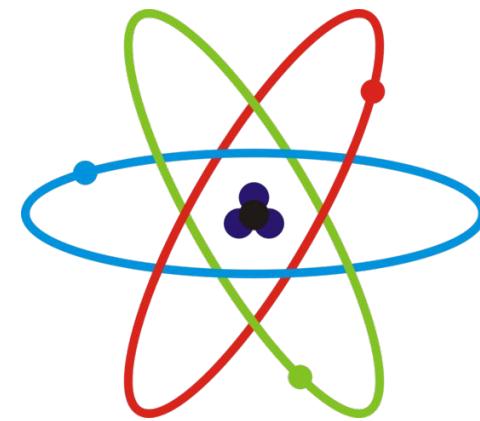


Computer Architecture from 10,000 Feet

```
int foo(int x) {  
    ...  
}
```



Computation



Convenient
physical
phenomenon

we use abstractions to make this easier

Abstraction Layers that Makes this Easier

Computation

Language/API

Compiler/OS

ISA

Microarchitecture

Circuit

Layout

Design rules

Process

Material science

Physics

`int foo(int x) {...}`



Fortran, C
arm, x86

adder
nand gate
Mead & Conway

