

A Level Computer Science

Part A - Bridging Work Task

This is a fantastic opportunity to expand your understanding of A Level Computer Science as you prepare for enrolment and start at Franklin in September.

Please complete the work and bring a copy to your enrolment, either printed or electronically.

The work will take you around **2 hours** so plan your time to best suit you.

How do I complete and submit my task?	<p>Complete the tasks on paper/handwritten or digitally, and bring a copy, either paper or electronically, to your enrolment appointment. Also, bring this along to your first lesson in September.</p> <p>If you didn't attend the Taster Day, don't worry. It isn't essential for completing this work, but please ensure that you have completed this bridging work.</p>
Introduction to your Bridging Task	<p>This task will give you an introduction to the first topics you can expect to study in September.</p> <p>In preparation for A Level Computer Science at Franklin the following tasks will immerse you in the subject of Computer Science and develop a set of skills needed to achieve success in this subject.</p> <p>Computers use binary - the digits 0 and 1 - to store data. All computer data is represented using binary.</p>
Task details	<p>Follow this online course that was created by our department. bit.ly/3JtW9Ia</p> <p>The course is set up so that each topic contains an overview and some examples followed by a practice section. There is a final quiz at the end.</p> <p>Your submission should show evidence that you have completed each of the sections below:</p> <ul style="list-style-type: none">• Binary Conversion Practice• Hexadecimal Conversion Practice• Binary Addition Practice• Binary numbers with a fractional part Practice.

	<p>You should then complete the final quiz.</p> <p>Your completed work should include the practice questions from each section in addition to evidence of your final quiz score.</p>
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Resources to help you with the Bridging Task	In addition to the practice questions each section contains some videos to watch followed by some walk-through examples.
Extension Tasks	
Extension Tasks to stretch and challenge you	<p>If you have completed the above to the best of your ability, feel free to try this extension task (<i>this is optional</i>).</p> <p>If you want to investigate binary numbers with more depth.</p> <p>You can look at how to represent negative numbers here: https://bit.ly/3yOwbKw You will need to create a free account.</p>
Massive Open Online Courses (MOOCs)	<p>You might enrol on this online course and complete the following to push you a little further (this is optional):</p> <p>https://bit.ly/3pffd67</p>

A Level Computer Science

Part B – Preparing for Studying at Franklin

A fantastic opportunity to widen your understanding of the course.

Examining Board and Specification	<p>The Exam board for A Level Computer Science is OCR. You can view the specification at the following link: https://www.ocr.org.uk/Images/170844-specification-accredited-a-level-gce-computer-science-h446.pdf</p> <p>You can find a full breakdown of all topics here: https://craigndave.org/ocr-a-level-h046-h446-videos/</p>
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	<p>Progression after this course:</p> <p>This qualification will allow you to progress to a wide range of degrees and opportunities in the Subject area of computer science including, Software development, Web Development, Cyber Security, Robotics & AI.</p> <p>The skills developed on the course will also support progression into degrees in the wider field of STEM.</p> <p>There are many different career fields that students go into after studying</p> <table border="1" data-bbox="430 589 1433 813"> <tr> <td data-bbox="430 589 932 813"> <ul style="list-style-type: none"> • Artificial Intelligence (AI) • Web development • Data management • Statistics • Business analysis </td> <td data-bbox="932 589 1433 813"> <ul style="list-style-type: none"> • Cybersecurity • Software development • Engineering • Architecture • Information security </td> </tr> </table>	<ul style="list-style-type: none"> • Artificial Intelligence (AI) • Web development • Data management • Statistics • Business analysis 	<ul style="list-style-type: none"> • Cybersecurity • Software development • Engineering • Architecture • Information security
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<p>Preparing for the course</p>	<p>Here are some helpful sources of information if you would like further information about the subject:</p> <p>Whilst GCSE Computer Science is not required you may want to look over some of the content as lots of the topics are shared, with complexity added in A Level. https://bbc.in/3ywCbHG</p> <p>If you did study Computer Science at GCSE, you may find it useful to look over the specification and topic links above to identify the common areas.</p> <p>Craig and Dave provide a full range of videos that cover the full specification. https://craigndave.org/ocr-a-level-h046-h446-videos/</p> <p>Isaacs Computer Science is a free online resource that gives you access to a huge range of online learning materials for the classroom, homework, and revision. https://isaacomputerscience.org/</p>		