



Episode 1 (Study Method)



Hey, hey, hey, fox!  
I want to learn how to use a computer.  
Is there any quick way to learn it?



They say there is no royal road to learning.  
In fact, it is easier to understand if you get the point.



POINT Int, what's that?



For example, the physics we study in high school is Newtonian mechanics, also known as classical mechanics. The key to classical mechanics is to understand  $F=ma$  and derivatives and integrals. Differentiating position leads to the equations for velocity and acceleration, and integrating acceleration leads to the equations for velocity and position. This is what I noticed in the falling apple.



Plus, if you realize that inorganic chemistry is made up of the concept of moles and proportional equations, you'll understand it a lot faster. That is the point! The grasp of the point is something you learn after you've studied the subject all the way through. So, listening to an expert who has been there and done that will help you improve faster.





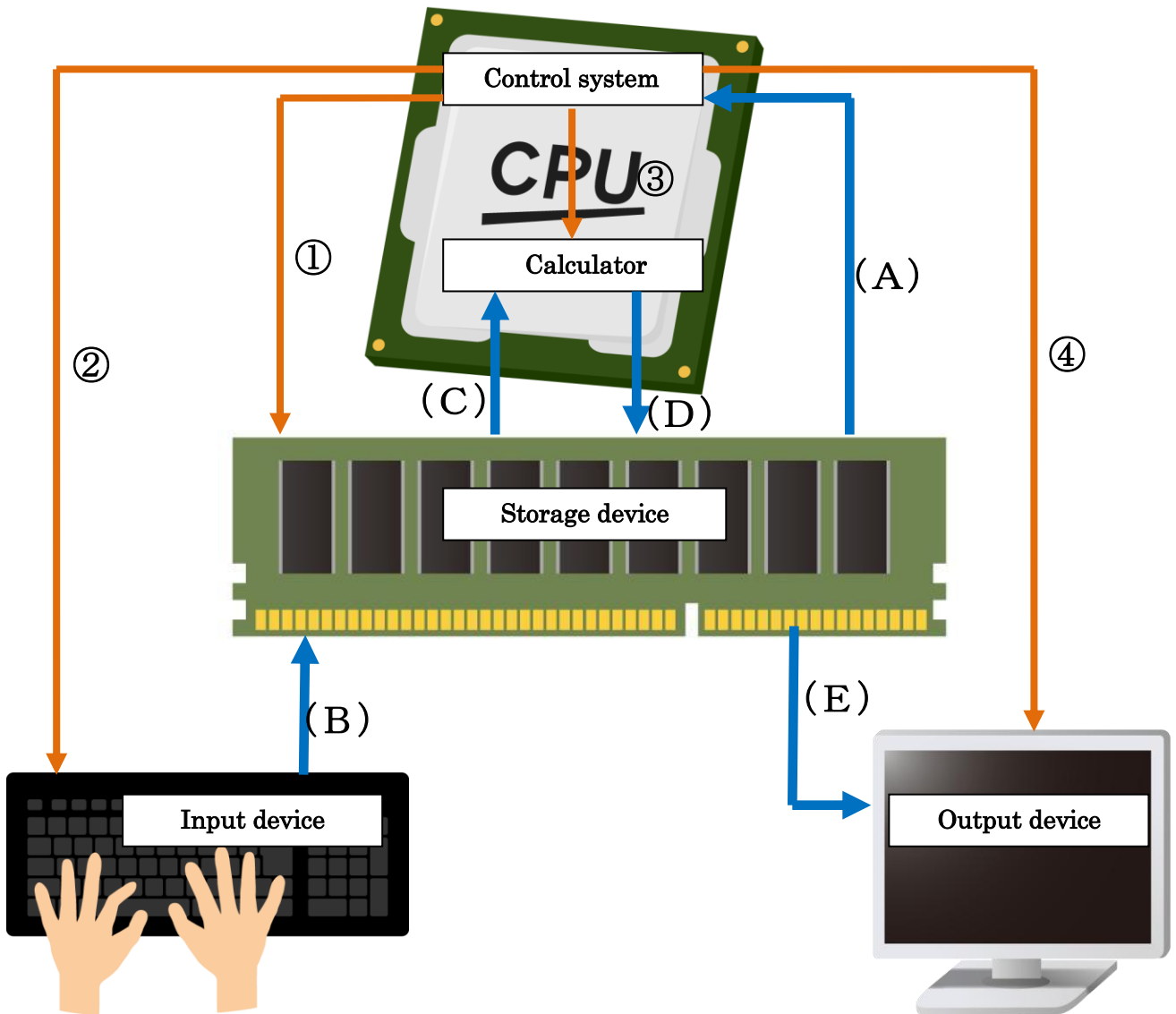
So, Kitsune, give me some pointers on how to understand computers!



Computers, including smartphones, are made up of five major devices and five major functions. It is best to grasp the general flow of data and learn the details later. It is said that if you only look at the trees, you will not see the forest. Let me illustrate the five major devices.

[five major devices]

 : Control  
 : Information (data and program) flow



## [Explanation]

① Turn on the computer (smartphone).

It first instructs the controller to send the program from the storage device to the control unit.

The program that is first loaded is called the BIOS (Basic Input Output System), It is stored in ROM (read-only memory) on the computer's motherboard.

Instructions are given not only once, but also as necessary to send the necessary programs as needed.

(A) Transmits the program from the storage device.

② The controller prompts the keyboard for data.

(B) Press a key to send data to the storage device.

The data from the pressed key is sent as characters, whether alphabetic, Japanese, or numeric.

③ The controller is based on a program, and the arithmetic unit (which can only perform four arithmetic operations and determine the size) The control unit directs the calculation to the

(C) Converts numbers treated as characters into calculable numbers and sends them to the arithmetic unit.

(D) The results of calculations processed by the arithmetic unit based on the program are returned to the memory device.

④ Instructs the output device to send the processing results from the storage device to the output device.

(E) The storage device converts both numerical and character data into a displayable character format and sends it to the output device. and transmit them to the output device.



What is BIOS?



Tanuki! I look up those detail parts myself!

The key here is to grasp the outline.

(Think of the computer process as beginning in (B), when data is sent from the keyboard to the storage device. Understanding the long path from there to the output device is the point and the foundation. Next, let's look at how data input from the keyboard is stored in the memory device.

**Let's move on to the second story!**