

# AP CSA Summer Assignment:

Dear APCSA student!

Welcome to AP Computer Science A (APCSA) AP CS A introduces students to the foundational concepts of computer science. The course will cultivate your understanding of coding through analyzing, writing, and testing code as you explore concepts like modularity, variables and control structures. This course emphasizes object-oriented programming and design using the Java programming language.

These are the following units we will be covering in this course, if you would like to take the time to dive deeper here is the link to the [Collegeboard](#) Description of the APCSA Curriculum/Exam.

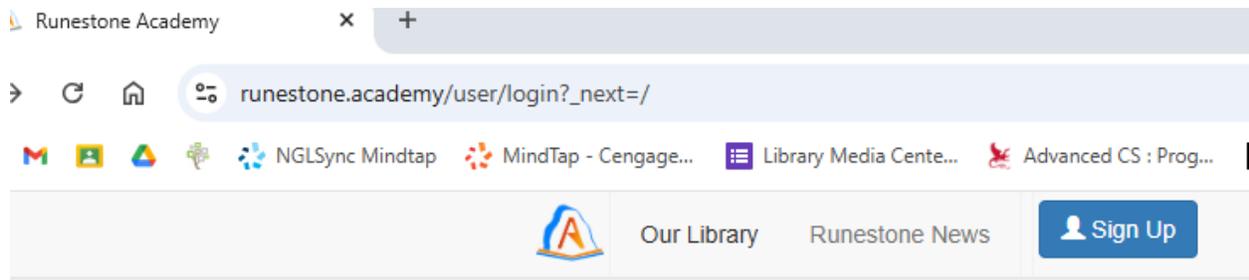
Units	Exam Weighting
<b>Unit 1:</b> Primitive Types	<b>2.5–5%</b>
<b>Unit 2:</b> Using Objects	<b>5–7.5%</b>
<b>Unit 3:</b> Boolean Expressions and if Statements	<b>15–17.5%</b>
<b>Unit 4:</b> Iteration	<b>17.5–22.5%</b>
<b>Unit 5:</b> Writing Classes	<b>5–7.5%</b>
<b>Unit 6:</b> Array	<b>10–15%</b>
<b>Unit 7:</b> ArrayList	<b>2.5–7.5%</b>
<b>Unit 8:</b> 2D Array	<b>7.5–10%</b>
<b>Unit 9:</b> Inheritance	<b>5–10%</b>
<b>Unit 10:</b> Recursion	<b>5–7.5%</b>

I am looking forward to working with you this coming year.  
Please feel free to reach out with any questions!.

Sincerely,  
Mrs. Sweeney

## Assignment 1: Create a login account for your textbook “AP CSAwesome”

1. [Link to Register](#): Click Log In, then click Sign Up.
  - Choose a username that you can remember but has nothing to do with your real identity.
  - Use your school email.
  - The Course name is **springfieldcatholichighschool\_csawesome\_fall2025**
  - Check the I have read and accepted your privacy policy, terms and conditions.
  - **Do not** create course.
  - Click Sign Up



### Runestone Registration

**Important:** If you are an instructor please use your institutional email address so we can verify your instructor status. If we cannot verify your status as an instructor your course will be removed.

Username:

First Name:

Last Name:

Email:

Password:

Confirm Password:

Course Name:

I Agree:  I have read and accepted your [privacy policy, terms, and conditions](#).

Create Course:  Make course after registering (instructors only)

## Assignment 3:

1. Access the first unit of our textbook, **CS Awesome**, read **Unit 1** and answer all questions, exercises, mixed-up programs, programming challenges, and watch all videos.
2. Below is the outline of the unit, the entire unit must be completed. **The first two classes will be dedicated to practicing and reviewing this unit. The third class will be a unit 1 exam.**

- [1.1. Getting Started](#)
  - [1.1.1. Preface](#)
  - [1.1.2. About the AP CSA Exam](#)
  - [1.1.3. Transitioning from AP CSP to AP CSA](#)
  - [1.1.4. Java Development Environments](#)
    - [1.1.4.1. Replit \(Online IDE\)](#)
    - [1.1.4.2. Github Classroom and Codespaces](#)
    - [1.1.4.3. VSCode](#)
    - [1.1.4.4. Dr. Java](#)
    - [1.1.4.5. BlueJ](#)
    - [1.1.4.6. IGRASP](#)
    - [1.1.4.7. IntelliJ](#)
    - [1.1.4.8. Netbeans](#)
    - [1.1.4.9. Eclipse](#)
  - [1.1.5. Growth Mindset and Pair Programming](#)
    - [1.1.5.1. Growth Mindset](#)
    - [1.1.5.2. Pair Programming](#)
  - [1.1.6. Pretest for the AP CSA Exam](#)
  - [1.1.7. Survey](#)
    - [1.1.7.1. Sisters Rise Up](#)
    - [1.1.7.2. Survey](#)
- [1.2. Why Programming? Why Java?](#)
  - [1.2.1. First Java Program](#)
  - [1.2.2. Print Methods](#)
  - [1.2.3. Syntax Errors and Debugging](#)
  - [1.2.4. Reading Error Messages](#)
  - [1.2.5. Comments](#)
  - [1.2.6. Debugging Challenge](#)
  - [1.2.7. Summary](#)
  - [1.2.8. AP Practice](#)
- [1.3. Variables and Data Types](#)
  - [1.3.1. What is a Variable?](#)
  - [1.3.2. Data Types](#)
  - [1.3.3. Declaring Variables in Java](#)
  - [1.3.4. Naming Variables](#)
  - [1.3.5. Debugging Challenge : Weather Report](#)
  - [1.3.6. Summary](#)
  - [1.3.7. AP Practice](#)
- [1.4. Expressions and Assignment Statements](#)
  - [1.4.1. Assignment Statements](#)
  - [1.4.2. Adding 1 to a Variable](#)
  - [1.4.3. Input with Variables](#)
  - [1.4.4. Operators](#)
  - [1.4.5. The Remainder Operator](#)
  - [1.4.6. Programming Challenge : Dog Years](#)
  - [1.4.7. Summary](#)
  - [1.4.8. AP Practice](#)
- [1.5. Compound Assignment Operators](#)
  - [1.5.1. Code Tracing Challenge and Operators Maze](#)
  - [1.5.2. Summary](#)
- [1.6. Casting and Ranges of Values](#)
  - [1.6.1. Programming Challenge : Average 3 Numbers](#)
  - [1.6.2. Bonus Challenge : Unicode](#)
  - [1.6.3. Summary](#)
- [1.7. Unit 1 Summary](#)
  - [1.7.1. Concept Summary](#)
  - [1.7.2. Java Keyword Summary](#)
  - [1.7.3. Vocabulary Practice](#)
  - [1.7.4. Common Mistakes](#)
- [1.8. Mixed Up Code Practice](#)
- [1.9. Toggle Mixed Up or Write Code Practice](#)
- [1.10. Coding Practice](#)
- [1.11. Multiple Choice Exercises](#)