

AP Computer Science A Summer Assignment – 2020

Welcome to AP Computer Science A!

In the Python course, you learned the concepts of data types, assignment statements, conditionals, loops, and basic data structures. This course will extend those concepts, teach the new syntax in **Java**, and bring you beyond procedural programming into object-oriented programming.



The College Board program is extensive and covers ten units of material. To start off quickly, you are expected to complete these two assignments prior to the first full day of class. **DATE HERE**

Part 1: Unit 1 Lesson 1 and Lesson 2 - NITRO

- Join CodeHS – link in Google classroom with code **XXXXX** and your **HHS Email**
- Complete Unit 1 Lesson 1 – a welcome video (less than 10 min) that you can run at 1.5 speed.
- Complete Unit 1 Lesson 2, a 4 min video (Console Output) and 5 very short exercises. This should take less than one hour. I will be reading your responses so be sure to answer the questions.
- **Graded: HW grade** for successful completion of the exercises. (You may send me email questions if you are struggling with the assignments).

Part 2: Algorithm Readiness – Karel the Dog – Lessons 1 – 15 and 17 (Challenge lesson 16 is optional)

- Supplemental unit in CodeHS – NITRO (It is on the bottom of the course content after Unit 10 Recursion in the area called Supplemental Materials).
- Please review lessons 1-15 with careful attention to general topics in lessons 6, 7, 14, and 15. While you do NOT need to complete ALL the exercises, you must be comfortable with the topics and basic syntax. (You may send me email questions if you are struggling with the assignments).
- **Graded: 25 question quiz** labelled lesson 17.

1	INTRODUCTION TO PROGRAMMING WITH KA...	9	FOR LOOPS
2	MORE BASIC KAREL	10	WHILE LOOPS IN KAREL
3	JAVA PROGRAMS AND THE RUN METHOD	11	IF STATEMENTS
4	KAREL CAN'T TURN RIGHT	12	IF/ELSE STATEMENTS
5	METHODS IN KAREL	13	CONTROL STRUCTURES EXAMPLE
6	TOP DOWN DESIGN AND DECOMPOSITION IN .	14	MORE KAREL EXAMPLES AND TESTING
7	COMMENTING YOUR CODE	15	HOW TO INDENT YOUR CODE
8	SUPER KAREL	16	KAREL CHALLENGES OPTIONAL
		17	UNIT 1 QUIZ GRADED