

Kemnal Technology College – Computer Science Kemnal Key – Year 11 Term 3

Computers can be **stand alone** or connected to a network. A stand-alone computer has no access to the Internet or a network.

There are two types of network: LAN (**Local Area Network**) and WAN (**Wide Area Network**). A WAN connects LANs together to form larger networks. The Internet is the world's largest WAN.



Networks

A network is two or more computers - or other electronic devices - that are connected together for the purpose of communication.

They are connected by a wired medium such as cables, or by a wireless medium such as Wi-Fi.



A typical school network contains many computers. It may include desktop computers, laptops and other devices such as tablets and smartphones.



Domain Name System

The Domain Name System is made up of domain names

- A domain name is a name used to refer to an IP address
- Google.co.uk is an example of a domain name

A DNS server translates a web address into an IP address. For example, google.com translates to 216.58.204.35.



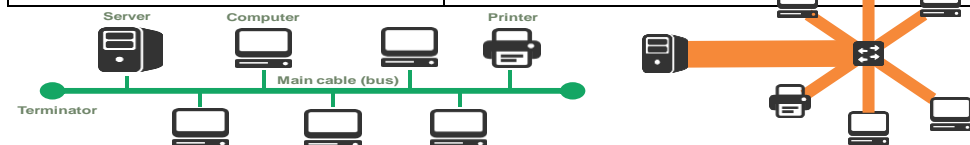
LANs are local and located within one location such as a building

WANs connect networks at remote locations via leased lines

KEMNAL KEY QUESTIONS

1. Explain TWO differences between a LAN and a WAN?
2. What hardware is used to connect the computers and devices to the network?
3. State at least five services that a networked computer has that couldn't be possible with a standalone computer.
4. Name **one** item of networking equipment that will be present in all devices to allow them to connect wirelessly to the network.
5. Some of the devices are running slowly on the network. Why might this be the case?

| Advantages of networks | Disadvantages of networks |
|---|---|
| Computers can share resources such as printers | Purchasing the network hardware is expensive |
| Files can be accessed through any computer in the network | Managing a large network is complicated |
| Data is easy to back up as it is stored centrally on the server | Viruses may be able to infiltrate the network and infect every computer |



It is your responsibility to make sure you regularly revisit this knowledge outside of class.