**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?
4. Try the “Ping” tool for the same domains
   1. What is the purpose of this tool?
5. 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?
   3. When does the registration expire?

**Presentation Notes: Client-Server Model**

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

App runs on your phone or PC

* 1. What does it do?

Provides an interface

* 1. List some examples of a client.

Chrome

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

Runs on hardware owned by app company

* 1. What does it do?

Sends & Receives data between multiple client using internet connections

* 1. List some examples of a server.

Website such as facebook.

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

Work together to complete application as one is useless without the other.

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

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

ID for a service on Internet

* 1. Is it for human or computer use?

Human use as it is human readable format

* 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?

ID number of a client or server device on the internet

* 1. Is it for human or computer use?

Computer use as written in numbers (Computer readable format)

* 1. Provide an example of an IP Address.

67.21.152.99

1. Who can register a domain name?

Companies or Individuals

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

Government Agencies control domain names.

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

Specialty domain names. US Domain names. Network solution controls .com domain name

1. Who owns and controls IP Addresses?

Owned by large internet companies.

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

No, IP address is in limited supply making it more difficult.

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

They provide both registration & IP address making g it a simple and easy experience.

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

Limited speeds & Limited number of connections.

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

Features are higher speeds & unlimited number of connections.

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

Features are every device will have its own IP address.

**Day 2 – Internet Services (Software)**

Questions t.b.d.