REMOTE LEARNING MODULE

Subject: Computer Science
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Created: 14.07.20
Updated: N.A

Subject:	Computer Science			Teacher (if applicable):	CMI / GMA / ACR/ GSC
Year:	8			Ability/Class (if applicable):	Mixed Ability
Module title:	Cyber Security				
Duration:	2 weeks ☐	4 weeks ☐	6 weeks ☐	8 weeks ☐	Other:

Intent

Intent Statement - at Landau Forte Amington, we believe learning powerful knowledge helps students achieve and creates a fairer society. How are you trying to accomplish this, with this module?

This topic will focus on student recovery following the pandemic, which has resulted in students experiencing the following possible losses: routine, structure, friendship, opportunity and freedom. It will support students academically, socially and emotionally, in order to transition students back to Academy life and support with the issues resulting from loss.

To support the learning of pupils a remote environment whist skill keeping in line with the subject aims and Academy values.

Aims - what do you want pupils to be able to know and do by the time they finish this module?

Are responsible, competent, confident and creative users of information and communication technology.
Become digitally literate in order to able to use, and express themselves and develop their ideas through, information and communication technology
Become digitally literate in order to become active participants in a digital society and workplace.

Academy values – at Landau Forte Amington, we want students to be ambitious, brave and kind. How are these values promoted in this module?

Brave: Empower pupils to become digitally literate in order to able to use, and express themselves and develop their ideas through, information and communication technology.

Ambitious: Delivery of challenging concepts and ideas.

Kind: To become digitally literate in order to become active participants in a digital society and workplace. To be safe and considerate users of the internet and digital learning platforms.

Content – what is being covered, ensuring breadth & depth?	National Curriculum/Exam Specification - how does the content link to the NC or Exam Spec?
Topics: Cyber Security Primary and Secondary Data This SOW has removed the representation topic as it was not started in year 7. It will be planned to be covered in more detail at the end of the year.	Undertake creative projects that involve selecting, using, and combining multiple applications, preferably across a range of devices, to achieve challenging goals, including collecting and analysing data and meeting the needs of known users Create, re-use, revise and re-purpose digital artefacts for a given audience, with attention to trustworthiness, design and usability Understand a range of ways to use technology safely, respectfully, responsibly and securely, including protecting their online identity and privacy; recognise inappropriate content, contact and conduct and know how to report concerns.

Powerful Knowledge - what powerful knowledge is included in this module? Consider what knowledge is it important for our students to know, so that when they leave school they can engage in and lead discussions, with people from the most advantaged backgrounds?
How pupils can stay safe online in relation to their age. Understanding the range in cyber-attacks, including the difference between internal and external attacks.

Implementation

KEY CONCEPTS	
Key Concepts – what are the key concepts being taught?	**Progression** – how will studying these key concepts support progression to the next academic year, or key stage?
Cyber Security: Cyber threats and online protection. Primary and Secondary Data: Types, uses and selection.	Allows pupils to refine knowledge and understanding in preparation for KS4. Taken from traditional curriculum but reordered to allow learning without ICT access.

	This will hopefully allow learners to use the ICT facilities for programming units.
LEARNING	
Synchronous – what are the synchronous aspects of the module, including new material taught?	**Asynchronous** – what are the asynchronous aspects of the module, including deliberate practice?
Live talking (MS Teams) ▪ Range of Cyber Attacks ▪ Cyber Threats ▪ Primary and Secondary Data (Differences, key details) ▪ How to create an effective, un-biased questionnaire	Deliberate Practice: ▪ Defining a range of cyber threats/attacks ▪ Defining differences between Primary and Secondary data. ▪ Advantages and disadvantages between the use of Primary data over secondary data and vice versa ▪ Creating a questionnaire (Computer Based Questionnaire) ▪ Collecting Results of Questionnaire ▪ Analysing and Summarising Results of Questionnaire ▪ Developing Cyber Security Quiz (using primary and secondary data)
ENGAGEMENT	
Accessibility – how are you going to ensure students without ICT can engage with this module?	**Disengagement** – how are you going to ensure students who are not engaging with this module are identified and supported?
Resources and Activities can be compiled into a booklet, students will not be able to collect questionnaire results from other students in class, instead will have to collect results from others within their household	Contact pupil via Edulink. Contact home via Edulink. Contact home via phonecall. Contact home via CL. Contact home via SLT.

FEEDBACK		
End of Module – what is the end of module assessment, which will be used to evaluate the knowledge and skills gained?	**Review Points** – what takes place at the review points, to monitor the progress of learners and provide feedback, or support?	
Online test using Microsoft Forms (done through MS Teams). (Paper based document where required)	**2 Weeks**	Exit Ticket (Cyber Attacks) (Uploaded to MS Teams, marked via MS Teams using a Rubric)
	4 Weeks	Exit Ticket (Primary/Secondary Data) (Uploaded to MS Teams, marked via MS Teams using a Rubric)
	6 Weeks	End of Topic Assessment (Microsoft Forms – part of MS Teams) (Assessment will be marked and returned via MS Teams)
	8 Weeks	n/a
	Other	

Delivery *(please note - a two week remote learning module may only take one lesson cycle)*

