

# Getting Ready For A-LEVEL COMPUTER SCIENCE



Name		
A-LEVEL COMPUTER SCIENCE	LOGIC REQUIRED FOR A-LEVEL	Summer 2019

We are delighted you have chosen to study Computer Science at Worthing College.

**Instructions:** This pack will help you make the best possible start to studying this subject.

The tasks in this pack:

- should take you **about 4 hours to complete**.
- should be handed into your teacher when teaching starts – *from Monday 16<sup>th</sup> September* – with your name on it for assessment.
- are available on the internet – follow the links in the document.

**If you need help:** The tasks are designed to get a bit more difficult as you work through them as they are preparing you for studying at a higher level and to become an effective independent learner. You should try to get as far as you can working on your own but if you do need help, please email us at [a.nicholson@worthing.ac.uk](mailto:a.nicholson@worthing.ac.uk), telling us which task you are working on and what help you need. Help is available throughout the summer holidays.

**GOOD LUCK!**

## Skills Focus for this Getting Ready for Pack

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| <ul style="list-style-type: none"> <li>• The ability to choose the correct method to solve a problem.</li> <li>• Your quality of English communication when a written answer is required.</li> <li>• Clarity of logical communication – how well you show your workings and lay out your work.</li> <li>• Ability to research a given programming language independently</li> <li>• Marking and correcting your work, revising any topics you have forgotten.</li> </ul> | <ul style="list-style-type: none"> <li>• GCSE subject knowledge, including:             <ul style="list-style-type: none"> <li>– Linear Number Patterns</li> <li>– Digital Literacy</li> <li>– Understanding Algorithms</li> <li>– Programming Theory</li> </ul> </li> </ul> |
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Summer work – Introduction to A-Level Computer Science			
Target Grade	Type of task	Task	Deadline/ Evidence
All	Research and Install	<p><b>Integrated Development environment</b></p> <p>Throughout the two years you will be studying A Level Computer Science, we will use a variety of programming languages. Our main language for the exam will be C# as this is the language that the exam board uses when writing our course content / papers and is an excellent stepping stone to move into Higher Education. We will use Visual Studio to write programmes.</p> <p>Please ensure that you have downloaded a copy of the Visual Studio Community IDE onto your own computer.</p> <p>Visual Studio Download  <a href="https://visualstudio.microsoft.com/vs/community/">https://visualstudio.microsoft.com/vs/community/</a>  Get started with Visual Studio  <a href="https://visualstudio.microsoft.com/vs/getting-started/">https://visualstudio.microsoft.com/vs/getting-started/</a></p>	<p>16th September 2019</p> <p>Pic of VS on your own computer</p>
All	Revision Questions	<p><b>GCSE Questions</b></p> <p>Answer all of the questions bring your work to your first computer science lesson.</p> <p><a href="https://filestore.aqa.org.uk/sample-papers-and-mark-schemes/2018/june/AQA-85202-QP-JUN18.PDF">https://filestore.aqa.org.uk/sample-papers-and-mark-schemes/2018/june/AQA-85202-QP-JUN18.PDF</a></p>	<p>16th September 2019</p> <p>Answers</p>
8 or 9 at GCSE Maths <b>or</b> Computer Science	Essay	<p><b>Extension Work</b></p> <p>This essay question is similar to the theory work you will be required to undertake for the Paper 2 Legal &amp; Ethics topic:</p> <p><i>A company employs a team of programmers to develop software to control a fleet of box driverless cars, providing a taxi service for clients in a large city.</i></p> <p><i>Discuss a range of moral, ethical, legal and cultural issues that the programmers may need to consider whilst developing the service and that may arise during the use of the service by the public. In your answer you will be assessed on your ability to follow a line of reasoning to produce a coherent, relevant and structured response.</i></p>	<p>16th September 2019</p> <p>Essay</p>
<p><b>Notes:</b></p> <p>Not everyone will have studied GCSE Computer Science, however you will need to be familiar with the logic terms by the start of the course and many of these will be familiar from maths. Please indicate clearly on your work at the start whether you studied GCSE Computer Science.</p> <p>Clearly label all pages with your name and arrange them in the correct order. You do not need to print the question sheets although you may choose to do so for your own records.</p> <p>If you found these worksheets really challenging and weren't able to answer the questions you might want to consider the Cambridge Technical ICT course. Please ask for advice at enrolment.</p>			