

As level - Computer Science Bridging Work

Week 1-Task 1 - Research: The components of a desktop PC

Expected time commitment: 2 hours

Evidence: Poster

List all the internal (eg; motherboard) and external (eg; monitor) components you will need to run a desktop PC. Include descriptions of the function and an image of each component. A3 looks better and you can fit more on.

Week 2-Task 2 - Skills: Programing Basics

Expected time commitment: 5 hours

Evidence: Print screen evidence of attempted exercises.

Complete the “Learn the Basics” python tutorials for the interactive website below. Read the theory, run the code, alter the code and re run it, then try the exercises.

<https://www.learnpython.org/>

Learn the Basics

- Hello, World!
 - Variables and Types
 - Lists
 - Basic Operators
 - String Formatting
 - Basic String Operations
 - Conditions
 - Loops
 - Functions
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Week 3-Task 3: Critical Views

Expected time commitment: 2 hours

Evidence: Report the length of a single A4 side

Answer the three questions listed below. This requires critical thinking – this means to see things from different perspectives and to evaluate good and bad aspects. Can you do this and link ideas together.

- **What is computer science?**
 - **Why is computer science important to society?**
 - **Why do you wish to study Computer Science?**
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Week 4-Task 4: Super curricular

Expected time commitment: 140 minutes

Evidence: provoking thoughts expressed on Word/PPT

Watch the motion picture "The Matrix". Think about all the aspects of this movie that relates to computer science.



Week 5-Task 5: Java

Expected time commitment: 3 hours

Evidence: A presentation showing the key skills that you have acquired during the tutorials.

- Java is one of the older programming languages developed by developed by Sun Microsystems and released in 1995. Java runs on a variety of platforms, such as Windows, Mac OS, and the various versions of UNIX. We will begin by completing a range of tutorials on codecademy in order to gain some experience in the Java programming language.
- Click on the link below, ensure that you are using google chrome.
- Sign up using your school email (make note of the password that you set, so that you don't forget it later on)
- Complete tutorials 1-12
<https://www.codecademy.com/learn/learn-java>
- Obviously this is just an introduction.
- You will need much more practice to develop the skills that you need to develop a complete program for your programming project.
- Create a 6 slide presentation of the key skills that you have acquired.

HUNGRY FOR MORE? OF COURSE YOU ARE 😊

- Go through these tutorials for extra practice:
<http://www.tutorialspoint.com/java/>
- This tutorial gives a more detailed understanding of Java
- Evidence via a learning log showing/explaining key learning (printscreens +explanations)