In this lesson, we'll explain and articulate what programming is, its fundamentals and how it shapes the modern world.

Put simply, *programming is giving a set of instructions to a computer to execute*. If you've ever cooked using a recipe before, you can think of yourself as the computer and the recipe's author as a programmer. The recipe author provides you with a set of instructions which you read and then follow. The more complex the instructions, the more complex the result!

When we give instructions to a computer through code, we are, in our own way, communicating with the computer. But since computers are built differently than we are, we have to translate our instructions in a way that computers will understand.

Computers interpret instructions in a very literal manner, so we have to be very specific in how we program them. Think about instructing someone to walk. If you start by telling them, "Put your foot in front of yourself," do they know what a foot is? Or what front means? (and now we understand why it's taken so long to develop bipedal robots…). In coding, that could mean making sure that small things like punctuation and spelling are correct. Many tears have been shed over a missing semicolon (;) a symbol that a lot of programming languages use to denote the end of a line.