

IB/AP Computer Science Summer Assignment 2017-2018

Part 1: The Internet

- 1.) Sign up at [khanacademy.org](https://www.khanacademy.org) (you may login with your school gmail or create a personal account)
- 2.) Visit <https://www.khanacademy.org/coaches>
- 3.) There, in the "Add a coach" field, enter the class code **W2CXUB** (for Mendham) and **P6NMKN** (for Central)
- 4.) Visit the following site
<https://www.khanacademy.org/computing/computer-science/internet-intro>
- 5.) Watch all of the videos (they are interesting!).
- 6.) Define the following terms in your own words:
1) HTTP, 2) Protocols, 3) secure sockets layer/transport layer security, 4) cybersecurity, 5) Distributed denial-of-service, 6) Phishing, 7) Viruses, 8) Cryptography, 9) Encryption, 10) Public key encryption, 11) digital certificates, 12) certificate authorities, 13) Internet protocol (IP) address, 14) domain name system, 15) bandwidth, 16) packet switching, 17) latency, 18) transmission control protocol

Give examples where applicable!

Part 2: Introduction to Programming

- 1.) Log on to code.org and create an account using your school email.
- 2.) If you click on "learn" (at the top) and scroll to the bottom of the page, there should a link to "add a teacher." Enter the code: LRGSKH (for Mendham) or JFKKNB (for Central). This will enter you into my class so I can track your progress.
- 3.) Be sure you are completing the "20 Hour Accelerated Intro to CS Course" **

**If you have had me for Coding/Game Design, you have done this before, or feel like it is too easy, you may complete this instead:

- 1.) Visit <https://www.codecademy.com/learn/learn-java>
- 2.) Create an account (or log in with your school email)
- 3.) Complete the entire "Learn Java Course"

The completion of this assignment will be graded during the first week of school.