

## YEAR 9, Cybersecurity (Term 3), Computer Science (Creative Industries)

Rationale and Context of Unit:	Core curriculum content:	Tier 2 & Tier 3 vocabulary explicitly taught:
<p>Thus far, students have covered basic computer skills, coding skills and have looked at how a computer operates – looking at hardware and software, along with binary and ascii coding systems.</p> <p>Year 9 builds on knowledge which students have learned in year 7 and year 8 and starts prepare them for Computer Science GCSE course.</p> <p><b>In Key Stage 3 students must:</b></p> <ul style="list-style-type: none"> <li>Understand a range of ways to use technology safely, respectfully, responsibly and securely. This includes protecting their online identity and privacy; recognising inappropriate content, contact and conduct and knowing how to report concerns.</li> </ul> <p>We cover the above point in this unit.</p>	<p>Students are taught:</p> <ul style="list-style-type: none"> <li>About data and privacy</li> <li>What social engineering is</li> <li>About hacking</li> <li>About different viruses</li> <li>How to protect against all of the above</li> </ul> <p>This knowledge will need to be applied if a student takes the KS4 Computer Science course or the KS4 vocational IT course.</p> <p>If a student is interested in a career in cyber security then this unit gives them a good introduction.</p>	<p>Data (2) vs Information (2) and the difference between them.</p> <p>Malware (3)</p> <p>Ethical hacking (3)</p> <p>Biometrics (2)</p> <p><i>NB. Each lesson has a key words list to accompany the students' learning and more words may be explicitly taught than the above but these are obligatory.</i></p>

<b>Challenge and Support:</b>	<b>World wide learning/ links to 21<sup>st</sup> century:</b>	<b>Cultural capital/ Industry/ Enrichment:</b>
<p>Each lesson has EDSM descriptors and there are tasks in each lesson which target HAPs. (Digging deeper / challenge tasks)</p> <p>This scheme gives students the opportunity to extend their knowledge of what cybersecurity is. There are extension tasks for HPAs throughout the unit. Along with a careers lesson at the end of the unit.</p> <p>Students will be taught how to change the colours of documents. A list of key words/ word bank is available for every lesson with definitions.</p> <p>Tasks are chunked with step by step instructions and the lessons powerpoints are saved on our google classrooms. Students who need to, can save a copy to their areas so they can refer back to it.</p> <p>Extra help guides are also available in both electronic and printed out formats for various pieces of software.</p> <p>Writing frames / bullet points to support learners with extended writing tasks.</p> <p>Students are given plenty of time (at least a week) to complete any homework tasks. They are encouraged to complete this at lunchtime or at homework club, giving them access to computers, if they do not have IT access at home.</p>	<p>Each lesson has either a ‘real life link’ or a ‘link to careers’ section, depending on which one is relevant to the lesson.</p> <p>IT is a huge industry now and working in cyber security can be very lucrative. Certain skills and knowledge are needed and this unit introduces the basics to them.</p> <p>Not only is this a good career option to investigate but it is also relevant to everyday life online.</p> <p>Being aware of what details you are giving out online and how it can be used is essential in today’s society.</p>	<p>Careers link on each lesson provides a prompt for students to go and research that particular career.</p> <p>Project lesson at end of unit which asks students to put them themselves in a real world situation (running an IT team) and experience considerations made in that particular scenario.</p> <p>There is a careers lesson at the end of the unit which looks at jobs and careers around cybersecurity at GCHQ.</p>

<p>Lessons will be scaffolded in accordance with SEND and PP passports and include the suggested strategies. Seating plans will be annotated based on passports.</p> <p>To support SEND students further, scaffolding, cognitive and metacognitive strategies, explicit Instruction and flexible grouping, memory retrieval techniques are used, along with the aid of technology.</p>		
<p><b>Historical, Social, Moral, Spiritual, Cultural context:</b></p>	<p><b>Cross curricular links/ literacy/numeracy:</b></p>	<p><b>Common misconceptions:</b></p>
<p>We consider the effect that bots and hacking have on society and how easily behaviour can be influenced and changed.</p> <p>We also look at the laws which govern the world of IT and Computing. (GDPR)</p>	<p>There are opportunities to read aloud, extended writing tasks and a careers research task at the end of the unit, where information found out about GCHQ etc. will be shared with the rest of the class in a presentation (oracy task).</p>	<p>That all data given online is safe. It is not. You need to be a critical thinker when using anything online.</p> <p>How to be aware of scams and what forms they can take.</p>
<p><b>Assessment timeline:</b></p>		
<ul style="list-style-type: none"> <li>• Skills will be assessed on a lesson by lesson basis using AB tutor to monitor students' progress with the development of their computer science skills.</li> <li>• Recap / memory exercises at start and end of each lesson.</li> <li>• All lessons show examples of what students are aiming for (where applicable)</li> <li>• EDSM criteria included in all lessons so students can self-assess each lesson</li> <li>• Assessment quiz at the end of the unit</li> <li>• Presentation about careers at end of unit</li> </ul>		

## Home learning

HMK L3 Computer misuse act  
 HMK L6 Revision for end of unit test

### Further reading / watching:

- L3: Computer misuse act extended reading comprehension activity
- <https://www.ncsc.gov.uk/>
- <https://www.bbc.co.uk/bitesize/guides/zbgg4qt/revision/2>

## Feedback

Feedback given on careers presentation via google classroom assignment  
 Feedback given via self-marking end of unit quiz on google form

Class discussions used regularly. Online Quizzes.

## Length of unit (duration indicated in lessons)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
<b>Unit: Representations (Term 3 of Year 9)</b>																													