

What is a computer?

Okay, you have this device sitting in front of you and you know it is called a computer. You use one every day in both your job and your personal life, but do you know how stupid it is? I bet you thought a computer was very smart, well probably the software it is running is, but no, the computer itself is dumb as a rock. You pick up a rock and the one side is most likely dry and possibly shiny, but turn it over and you will most likely see that it is moist and dull. Basically, a computer is about the same. It only knows zeros and ones.

Sure, there is more to a computer than that. There are memory chips, logic boards, audio/video boards, maybe even a high-end gaming board, but all that works off of only ones and zeros. Information is stored in 'memory locations' in the memory chips or on the disk drive, but it is stored as ones and zeros.

These ones and zeros make up words which then make up larger documents. The location of each one or zero is stored in what is called a 'bit' and the combination of bits then make up the words, and let's not forget numbers as well. In the example above about a rock, think of the dry side as a zero and the wet side as a one. Now take several rocks and lay them down in a row with some showing the dry side and some the wet side. Let's let the WET side equal one and the DRY side equal zero. Below you have five bits.

WET DRY DRY WET WET

The numbers would then be.

1 0 0 1 1

This then equals the number 19 since you read from right to left in binary.

16 0 0 2 1

You see each position; the number value doubles as you move right to left.

Value for each position then would be.

16 8 4 2 1

This sequence keeps progressing as high as you need to go. Yes, I know I was not going to put a bunch of technical terms on you, but this is a basic as it can get and it could be a great deal more technical.

Happy computing now that you know how much smarter you are than the computer you are using 😊