Internet essentials

# Questions .

**Question one**

Briefly describe the internet.

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**Question two**

IP stands for internet protocol. It is a suite of protocols used to ensure that data arrives at the correct destination. In networking terms, what is a protocol?

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**Question three**

An IP address is a unique address given to every device on a network. The IP suite of protocols determines the rules for how an IP address is created and used. Why does every device on a network need a unique address?

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**Question four**

ARPA made the move from a centralised to a distributed network to try to evade the threat of a nuclear attack. Which of the statements below describes a centralised network and which one describes a distributed network (tick the correct box)?

| **Description** | **Centralised (✔)** | **Distributed (✔)** |
| --- | --- | --- |
| Data and resources are shared through multiple locations and paths throughout the network. |  |  |
| All data and resources are connected through a single location. |  |  |

# Explorer task .

IP addresses are assigned to each device on a network. Some IP addresses are static. A static IP means that when a device is connected to a network, an IP address is manually assigned. This address then typically remains with that device until it is removed or ‘decommissioned’ from the network. The IP address then needs to be manually removed from the network so that it can be used again for another device.

Another way to allocate IP addresses is through the dynamic host configuration protocol (DHCP). This is where an IP address is automatically assigned to a device when it joins the network. This dynamic address can change to suit the needs of the network. For example, when a device is removed from the network, the IP address is also automatically removed.

Use the internet to find an example of when a **static IP address** might be required. Write your findings below:

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