

AP® Computer Science Principles Summer Assignment 2019

Welcome to AP CSP! I am eagerly anticipating a great year of Computer Science Principles to ensure the best start for everyone next year; I have prepared a summer assignment that reviews basic CSP concepts. I recommend that you spread out the summer assignment. Please do not try to complete it all in the final week of the summer. 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.

A list of information about the class can be found by visiting the College Boards website (<https://apstudent.collegeboard.org/apcourse/ap-computer-science-principles>).

Completed work must be done by August 5th; late work will not be accepted.

Suggested Reading book


“Understanding the Digital World: What You Need to Know about Computers, the Internet, Privacy, and Security by Brian W. Kernighan ”.

Have a wonderful summer!




























































































You may contact me by email: aerdem@fultonscienceacademy.org

1- Create an account on CodeHS.com, you should sign up the course at <https://codehs.com/go/8447B>

Please finish the following lessons.

1. INTRODUCTION TO PROGRAMMING WITH KAREL THE DOG16 LESSONS

Hide Lessons

1	INTRODUCTION TO PROGRAMMING WITH KAR...	     
2	MORE BASIC KAREL	     
3	KAREL CAN'T TURN RIGHT	     
4	FUNCTIONS IN KAREL	     
5	THE START FUNCTION	    
6	TOP DOWN DESIGN AND DECOMPOSITION IN ...	    
7	COMMENTING YOUR CODE	    
8	SUPER KAREL	     
9	FOR LOOPS	     
10	IF STATEMENTS	    
11	IF/ELSE STATEMENTS	     
12	WHILE LOOPS IN KAREL	     
13	CONTROL STRUCTURES EXAMPLE	    
14	MORE KAREL EXAMPLES AND TESTING	    
15	HOW TO INDENT YOUR CODE	     
16	KAREL CHALLENGES	      




4. DIGITAL INFORMATION



7 LESSONS



Hide Lessons


-
- 1 GETTING STARTED     

 - 2 NUMBER SYSTEMS       

 - 3 ENCODING TEXT WITH BINARY        

 - 4 PIXEL IMAGES        

 - 5 HEXADECIMAL    





 - 6 PIXEL COLORS!        













5. THE INTERNET







9 LESSONS






Hide Lessons







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- 1 GETTING STARTED    

 - 2 INTERNET HARDWARE    

 - 3 INTERNET ADDRESSES      

 - 4 DNS      

 - 5 ROUTING     

 - 6 PACKETS AND PROTOCOLS      

 - 7 THE IMPACT OF THE INTERNET 