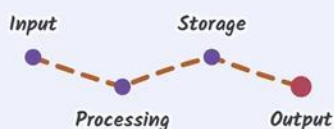


the tools that store and move information, and using them safely and honestly

What ICT covers

- **ICT** is the collection of tools used to create, store, send and receive information
- **hardware** is the physical part: the processor, memory, storage, screen, keyboard and network equipment
- **software** is the set of instructions: the operating system, and the applications that run on it
- **input devices** bring information in, such as a keyboard, mouse, scanner, microphone or camera
- **output devices** send it out, such as a screen, printer or speaker
- **storage** holds it for later, and **memory** holds what is in use right now, which are different things

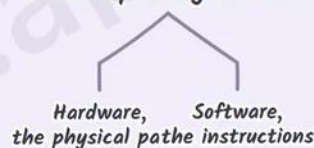


the four stages information passes through in any computing device: data arrives, is worked on, may be kept, and leaves in a usable form. Every device in the chapter fits somewhere in this sequence

What ICT is used for *

- **education** : online lessons, reference material, simulations of experiments that are hard to run in a classroom
- **science** : collecting and analysing data, modelling, and sharing results between distant researchers
- **agriculture** : weather forecasts, market prices, and advice reaching farmers directly
- **health** : records, remote consultation, and diagnostic images shared with a specialist elsewhere
- **banking and government** : transfers, applications and certificates handled without travelling
- **disaster management** : warnings sent quickly, and mapping the damage afterwards

A computing device



the two halves every device is made of: neither is useful without the other, and a question naming only one of them has answered half of what was asked

Networks and the internet

- a **network** is two or more devices connected so they can exchange information
- a **local area network** covers one building or campus, and a **wide area network** spans much greater distances
- the **internet** is the worldwide network of networks, the physical and logical connection itself
- the **World Wide Web** is the collection of pages carried over it, so **the web** is one service running on the **internet**, not the same thing
- email, video calling, file transfer and messaging are **other services** that also run on the internet
- a **search engine** finds pages, and a **browser** displays them, which are again two different tools