

Put today's Date (04/04/2022) 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!



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*

Write that down!



Protocols

S.P.I.R.I.T

✓ Innovation I3

Understand how this lesson links to real life

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

Write that down!



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

S.P.I.R.I.T

✓ Innovation I3

Understand how this lesson links to real life

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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