		1) Lesson Type (remote or blended)		2) DNA (Do Now Activity/Reading)	3) Learning Intentions (what, why & how)		
1	Number of lessons in cycle:	Remote (live on MS Teams and remote as study)	☒	BEBRAS Computational Thinking Questions	What	What is Cyber Security and how can you stay safe?	
		Blended (live in classroom and remote as study)	☐		Why	To understand what a cyber security breach may look like, and how to protect yourself online	
					How	You will have a strong understanding of what it means to be safe online, and how to spot potential risks	

	4) New Material (previous learning/ new material)	5) Check for Understanding (questioning/checking)	6) Prepare for Practice (model/ scaffold)	
Synchronous (live)	• What is meant by Cyber Security? • The range of Cyber Attacks (internal/external)	Check for Understanding through questions which students can respond to using the chat and hands up functions of MS Teams	Demonstrate/showcase a high-level example of work via MS Teams (Screen Share)	
	7) Deliberate Practice (guided/ independent)	**8) Feedback (light/deep)**	**9) Review (daily/monthly)**	Asynchronous (remote)
	Write definitions and explain the different types of Cyber Security Issues / Cyber attacks	Compare student definitions and explanations to actual definitions… Their work is uploaded to MS Teams, and using a	n/a	

		Online activity - (http://www.pbs.org/wgbh/nova/labs/lab/cyber/) Defend the system game	Rubric you can compare their definitions of Cyber-attacks to actual definitions		
2		1) Lesson Type (remote or blended)	2) DNA (Do Now Activity/Reading)	3) Learning Intentions (what, why & how)	
		Remote (live on MS Teams and remote as study) ☒	BEBRAS Computational Thinking Questions	What: To know the difference between primary and secondary data	
		Blended (live in classroom and remote as study) ☐		Why: To understand the difference in value and reliability between primary and secondary information	
				How: You will understand and be able to create/use different forms of information	
	Number of lessons in cycle:	4) New Material (previous learning/ new material)	5) Check for Understanding (questioning/checking)	6) Prepare for Practice (model/ scaffold)	Synchronous (live)
		PowerPoint/Textbook extract of what makes data primary/secondary Description of the differences between the two forms of data	Multiple choice quiz questions on PowerPoint, students self-assess to check their understanding	Good/Bad examples of ways to collect primary data part of the PowerPoint presentation students are working through.	
		7) Deliberate Practice (guided/ independent)	8) Feedback (light/deep)	9) Review (daily/monthly)	Asynchronous (remote)
		Practice composing good questions that would be effective for collecting primary data to know how safe people are on the internet	Compare qualities of questions to a checklist outlining what makes a good un-biased question	Cyber Attacks Exit Ticket (Uploaded to MS Teams, completed and reupload to MS Teams by student for marking (using Rubric))	
3		1) Lesson Type (remote or blended)	2) DNA (Do Now Activity/Reading)	3) Learning Intentions (what, why & how)	
		Remote (live on MS Teams and remote as study) ☒	BEBRAS Computational Thinking Questions	What: To create effective questionnaires about cyber security	
		Blended (live in classroom and remote as study) ☐		Why: To refine primary data collection skills	
				How: You will create a unbiased questionnaire effective in collecting primary data	
	N ⊃	4) New Material (previous learning/ new material)	5) Check for Understanding (questioning/checking)	6) Prepare for Practice (model/ scaffold)	Synchron

		Live MS Teams Lesson; Discussion on what makes good/bad questionnaires (questions, leading questions, response options)	Tutor questioning (MS Teams), students respond using the chat and hands up functions of MS Teams	Demonstrate good examples of questionnaires (screen share via MS Teams)	
		7) Deliberate Practice (guided/ independent)	8) Feedback (light/deep)	9) Review (daily/monthly)	Asynchronous (remote)
		Students to individually create a questionnaire to collect information on how "Cyber Safe" people are. Students roll out questionnaire to tutor and peers and collect responses (via MS Teams or Email)	RAG questionnaires with a checklist	n/a	

4		1) Lesson Type (remote or blended)	2) DNA (Do Now Activity/Reading)	3) Learning Intentions (what, why & how)	
		Remote (live on MS Teams and remote as study) ☒ Blended (live in classroom and remote as study) ☐	BEBRAS Computational Thinking Questions	What: To analyse data collected and know how to effectively present information collected Why: To create purposeful and effective information from the data you have collected How: You will be able to effectively present and interpret the primary data you have collected	
	Number of lessons in cycle:	4) New Material (previous learning/ new material)	5) Check for Understanding (questioning/checking)	6) Prepare for Practice (model/ scaffold)	Synchronous (live)
		PowerPoint for students - The importance of data presentation, and how to interpret primary data collected	Multiple choice quiz questions on PowerPoint, students self-assess to check their understanding	Good standard examples of interpreting questionnaire results. Examples demonstrating creating facts or statistics for questionnaire results (e.g. 6 out of 10 people think…)	
		7) Deliberate Practice (guided/ independent)	8) Feedback (light/deep)	9) Review (daily/monthly)	Asynchronous (remote)
		Students use the information collated from their questionnaires and try to make sense and present the information collected.	Students upload their summaries of their data to MS Teams, tutor to leave some short feedback on how they have summarised their questionnaire results	Exit Ticket (Primary/Secondary Data) (Uploaded to MS Teams, marked via MS Teams using a Rubric)	

		Summarise the information collected in an unbiased way.			