**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?
      1. It runs in your computer or any device mechanism.
   2. What does it do?
      1. The app provides the interface.
   3. List some examples of a client.
      1. An example is chrome, or Firefox and any other online game that could be run.
2. What is a server?
   1. Where does it run?
      1. Software that runs on hardware owned by the app company.
   2. What does it do?
      1. It sends and receives data between multiple clients using internet connections.
   3. List some examples of a server.
      1. An example of a server is World of Tanks has many different servers for different continents.
3. Explain why you need both a client and a server to complete an internet application?
   1. The client is responsible for running the input for the application and the commands run through the internet to get to the server for an internet application in order to run.

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

1. What is a Domain Name?
   1. What is it used for?
      1. An ID for a service on the internet.
   2. Is it for human or computer use?
      1. It is for use of humans in English.
   3. Provide an example of a Domain Name.
      1. www.youtube.com
2. What is a IP Address?
   1. What does IP stand for?
      1. IP stands for Internet Protocol.
   2. What is it used for?
      1. It is a ID number of a client or server device of the internet.
   3. Is it for human or computer use?
      1. This is for the use of computers.
   4. Provide an example of an IP Address.
      1. One IP address is 67.21.155.160
3. Who can register a domain name?
   1. Domain names can be registered by companies and individuals.
4. Who controls domain names for countries (i.e. .CA, .UK, etc.)?
   1. Government agencies control the registration of names, Canada – CIRA, UK – NOMINET, US – Network Solutions.
5. Who controls domain names like .COM, .ORG, etc.?
   1. Companies control domain names and are rented out for a fee.
6. Who owns and controls IP Addresses?
7. If you own a Domain Name does that mean you also own an IP Address?
8. What services do *middleman* companies like GoDaddy.com provide?
9. What are some issues and features related to IPv4?
10. What are some issues and features related to IPv6?
11. What are some issues and features related to 5G Networks?

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

Questions t.b.d.