AP COMPUTER SCIENCE PRINCIPLES

Summer Assignments 2017

Welcome to
AP Computer Science Principles!

Dear Future AP Computer Science Principles Student:

Welcome to AP CSP! I am anticipating a great year of Computer Science Principles and College Board's newest AP exam!

In order to ensure the best start for everyone next year and to give us more time with the programming tasks, you will have to complete work this summer.
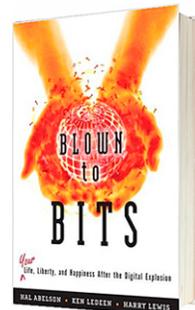
Technology has transformed our lives in so many ways. Mobile computing is challenging us to come to terms with new norms about privacy, security, the ownership or openness of data and information, and other issues. Like any technology, mobile computing has both positive and negative impacts.

We need to reflect on the impact of technology on society and we also think about the impact we will create as we build our own programs!

We will read the book: Blown to Bits — Your Life, Liberty, and Happiness after the Digital Explosion

The book is available on Amazon.com or for **FREE** at:
http://www.bitsbook.com/wp-content/uploads/2008/12/B2B_3.pdf

YOU ONLY NEED TO READ CHAPTERS 1—6 (see assignment attached)*

- **Part 1)** Explore: The attached vocabulary list (find definitions YOU understand)

- **Part 2)** Read: The attached double entry journal sheet for each Chapter 1--6.

- **Part 3)** Create: Code.org Accelerated Intro to Computer Science Course

*Note that throughout the year, you will be given quizzes on the vocabulary and other content from this book and from code.org. In addition, your midterm will include a significant amount of material from this book.

I HIGHLY recommend that you spread out the reading and practice over the summer. Please do not try to complete it all in the first week of August. CSP takes time to process and grasp at a level necessary for success in AP CSP. Remember, AP CSP is a college level course. Taking a college level course in high school is difficult, requires dedication, and is a great investment in your education so prepare yourself and arrive ready to learn. Have a great summer!

Ms. Linda Hahn
Secondary Technology Teacher
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"Blown to Bits" Assignment:

Part 1: Define the following as you read:

(Note: The submission must be in a MS Word or PDF document)

Chapter 1:
- bit
- blacklist
- character
- cyberspace
- data
- intellectual property
- Moore's Law
- social networking whitelist

Chapter 2:
- database
- data aggregation
- data mining
- data repository
- data sources
- metadata
- query
- Encryption
- IP address

Chapter 3:
- algorithm
- analog
- cloud computing
- cryptography
- digital
- lossless compression
- lossy compression
- spam

Chapter 4:
- binary
- bot
- cache
- firewall
- foreground
- HTML
- URL

Chapter 5:
- decryption
- encryption

Chapter 6:
- gigabyte
- DRAM
- DRM

"Blown to Bits" Assignment:

Part 2: Journal Entries:

Directions: As you read, write down four ideas from EACH chapter that you believe are critically important to this topic. You can quote the authors or summarize them. Include the page number. Then write your reaction to the idea.

You may follow this sample format in a table below or you can list the items in a document. (Note: The submission must be in a MS Word or PDF document)

Chapter Number:
The Text (Quote or Summary) & Page #:
My Reaction to the Text:

Part 3: Code.org

- Create an account with code.org under Ms. Hahn's APCSP Account: (http://studio.code.org/join/XYGDZN)
- Complete the Accelerated Course 20 hours (Accelerated Intro to CS Course)
- Direct Link: https://studio.code.org/s/20-hour (accelerated CS course)

Additionally, Review the following:

AP CSP Course Description, Exam Overview and Course Overview: https://apstudent.collegeboard.org/apcourse/ap-computer-science-principles *(Sample Activities Listed)*

Your AP Computer Science final exam is unlike those of many other AP courses. That exams consist of:

      a. Explore Performance Task
      b. Create Performance Task
      c. Multiple Choice test

The two Performance tasks will be uploaded to a Digital Portfolio web page during the AP testing period in the Spring.

TKA Guidelines for Summer Work:

- AP CSP work is due the first day we return. In an AP or honor's level class, this expectation is mandatory and a student that fails to meet this expectation will be withdrawn.

- New students who enroll in the class in August, will be given two weekends to complete the assignment. Failure to do so will result in withdrawal from the class.

- Feel free to contact Ms. Hahn via email or cell phone (see me for that) over the summer for additional support in completing the tasks.