

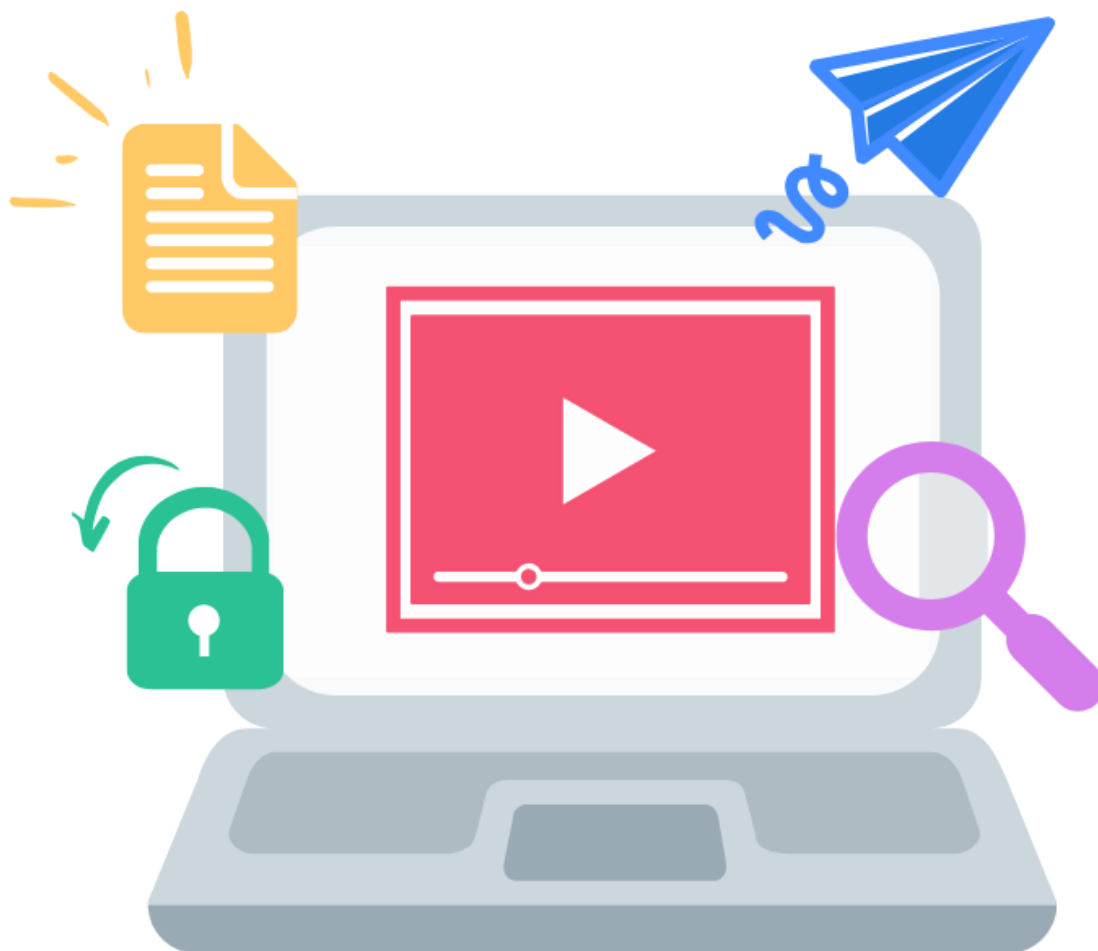
REMOTE LEARNING MODULE

Subject: CS

Author: ACR/GMA

Created: 14.07.20

Updated: N/A



Subject:	CS	Teacher (if applicable):	CMI / GMA		
Year:	9	Ability/Class (if applicable):	Mixed		
Module title:	Programming in Python				
Duration:	2 weeks <input type="checkbox"/>	4 weeks <input type="checkbox"/>	6 weeks <input checked="" type="checkbox"/>	8 weeks <input type="checkbox"/>	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?					
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?					
Can understand and apply the fundamental principles and concepts of computer science, including abstraction, logic, algorithms and data representation Can analyse problems in computational terms, and have repeated practical experience of writing computer programs in order to solve such problems					
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.					
Content – what is being covered, ensuring breadth & depth?			National Curriculum/Exam Specification - how does the content link to the NC or Exam Spec?		

<ol style="list-style-type: none"> 1. Programming basics 2. Inputs 3. Variables and Operators 4. Iteration 5. Data Structure 6. Subroutines 	<p>Use two or more programming languages, at least one of which is textual, to solve a variety of computational problems; make appropriate use of data structures [for example, lists, tables or arrays]; design and develop modular programs that use procedures or functions</p>
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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 to program / Concepts of programming

Abstraction and Decomposition.

Implementation

KEY CONCEPTS

<p>Key Concepts – what are the key concepts being taught?</p>	<p>Progression – how will studying these key concepts support progression to the next academic year, or key stage?</p>
<p>Inputs: Text based programming.</p> <p>Variables and Operators: Types, uses and selection.</p> <p>Iteration: Loops and repetition.</p> <p>Data Structure: Lists and arrays.</p> <p>Subroutines: Definition and creation. Of subroutines.</p>	<p>The study of programming language aids the students wanting to progress to GCSE computer science in understanding the concepts of a text bases programming language needed to not only complete their programming project, but also to help with the theory needed for the second exam paper.</p> <p>The overarching concepts of programming also give good theorems to problem solving which relate to every aspect of the wider world</p>

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?
In a group / live lesson there will be opportunity for discussion around the modelling of the tasks by the teacher	Independently there will be opportunity each lesson to complete several programming tasks, set by the teacher, via an online IDE called repel.it.
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?
Engage with pupils over Print as a booklet and post home.	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?
A multiple choice assessment will be delivered via an online form to evaluate knowledge. Skills will be assessed through exit ticket / improvement templates.	2 Weeks Pupils answer exam style questions then upload to teams, this is then marked via a rubric and pupils given an opportunity to improve their work
	4 Weeks Pupils answer exam style questions then upload to teams, this is then marked via a rubric and pupils given an opportunity to improve their work
	6 Weeks End of unit test given on MS Forms
	8 Weeks
	Other

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

1	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)	<input checked="" type="checkbox"/>	BEBRAS Activity	What	Programming basics	
Blended (live in classroom and remote as study)	<input type="checkbox"/>	Why		Understand the basic commands of programming		
		How		E	I can define input output and variables.	
			4 -	I can explain how input output and variables work		
			5 +	I can apply my knowledge to a brief.		
Number of lessons in cycle:	4) New Material (previous learning/ new material)		5) Check for Understanding (questioning/checking)		6) Prepare for Practice (model/ scaffold)	
	Data types, Variables, Constants, input/output, String handling operations, Arithmetic Operations, Sequence. Live lesson supported by PPT and Worksheet.		The starter is used again later in the slides to check for understanding of new knowledge. In live lesson using hand up or chat function.		At the task stage the teacher will model one of the examples, making it clear that this is just one way of completing the problem and as such the problem can still be attempted by the student in a different way. Modelling in presentation mode of teams.	
	7) Deliberate Practice (guided/ independent)		8) Feedback (light/deep)		9) Review (daily/monthly)	
	The task will be complete independently		The teacher will ask for volunteers to demonstrate their code, and display their code on the teams screen with permission.		N.A	
					Synchronous (live)	
					Asynchronous (remote)	

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		Blended (live in classroom and remote as study)	<input type="checkbox"/>		Why	
				How		
		4) New Material (previous learning/ new material)	5) Check for Understanding (questioning/checking)	6) Prepare for Practice (model/ scaffold)		Synchronous (live)
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