Put today's Date (<u>04/04/2022</u>) and the title **'Protocols'** in your books

And put today's key words in your keyword box:

## **Tier 2: Transfer** Move from one place to another **Tier 3: Protocol** A set of rules governing the exchange or transmission of data between devices.

### Learning Intention

#### Secure an understanding by: Understanding what a protocol is

## Further develop an understanding by:

Explaining the importance of creating networking standards (protocols)

### Achieve excellence by:

Make connections to real life by giving examples of network protocols

# **Networking standards**

#### Networking standards are

rules that allow computer systems to communicate across networks.

Networking standards exist to ensure products of different manufacturers are able to work together in a network without risk of incompatibility. Secure an understanding by: Understanding what a protocol is

### It is important to have networking standards as...

Products and services from different vendors and across countries **would not** work together. This includes security as well as hardware, protocols, software and transportation of data.

Write that down!



# Protocols

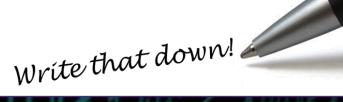


## What is a protocol?

Secure an understanding by: Understanding what a protocol is

#### A protocol is a set of rules

- A set of rules that determine how data is transmitted between different network devices.
- Network protocols are vital to allow computers on networks to communicate. Without shared common protocols, computers would not be able to communicate.
   –WJEC



# Protocols

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## These rules can include the following:

- Handshaking, where two devices establish their readiness to communicate
- How the sending device will indicate that it has finished sending a message
- How the receiving device will indicate that it has received a message
- The type of error checking to be used
- Agreement on the data compression method to be used

Secure an understanding by: Understanding what a protocol is *Further develop an understanding by:* Explaining the importance of why protocols are used

# Task 2 - protocols

#### Write a good description of the following protocols:

- HTTP allows webpages to be shared over internet
- HTTPS secure version of HTTP works together with another protocol, SSL (Secure Sockets Layer), to transport data securely.
- **SMTP** deliver emails
- FTP transfers large files
- TCP allows packets to be sent and received
- IP sets out the format of the packets and an addressing system
- Ethernet rules for using a wired connection
- Wi-Fi (802.11) wireless

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Secure an understanding by: Understanding what a protocol is

Further develop an understanding by: Explaining the importance of why protocols are used

#### Achieve excellence by:

Make connections to real life by giving examples of network protocols