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.

You have also probably heard of something called a terabyte. A terabyte has 1,024 gigabytes in it.

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. Zeros and Ones. Salt Lake City: Bailey Seamons Publishing Incorporated, 2011. Pages 22-33.

## Reference Information: 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.

## Directions:

1. Circle bold and italic words
2. Do your "Every Day" steps.
3. Do your "New Assignment Steps."

- Font is Arial 12 today.

4. Save your work often.
5. Print and proofread carefully and then turn in your paper.
6. 311 words are in this paper.
