AP Computer Science Principles

*Assignment –Introduction to the Internet: Big Questions, Read/Think/Conjecture/Share*

Algorithm:

Read the information below, doing what you are asked. If you are unsure what to do, ask your teacher.

In the coming days we are going to look at some technical aspects of the Internet—the solution to the problem of having approximately 10 billion computers communicating at the same time.

To begin, let's consider some questions that will put you in the "right frame of mind" for our imminent study!

Let’s activate some prior knowledge.

1. When you enter a URL in a web browser and hit [enter], what happens? At some point, you see the web page in the browser window, but what happens in between? What are all the steps? Write down the series of things that you think (or have heard) happen right after you hit [enter]. What happens first, second, third, etc. Don’t worry if you don’t know all the pieces or how they all fit together. If you don’t know a step, or you are fuzzy on some details, or there’s a gap, that’s okay. Just write down the parts that you think you know.

Clearly this is a BIG question that I’ve just asked you to consider!

Here are some more questions to make you think about relevant ideas. Read and respond to as many as interest you (no minimum; respond to as many of the 13 as you'd like).

Remember that this is about THINKING, not answering correctly!

1. How does a web page come back to you and not someone else?
2. Is a web page one big message or multiple messages?
3. How does a website remember who you are?
4. What happens if a cable gets cut? Does the Internet fix itself?

1. Who is in charge of the Internet?
2. Who pays for the Internet?
3. Where/how might someone spy on you while you use the Internet?
4. Who controls what you are allowed to see on the Internet?
5. If a government wanted to restrict access to the Internet, how would they do it?
6. Who can see your Internet activity and how might that happen?
7. Are there parts of the Internet you’re not allowed to see?
8. Where/how would a hacker steal your identity?
9. What exactly is being attacked during a cyberattack?

Metacognition...

1. What did you learn because of completing this assignment? What are you now wondering about?