



# Computing Knowledge Organiser

Year 5 ★ Computing Systems and Networks ★



Key Vocabulary

## Systems

-Systems are a set of things working together as parts of a whole.  
-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). Below are some examples.

## Important Vocabulary

System

Input

Process

Output

Protocol

IP Address (Internet Protocol)

Packet

Collaboration

### 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.



Smart lockers are used in the UK and other countries a bit like our Post Office Post Boxes. Amazon sends your shopping to the locker for you to pick up when you choose.



You should know that:

- Information technology (I.T.) includes computers and things that work with computers
- Computers have Input, Process and Output (IPO) components.
- Computer systems can communicate with other devices

## 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:

From: 216. 58. 1. 214

To: 216. 64. 1. 20

My IP Address  
63.255.173.183



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## 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 to be aware of copyright and intellectual property rules.

