**Day 1 – Domain Names & IP Addresses**

**Warm-Up Activity**

1. Go to the web page: <https://centralops.net/co/>
2. Select the “NsLookup” tool and search for the following domains:
   1. [www.peelschools.org](http://www.peelschools.org)
   2. some of your favorite / popular domains
3. Try the “Traceroute” tool for the same domains
   1. What is the purpose of this tool?

It shows the IP address of the website.

1. Try the “Ping” tool for the same domains
   1. What is the purpose of this tool?

It shows the ping for the website.

1. Try the “Whois” tool for [www.peelschools.org](http://www.peelschools.org)
   1. Who is the owner of this domain?
   2. Who is the registrar of this domain?

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* 1. When does the registration expire?

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**Presentation Notes: Client-Server Model**

1. What is a client?
   1. Where does it run?

It runs on your phone or pc

* 1. What does it do?

It provides the interface

* 1. List some examples of a client.
* Word
* Powerpoint
* Spotify

1. What is a server?
   1. Where does it run?

It runs on hardware owned by the app company

* 1. What does it do?

It sends and receives data between multiple clients using internet connections.

* 1. List some examples of a server.

On-Line Games, Spotify, MLB At Bat

1. Explain why you need both a client and a server to complete an internet application?

Because one is useless without the other.

**Presentation Notes: Domain Names & IP Addresses**

1. What is a Domain Name?
   1. What is it used for?

It is an ID for a service on the internet

* 1. Is it for human or computer use?

Human use

* 1. Provide an example of a Domain Name.

www.peelschools.org

1. What is a IP Address?
   1. What does IP stand for?

Internet Protocol

* 1. What is it used for?

It is used to route messages and data between computers

* 1. Is it for human or computer use?

Computer use

* 1. Provide an example of an IP Address.

67.21.152.99

1. Who can register a domain name?

They can be registered by companies and individuals

1. Who controls domain names for countries (i.e. .CA, .UK, etc.)?

Government Agencies

1. Who controls domain names like .COM, .ORG, etc.?

Network Solutions

1. Who owns and controls IP Addresses?

Large internet companies

1. If you own a Domain Name does that mean you also own an IP Address?

yes

1. What services do *middleman* companies like GoDaddy.com provide?

They arrange domain registrations and provide you with an IP address

1. What are some issues and features related to IPv4?

Limited speed and Limited Number of Connections

1. What are some issues and features related to IPv6?

Higher Speed and Unlimited number of connections

1. What are some issues and features related to 5G Networks?

Leverages IPv6 technology to provide extreme speeds and every device has its own IP address