**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 on your device
   2. What does it do?
      1. It provides the interface and doesn’t control much of the data
   3. List some examples of a client.
      1. Instagram
      2. chrome
2. What is a server?
   1. Where does it run?
      1. It runs on hardware stored by the company
   2. What does it do?
      1. It sends and receives data from multiple clients
   3. List some examples of a server
      1. Gmail
3. Explain why you need both a client and a server to complete an internet application?
   1. You need the clients to constantly use the app and make changes to the data that they are able to change and the server handles the data that the clients send

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

1. What is a Domain Name?
   1. What is it used for?
      1. It’s used to access the domain
   2. Is it for human or computer use?
      1. Its used for humans
   3. Provide an example of a Domain Name.
      1. [www.minecraft.net](http://www.minecraft.net)
2. What is a IP Address?
   1. What does IP stand for?
      1. Internet protocol
   2. What is it used for?
      1. It’s used to route messages and data between computers
   3. Is it for human or computer use?
      1. It is used for computers
   4. Provide an example of an IP Address.
      1. 1.192.0.91
3. Who can register a domain name?
   1. Any group, company, person or just anyone who knows how to
4. Who controls domain names for countries (i.e. .CA, .UK, etc.)?
   1. Government agencies control these domain names
5. Who controls domain names like .COM, .ORG, etc.?
   1. Companies that that are middle man register .com’s for you
6. Who owns and controls IP Addresses?
   1. Network solutions controls all the IP address
7. If you own a Domain Name does that mean you also own an IP Address?
   1. Yes you also own an IP address because your domain cannot run without your specific IP address
8. What services do *middleman* companies like GoDaddy.com provide?
   1. They provide deals and services that will help your domain for example they would provide you with an IP address and would host your domain
9. What are some issues and features related to IPv4?
   1. The IPV4 has limited speeds and has limited number of connections
   2. The IPV4 is 64 bits
10. What are some issues and features related to IPv6?
    1. The IPV6 is 128 bits and has unlimited number or connections as well as high speeds
11. What are some issues and features related to 5G Networks?
    1. Leverages IPV6 technology
    2. Every device would have an IP address

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

Questions t.b.d.