on a desk. Once you add a monitor, mouse, and a keyboard, you have what is typically known as a desktop computer.  Most desktop computers are **easy to upgrade** and **expand**, or add new parts. Another benefit of desktop computers is the**cost**. If you compare a **desktop** and a **laptop** with the same features, you will most likely find that the desktop computer is priced lower.  Some desktop computers have a built-in monitor to save space. These are often called all-in-one desktop computers. Laptop Computers A laptop computer  The second type of computer that you may be familiar with is a **laptop computer**, or laptops as they are often referred to. Laptops are battery or AC-powered personal computers that are **more portable**than desktop computers, allowing you to use them almost anywhere.  Since a laptop is smaller than a desktop, it's more difficult to access the internal components. That means you may not be able to upgrade them as much as a desktop. However, it's usually possible to add more **RAM** or a bigger **hard drive**.    A **laptop** computer is sometimes called a **notebook computer**because of its size. |

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| ServersA server room A **server** is a computer that "serves up" information to other computers on a network. Many businesses have **file servers** that employees can use to store and share files. A server can look like a regular desktop computer, or it can be much larger.  Servers also play an important role in making the internet work: they are where **web pages** are stored. When you use your browser to click a link, a **web server** delivers the page you requested. Other Types of Computers Today, there are many different types of computers that you can buy, and some of them are even more portable than laptops. Here are a few common examples: |

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| The iPad, a type of tablet computer   * **Tablet Computers:** These use a **touch-sensitive screen** for typing and navigation. Since they don't require a keyboard or mouse, tablet computers are even more portable than laptops. The **iPad** is an example of a tablet computer. * **Mobile Phones:** Many mobile phones can do a lot of things a computer can do, such as browsing the internet or playing games. These phones are often called **smartphones**. * **Game Consoles:** A **game console** is a specialized kind of computer that is used for playing **video games**. Although they are not as fully-featured as a desktop computer, many newer consoles, such as the**Nintendo Wii**, allow you to do non-gaming tasks like browsing the internet. * **TVs:** Many TVs now include **applications** (or **apps**) that let you access various types of online content. For example, you can view your **Facebook news feed** or watch streaming movies on **Netflix**.  PCs and Macs Personal computers come in two main "styles": **PC** and **Mac**. Both styles are fully functional, but they do have a different look and feel, and many people prefer one or the other.  A PC  A Mac   * **PC:** This type of computer began with the original **IBM PC** that was introduced in 1981. Other companies began to create similar computers, which were called **IBM PC Compatible** (often shortened to **PC**). Today, this is the most common type of personal computer, and it typically includes the **Microsoft Windows**operating system. * **Mac:** The **Macintosh** computer was introduced in 1984, and it was the first widely sold personal computer with a Graphical User Interface, or **GUI** (pronounced gooey). All Macs are made by one company, **Apple Inc.**, and they almost always use the **Mac OS X** operating system.   Although **PC** can refer to an **IBM PC Compatible**, the term can also be used to refer to any **personal computer**, including Macs. |

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| About This Tutorial In this tutorial, we'll mostly be focusing on **PCs** and the **Windows** operating system. If you're using a **Mac**, you may notice some differences with the way that your computer works. However, much of the information in this tutorial will still apply, no matter what kind of computer you're using. Challenge!  * Think about the **activities you perform** or want to perform using a computer (email, online shopping, etc.). * Think about all the computers that are necessary for you to complete your **day-to-day activities**.   + Is it a computer that controls the stoplights so you can drive to work?   + How did the cashier scan and calculate your grocery items?   + Does the coffee store you visit use a computer to order their inventory?   + Is the weather map on television computer-generated? |