# Internet and Network Protocols

Using the given notes and your own research, complete the following assignment to aid in your research and reading.

Create a presentation on Internet and network protocols with the following sections covered

**Section 1: Understanding the Internet and the Web**

**Reading:** Review the definitions of the Internet and World Wide Web.

**Compare and contrast**: Create a slide explaining the difference between the internet and the World Wide Web

**Research:** Who invented the Internet and who invented the Web? What motivated them?

**Questions**

* What are some uses of the Internet apart from the Web?
* What is meant by the "Internet of Things (IoT)"?

**Section 02: Clients, Servers, and Web Browsing**

* **Diagram Task:** Find an image that shows the journey of a web request from your browser to a server and back.
* **Scenario:** Describe step-by-step what happens when you visit [www.example.com](http://www.example.com).

**Section 3: Network Types and Topologies**

* **Comparison Chart:** Create a table comparing PAN, LAN, and WAN.
* **Sketch Topologies:** Find images of Star and Mesh topologies and label their advantages/disadvantages.

**Questions**

* What are key differences between Peer-to-Peer and Client-Server networks?
* Which topology would you recommend for a school network and why?

**Section 04: Communication Protocols**

**Activities**

* **Research Task:** Find and list real-world examples where HTTPS is crucial. Identify why https is crucial in each.
* **Worksheet:** Match protocols (HTTP, TCP, IP, WiFi) to their TCP/IP layer.

**Questions**

* What does HTTPS add to HTTP?
* Why is TCP important when sending data?

**Section 05: IP Addresses and DNS**

**Activities**

* **Find an IP:** Use an IP checker tool to find the IP address of a favorite website.
* **True or False:** Create 5 true/false questions about IP addresses and DNS.

**Questions**

* What’s the difference between Static and Dynamic IP addresses?
* Why was IPv6 introduced?

**Section 06: Internet Hardware Components**

**Activities**

* **Label Diagram:** Draw a simple network showing routers and switches. You can use <https://excalidraw.com/> to create the diagram
* **Comparison Table:** List differences between Copper and Fibre cables.

**Questions**

* Why is Fibre Optic preferred over Copper?
* What is the role of a router?

**Section 07: Cloud Computing**

**Activities**

* **Pros vs Cons Chart:** List benefits and risks of cloud computing.
* **Research:** Identify three cloud storage providers and their services.

**Questions**

* Why might businesses choose cloud computing?
* What are the security risks of cloud storage?