Your Name Mr. Larson Beginning Computers July 4, 1776

Binary

Our computer speaks a language called **binary**. It is a very interesting language because unlike our English language, which is made up of letters, words, sentences, and paragraphs, it is made up of numbers!

The most basic part of the **binary** language is called a **bit**. A **bit** is created when a *transistor* in the *CPU* turns on or off. If it turns on it creates a 1. If it turns off it creates a 0.

In order to be useful though, the computer has to combine eight bits together to make a single letter of the English alphabet! Each time you press a capital letter A, the keyboard sends 01000001 to our computer. We call these eight zeros and ones a **byte**!

Every single letter of the alphabet, our numbers, and all the *symbols* on the keyboard have their own unique code of eight 0's and 1's making up a whole lot of **bytes**.

Because of the way our computer works, it has to have something called a kilobyte. A **kilobyte** is a group of 1,024 bits. As a human, we do not deal with kilobytes very much, but we have probably heard of another word called a megabyte though.

A megabyte has 1,048,576 **bits**, 121,072 **bytes**, and 1,024 **kilobytes**. Another interesting thing is that it takes 1,024 megabytes to make up a **gigabyte** which is the next way to measure things in binary.

To a human being such as us, it probably seems like a complicated language to speak. However, to a computer, it is just a bunch of **bits**!

Etherington, Dr. Cheyenne M. and Dr. Sam J. Montoya. <u>Zeros and Ones</u>. Salt Lake City: Bailey Seamons Publishing Incorporated, 2011. Pages 22-33.

Bibliography: From a book with 2 authors and page numbers.

Type in the name of the person, the name of the book, the city it was published in, the name of the company that printed the book and the date it was printed.

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 Font is Arial 12 today.
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