

YEAR 9, Cybersecurity (Term 3), ICT and Computing (Tech Fac)

Rationale and Context of Unit:	Core curriculum content:	Tier 2 & Tier 3 vocabulary explicitly taught:
<p>Thus far, students have covered basic computer skills, basic and further coding skills and have developed their design and multimedia skills. Year 9 focusses on the outstanding elements which have not yet been covered in the KS3 curriculum and builds on Computer Science knowledge.</p> <p>In Key Stage 3 students must:</p> <ul style="list-style-type: none"> 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. <p>We cover the above point in this unit. This unit builds upon knowledge learned in other 'Computer Science' focussed units in KS3.</p>	<p>Students are taught:</p> <ul style="list-style-type: none"> About data and privacy What social engineering is About hacking About different viruses How to protect against all of the above <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 'the basics'.</p>	<p>Data (2) vs Information (2) and the difference between them. Malware (3) Ethical hacking (3) 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>
Challenge and Support:	World wide learning/ links to 21 st century:	Cultural capital/ Industry/ Enrichment:
<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.</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>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>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. They can print the document if needed and make notes (or do this electronically).</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 (a fortnight) 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>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 are used, along with the aid of technology.</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>	
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Historical, Social, Moral, Spiritual, Cultural context:	Cross curricular links/ literacy/numeracy:	Common misconceptions:
<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.</p>	<p>There are opportunities to read aloud, extended writing tasks and link to Alan Turning and the Wizard of Oz in this unit.</p>	<p>That all data given online is safe. It is not. You need to be a critical thinker when using anything online.</p>
Assessment timeline:		
<ul style="list-style-type: none"> • 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. • Recap / memory exercises at start and end of each lesson. • There is a mid-unit quiz and an end of unit quiz in this unit. • All lessons show examples of what students are aiming for (where applicable) • EDSM criteria included in all lessons so students can self-assess each lesson • Assessment scores will be converted into end of unit percentages. A spreadsheet will be generated for every single student and every single answer they gave so I can see which questions / topics they have struggled with and take that into the next unit / recap. 		
Home learning		
<p>HMK focusses on PiXL unlock sheets and literacy tasks. One HMK is given per term in KS3 for IT.</p>		
Further reading / watching:		
<ul style="list-style-type: none"> • L3: Computer misuse act extended reading comprehension activity • https://www.ncsc.gov.uk/ • https://www.bbc.co.uk/bitesize/guides/zbgg4qt/revision/2 		

Feedback

In KS3, marking is via self-marking google quizzes. Students will have at least two of these per unit. (Mid unit and end of unit)

Feedback for HMK is given via google classrooms. There is one HMK per term.

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
Unit: Representations (Term 3 of Year 9)																													