

Computer Science A Level

Y11 Bridging Tasks

Description of task	Why is it useful?	Task
Task 1 - Hardware evolution	One of the first topics you will cover at A Level will be the CPU. An understanding of the history of the CPU will be useful in understanding some of the terminology.	<p>Read the following articles:</p> <p>https://www.telegraph.co.uk/finance/newsbysector/epic/arm/8243162/History-of-ARM-from-Acorn-to-Apple.html</p> <p>https://www.theguardian.com/technology/2015/nov/29/arm-cambridge-britain-tech-company-iphone</p> <p>Using the information provided in both of those articles, produce a timeline from 1978 to 2020 that shows the major events in the history of ARM, starting with the formation of Acorn, and ending in the recent announcement that Apple is moving from Intel to ARM processors in the next Macintosh hardware.</p> <p>Extension: From the following or any other resources you find, produce a dual timeline from 1971-2020. On the left side of the timeline it should show a timeline of Intel x86 family CPUs, and on the right it should show the ARM timeline as above.</p> <p>https://www.tomshardware.com/picturestory/710-history-of-intel-cpus.html</p>
Task 2 - Recap on binary and hex	You will need to understand how negative numbers and fractional numbers are encoded at A Level, and this requires a solid grounding in binary in particular.	Complete the worksheet on binary and hex.
Task 3 - Recap on subroutines	You need to be comfortable writing small programs that are broken up into smaller parts.	<p>Read the slides and then complete the task on creating a restaurant menu simulator in Python. Read the comments in the slides for extra information.</p> <p>Print out the resulting finished Python program, or upload to Canvas as proof that you have attempted this task.</p>
Task 4 - Functions	We will learn Java next year, and this really requires you to understand how to write and use your own functions.	<p>Complete the last task on slide 15 in a separate program if you can.</p> <p>If you're feeling very confident, have a go at the exercises here (try not to peek at the solutions!):</p> <p>https://codingbat.com/prob/p173401</p>
Task 5 - HTML	CSS and Javascript all require you to understand HTML first.	<p>Work through the tutorials here and take the quiz at the end. As a minimum work through all tasks from HTML HOME to HTML Javascript.</p> <p>https://www.w3schools.com/html/default.asp</p>