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

**Warm-Up Activity**

1. ~~Go to the web page:~~ [~~https://centralops.net/co/~~](https://centralops.net/co/)
2. Go to the web page: <https://mxtoolbox.com/DNSLookup.aspx>
3. 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
4. ~~Try the “Traceroute” tool for the same domains~~
   1. ~~What is the purpose of this tool?~~
5. ~~Try the “Ping” tool for the same domains~~
   1. ~~What is the purpose of this tool?~~
6. ~~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?

On your pc

* 1. What does it do?
  2. List some examples of a client.

Microsoft word

pc

1. What is a server?
   1. Where does it run?
   2. What does it do?
   3. List some examples of a server.
2. Explain why you need both a client and a server to complete an internet application?

Server saves data of everything related to it. (hp ,stats ,material, of other players)

Client brings information to user (your character)

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

1. What is a Domain Name? an id for a service on the internet
   1. What is it used for? Human readable contant
   2. Is it for human or computer use? human
   3. Provide an example of a Domain Name. youtube.com
2. What is a IP Address?
   1. What does IP stand for? Used to route messages and data between computers
   2. What is it used for? Domains verification ( not everything has a domain name )
   3. Is it for human or computer use? computer
   4. Provide an example of an IP Address. 67.21.152.99
3. Who can register a domain name?

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.?

Country

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?

no

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

addresses

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

Limited speed

2^64 combinations

Limited number of connections

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

2^128

Higher speed

Unlimited number of connections

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

Leverages IPv6 technology to provide extreme speeds

Every device will have its own IP address

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

Questions t.b.d.