

Long term planning grid

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 11	<p>Network Threats</p> <p>1-3: Malware and types of attacks 4-6: Protecting from Threats 7.Recap 8.Assessment</p> <p>Main Outcome: Students will learn about how computers can be attacked by cyber criminals and how this can be prevented.</p> <p>Skills Developed Cyber Security Real World Problem Solving</p> <p>How will learning be assessed? End of unit test using exam style questions</p> <p>Defensive Design</p> <p>1. Anticipating misuse and authentication 2. Validating and handling inputs 3-4. Maintainability 5. Recap 6. Assessment</p> <p>Main Outcome:</p>	<p>System Software</p> <p>1-3. Operating Systems 4-6. Utility Software 7. Recap 8. Assessment</p> <p>Main Outcome: Students learn about operating systems and utility software, special software that is needed for computers to function properly and in a user-friendly way.</p> <p>Skills Developed Information Recall</p> <p>How will learning be assessed? End of unit test using exam style questions</p> <p>Testing</p> <p>1. Purpose of Testing 2. Types of testing 3. Test Data 4. Recap 5. Types of errors 6. Refining Algorithms 7. Recap 8. Assessment</p>	<p>Ethics and Laws</p> <p>1. Ethical and Cultural issues 2. Environmental issues 3. Legal and Privacy issues 4. Laws and Legislation 5. Recap 6. 8 marker practice 7. Assessment</p> <p>Main Outcome: Students learn how technology affects society and begin developing the skill of analysing this and discussing this.</p> <p>Skills Developed Analysis Comparisons Extended writing</p> <p>How will learning be assessed? End of unit test using exam style questions</p> <p>Languages</p>	<p>Key Algorithms</p> <p>1. Searching Algorithms 2. Bubble Sort 3. Insertion Sort 4. Merge Sort 5. Recap 6. Assessment</p> <p>Main Outcome: Students will learn about and analyse the major algorithms</p> <p>Skills Developed Analysis Information recall Real World Problem Solving</p> <p>How will learning be assessed? End of unit test using exam style questions</p> <p>Practical Programming</p> <p>1. Project Idea 2. Planning the program 3. Developing the program 4. Testing the program</p> <p>Repeat for another project</p>	<p>Programming and Revision</p> <p>Alternate lessons between programming simple tasks and revising key points.</p>	

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	<p>Students will learn about how to create programs that do not break from user use, as well as how to authenticate users and make their code maintainable.</p> <p>Skills Developed Programming Testing and Debugging code</p> <p>How will learning be assessed? End of unit test using exam style questions</p>	<p>Main Outcome: Students learn how to test code and improve it, as well as which testing methods, they can use to efficiently test their code.</p> <p>Skills Developed Analysis Information recall Real World Problem Solving</p> <p>How will learning be assessed? End of unit test using exam style questions</p>	<ol style="list-style-type: none"> 1. High and Low Level Languages 2. Translators, Interpreters and Compilers 3. Recap 4. Features of an IDE 5. IDE Practice 6. Recap 7. Assessment <p>Main Outcome: Students learn about what a programming language is and how they are different. They also explore how to develop code efficiently using an Interactive Development Environment.</p> <p>Skills Developed Information Recall</p> <p>How will learning be assessed? End of unit test using exam style questions</p>	<p>Main Outcome: Students will practice programming for a project, which will help them internalise skills they will need for the second paper.</p> <p>Skills Developed Analysis Information recall Real World Problem Solving</p> <p>How will learning be assessed? The students will write up their project, this writeup will be assessed with a rubric.</p>		
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