



Word Aware

Anchor:
System
Input
Output
Explore

Goldilocks:
Protocol
Packet
Collaboration

Step On:
Process
IP Address
Reuse

Previous knowledge

Information technology (IT) includes computers and things that work with computers.
You should also know that computers have Input, Process and Output (IPO) components.
Understand the importance of using the internet safely.

Computing Knowledge Organiser Year 5: Computing Systems and Networks: Systems and Searching

Systems

Systems are a set of things working together as parts of a whole.

Computer Systems

Computer systems are made up of inputs (something that sends a message to the device), processes (the way the device acts on the message) and outputs (something that is sent out by the device). Some examples include washing machines, DVD Player, and Smart Locker.

Key Knowledge – what I need to know

Transferring Information

Protocols and Packets: Protocols are an agreed way of doing something. When we communicate, we use an agreed set of protocols (greeting, speaking, listening, etc.).

In computing, agreed protocols are the way that computers communicate with one another.

The digital information they send is called a 'packet.'

IP Addresses: Computers and their users are not always in the same place as one another.

With billions of computers around the world, computers need to send the information to the correct place.

To do this, computers use special addresses called IP addresses.

They may look like this:



Working Together

Collaborating is another word for working together on something, to reach a shared goal.

The internet can be used to help people collaborate online, even when they are a long distance apart!

'Chat' functions can be used keep each other updated with new information.

Shared 'cloud' spaces and online drives can allow one or more person to have access to/ edit documents. -When building upon someone else's work, you need

Washing Machine: **Input:** Dials and buttons. **Process:** The computer inside follows a program. **Output:** The clothes are washed and the display shows the remaining time.



DVD Player: **Input:** The disc is inserted and play is pressed on the remote. **Process:** The system reads the information on the disc **Output:** The screen displays the movie/show.



Smart Locker: **Input:** The customer scans in a barcode. **Process:** The code is recognised by the system. **Output:** The correct locker is opened.

