Become a Computer Detective: The Case of Inputs and Outputs!

Time: 30 Minutes

Hi Phoebe! Today, we're going on a mission to understand how computers 'talk' to us and how we 'talk' back to them. It's all about Inputs and Outputs!

Warm-up: What Goes In, What Comes Out? (5 mins)

Think about making toast:

- What do you *put into* the toaster? (Bread) - That's like an **input**!
- What *comes out* of the toaster? (Toast) - That's like an **output**

Computers work similarly! They take things in (input), think about them (process), and give things back (output).

Activity 1: You're the Computer! (10 mins)

Let's pretend you are a simple computer whose job is to add 2 to any number someone gives you.

1. **Input:** I will give you a number by writing it on a sticky note (e.g., '5'). This is the input!
2. **Processing:** You (the computer) take the note and mentally add 2 to the number (5 + 2 = 7). This is the processing!
3. **Output:** You tell me the answer ('7'). This is the output!

Let's try a few rounds with different numbers. See? You took input, processed it, and gave output!

Activity 2: Input/Output Device Hunt! (10 mins)

Computers don't use sticky notes like we just did. They use special tools called devices.

- **Input Devices:** Tools we use to give information *to* the computer.
- **Output Devices:** Tools the computer uses to give information *back to us*.

Let's go on a quick hunt around the house (or just brainstorm) and find examples!

Examples to look for/discuss:

- **Input:** Keyboard, mouse, microphone, scanner, camera, game controller. (How do they give info TO the computer?)
- **Output:** Monitor/Screen, printer, speakers, headphones. (How do they give info FROM the computer?)

Let's list as many as we can find or think of in 5 minutes!

Wrap-up: Mission Debrief (5 mins)

Great detective work, Phoebe!

- What's one input device we talked about? What does it do?
- What's one output device? What does it do?
- Can you think of a device that might be BOTH input and output? (Hint: Touchscreen!)

You've cracked the case! You now understand the basics of how we interact with computers using input and output. Keep an eye out for all the different input and output devices you use every day!