

For All students taking the AP Computer Science Class except students who already took CSII Honors

## AP Computer Science Summer Work Mrs. Boutemine

Congratulations on your choice of AP Computer Science for the 2019-2020 academic year. In this course, you will continue to learn the fundamentals of computer programming using the Java programming language and by doing well on the AP exam you may earn college credit. This course will prepare you for further study of computer programming, and is the first step in preparing for a career in software engineering or information management. The skills you learn will also be useful in other technical fields, such as science and engineering, and will help you to think more logically. The course is going to be very quick-paced, since it serves as both a continuation of Object Oriented Programming and an attempt to get college credit in the subject. Since timing is critical, please follow the instructions in this packet to prepare for next year.

### What To Do

You will install a working Java development environment on your home computer, and create a very simple program (we will be using JGrasp in class). By doing so, you will accomplish the following goals:

- 1) Have a working environment at home to support your class work next year
- 2) Become familiar with the process of creating and running a Java program
- 3) Become familiar with the program used to develop Java programs
- 4) Make sure that your environment works properly.

### Guidelines:

- 1) Download and install Java.
  - a. Browse to <http://www.oracle.com/technetwork/java/javase/downloads/index.html>
  - b. Scroll down and click on the button marked Download JDK.
  - c. Install (follow provided directions).
- 2) Download and install **JGrasp** (<http://www.jgrasp.org>)
- 3) Enter the following into the newly created file. Save and Run:

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```
public class Hello
{
    public static void main (String args[])
    {
        System.out.println ("Hello, world!");
    }
}
```

Congratulations! (Your screen should display Hello, world!)

Finally (Vocabulary), define the following and give an example of how it is used in a program (if applicable). Due date is your first day of school.

1. Program execution
2. Compiler
3. JVM
4. IDE
5. Bit
6. Byte
7. Compile-time error
8. Run-time error/logic error
9. CPU
10. RAM
11. GUI
12. Java

The following words are Java related:

13. Class
14. Method
15. Interface
16. Pre-condition
17. Post-condition
18. Int
19. Boolean
20. Char
21. Const
22. Short
23. Double
24. Long
25. String
26. Array
27. ArrayList

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28. Scanner

29. Print

30. Println

31. =

32. ==

33. &&

34. ||

35. !

36. !=

37. ++

38. --

39. %

40. +=

41. -=

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# Learn Java 😊

Please use the following suggested websites to familiarize yourself with Java:

1. <https://www.cs.utexas.edu/~scottm/cs307/codingSamples.htm>
2. <http://codingbat.com/java>
3. <https://www.codecademy.com/learn/learn-java>
4. <http://javadevnotes.com/>
5. <http://www.dreamincode.net/forums/forum/32-java/>
6. <https://www.compilejava.net/> online IDE
7. <http://www.jgrasp.org/> IDE
8. <http://www.java-made-easy.com/>
9. <https://www.learnjavaonline.org/>