AP Computer Science Principles Summer Assignment 2026-2027

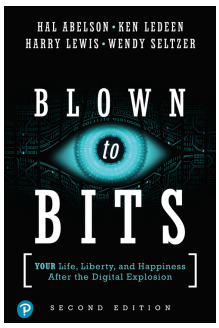
I am very excited that you are taking this course, and I am looking forward to getting to know each and every one of you. AP Computer Science Principles is an introductory college-level computing course. Students cultivate their understanding of computer science through working with data, collaborating to solve problems, and developing computer programs as they explore concepts like creativity, abstraction, data and information, algorithms, programming, the internet, and the global impact of computing. We will spend a lot of time preparing for the AP exam, and you will be taking the exam sometime during the first two full weeks of May 2026.

In order to ensure the best start for everyone next year, you will have to complete work this summer. The **two** assignments are due on the first day of school. It will count as your first quiz.

Computer and computing technologies have created what is sometimes referred to as a "digital explosion". With the growing development of computing technologies, more and more digital data is being produced at a pace so rapid that it almost seems to be feeding off itself. This concept raises some serious questions. Some of this data is public. Some of it is private, or at least we like to think it is. Where do we draw the line? Alternatively, could one be drawn? Who ultimately "owns" the data and the information that can be drawn from it? What are the security and privacy issues involving the data? These issues have an impact on all of our lives. Some of the impacts are beneficial, and yet some of them can be harmful. We will reflect on these concepts and issues throughout this class.

Assignment #1: Blown to Bits (20 pts)

One way we will be addressing these issues in the course is by reading and discussing the book **Blown to Bits: Your Life, Liberty, and Happiness After the Digital Explosion.** This book is available without charge online. You can access the website by clicking the image below and download the file in pdf format or by typing https://www.bitsbook.com/wp-content/uploads/2021/08/9780137441075-Blown-to-Bits-2e.pdf in your browser address bar.



1. You will need to read Chapters 1-3 and answer the questions, while reading you will also need to fill out the vocabulary list.
2. For each of the three chapters:
    a. Write a definition for each word in the associated vocabulary list (find definitions YOU understand, don't get lazy and just write what you think it means. If you look it up make sure it matches what you are reading.)

Vocabulary		
Chapter 1	**Chapter 2**	**Chapter 3**
Bit Blacklist Character Cyberspace Data center Data Data network Disk drive Intellectual property Moore's Law Network processor Social networking whitelist	Ad hoc Database Data aggregation Data mining Data repository Data sources Digital detritus Dossier EDR Encode Encryption IP address Metadata Query RFID	Algorithm Analog ASCII Cloud computing Cryptography Digital Digital signal Processing Download Lossless compression Lossy compression Megabyte Megapixels Modeling OCR Pixels Raster Render Spam

b. Write three responses in the associated double entry journal sheet for each chapter.
Notes: (a) if the chapter has multiple sections, you must NOT have two responses to a quote, phrase, or summary from the **same section**.
(b) If the chapter does not have enough separate sections, you must NOT have two responses to a quote, phrase or summary from the **same concept.**
For each chapter, as you read, in the left column, write three ideas as per the instructions in the notes that you believe are critically important to the topic. You can quote the authors or summarize them. Include the page number. Then, in the right column write your reaction/thoughts to the idea.

Chapter 1: Digital Explosion: Why Is It Happening, and What Is At Stake?		
	Quotation/Phrase/Summary	My Thoughts
1		
2		
3		

Chapter 2: Naked in the Sunlight: Privacy Lost, Privacy Abandoned		
	Quotation/Phrase/Summary	My Thoughts
1		

