



## Computer Science Year 10 Mock Paper 1 Checklist

<b>Computer Science Year 10 Mock Paper 1 Checklist</b>			
<b>Cyber Security</b>	<b>R</b>	<b>A</b>	<b>G</b>
Identify common threats to computer networks			
Identify common methods of preventing cyber threats			
<b>Networks</b>	<b>R</b>	<b>A</b>	<b>G</b>
Identify different types of network			
Describe the key differences between types of network			
Identify hardware components of networks			
Identify methods of improving network performance			
Describe the key differences between peer-to-peer and client-server networks			
Describe advantages and disadvantages of cloud computing			
<b>CPU Hardware</b>	<b>R</b>	<b>A</b>	<b>G</b>
Identify key components of the CPU			
Describe the role of CPU components in the fetch, decode, execute cycle			
<b>Ethics, Legal and Cultural Issues</b>	<b>R</b>	<b>A</b>	<b>G</b>
Apply understanding of ethical, legal and cultural issues to specific Computer Science scenarios			



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<b>Operating Systems</b>		<b>R</b>	<b>A</b>	<b>G</b>
Identify the functions of an operating system				
Explain these functions in detail, and their benefits to the user				
<b>Memory and Storage</b>		<b>R</b>	<b>A</b>	<b>G</b>
Describe the functions of primary storage				
Identify the key differences between general purpose devices and embedded systems				
Calculate storage capacity				
<b>Network Topologies and Protocols</b>		<b>R</b>	<b>A</b>	<b>G</b>
Describe the key features of network topologies				
Identify the key features of common network protocols				
Explain the key features of DNS and data packets				
<b>Computer Science</b>	<b>Link (add revision links- page no or online)</b>			
<b>SharePoint Lesson Resources</b>	<a href="#">SharePoint &gt; Subject Resources &gt; Computer Science &gt; Yr 10</a>			
<b>Isaac Computer Science (OCR)</b>	<a href="https://isaacomputerscience.org/topics/gcse?examBoard=all&amp;stage=all#ocr">https://isaacomputerscience.org/topics/gcse?examBoard=all&amp;stage=all#ocr</a>			
<b>BBC Bitesize (OCR)</b>	<a href="https://www.bbc.co.uk/bitesize/examspecs/zmtchbk">https://www.bbc.co.uk/bitesize/examspecs/zmtchbk</a>			
<b>Craig &amp; Dave Videos (OCR)</b>	<a href="https://student.craigndave.org/gcse-ocr-j277-computer-science-videos">https://student.craigndave.org/gcse-ocr-j277-computer-science-videos</a>			



## Computer Science Year 10 Mock Paper 2 Checklist

<b>Computer Science Year 10 Mock Paper 2 Checklist</b>			
<b>Computational Thinking</b>	R	A	G
Identify key concepts of Computational Thinking techniques			
<b>Variables</b>	R	A	G
Create variables using pseudocode or Python			
<b>Algorithms</b>	R	A	G
Identify key variables from a given algorithm			
Trace variables and outputs from a given algorithm			
Identify the purpose of a given algorithm			
Describe the key differences between high and low-level programming languages			
Describe a given algorithm using correct flow chart shapes			
Describe the steps of common searching and sorting algorithms			
<b>Testing and Maintenance</b>	R	A	G
Explain key concepts of testing algorithms			
Identify methods of making code maintainable			
<b>Programming</b>	R	A	G



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Write programs using the three basic programming constructs			
Identify the outputs of arithmetic programming functions			
Write a complete program based on given criteria			
Apply SQL statements to a given database table			
<b>Binary and Hexadecimal</b>	R	A	G
Converting between denary, binary and hexadecimal			
Apply binary shifts for multiplication and division			
<b>Boolean Logic Gates</b>	R	A	G
Create logic diagrams from a given logic statement			
Complete trace tables from a given logic statement			
<b>Data Representation</b>	R	A	G
Describe how images are stored in a binary form			
Calculate file size			
Describe compression algorithms			
Describe key characteristics of metadata			
<b>Computer Science</b>	<a href="#">Link (add revision links- page no or online)</a>		



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<b>SharePoint Lesson Resources (revision notes, flashcards, glossaries etc.)</b>	<a href="#">SharePoint &gt; Subject Resources &gt; Computer Science &gt; Yr 10</a>
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<b>W3 Schools Python Tutorials</b>	<a href="https://www.w3schools.com/python/default.asp">https://www.w3schools.com/python/default.asp</a>