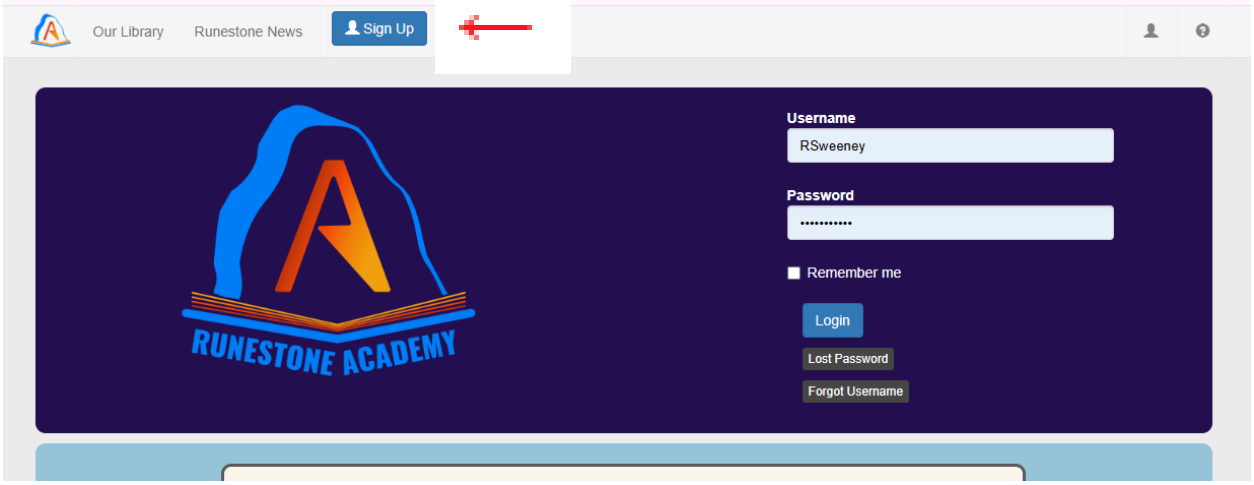
2		
3		

Chapter 3: Ghosts in the Machine, Secrets and Surprises of Electronic Documents		
	Quotation/Phrase/Summary	My Thoughts
1		
2		
3		

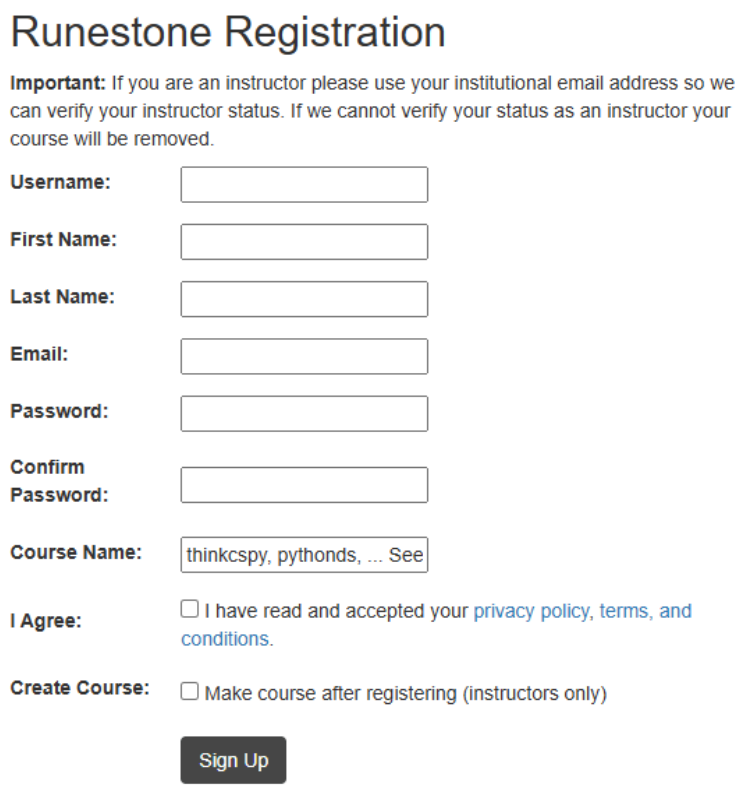
Assignment #2 runestone.academy.com

You will need to sign up for the interactive textbook “How to Think Like a Computer Scientist”

1. Follow this link https://runestone.academy/user/login?_next=/ to sign up for our class.
2. When you get to this page click the Sign Up button at the top left of the page.



3. After you click the sign up button you will be directed to this page. You will need to create your own user name. I suggest using your email address **without** the @goirish.com
4. Fill out the rest of the form with your name and school email.
5. Type in, or copy the following name, the Course name of
   springfieldcatholichighschool_thinkcspy_fall26
6. Click the I agree
7. DO NOT Create Course:
8. Click Sign Up.



9. Once you are in the course, you will need:
    a. to read Chapter 1 General Introduction
    b. Answer each of the questions in each of the sections
10. There will be a quiz over this chapter on the first day of school.

I highly recommend that you **spread** out the 2 assignments over the summer. Pace yourself. Please do not try to complete it all in the first week of August. AP CS-Principles concepts take time to process and grasp at a level necessary for success in this class. Remember, AP Computer Science Principles is a college level course. Taking a college level course in high school is not to be taken lightly. It requires dedication, and is a great investment in your education so prepare yourself and arrive ready to learn.

Have a great summer and enjoy AP Computer Science Principles.

Mrs. Sweeney