## Seahaven Academy Curriculum Overview Computer Science

Curriculum Overview					
Year Group	Term	Unit of Work	Assessment Content		
7	1	<ul> <li>Unit title Understanding Office 365</li> <li>Students will:         <ul> <li>Know how to use the different Office 365 applications to enhance their schoolwork and work in a digital fashion.</li> <li>Understand how Office 365 allows collaboration and a wide variety of applications that are commonplace in the working world.</li> <li>Be able to select and use a range of applications with to their full functionality when completing work in and out of school.</li> </ul> </li> </ul>	Competency skills test on the different components of Office 365.		
	2	<ul> <li>Unit title Impact of technology – Collaborating online respectfully</li> <li>Students will:         <ul> <li>Know how to work online safely, respect others online and recognise what cyberbullying is and what can be done about it.</li> <li>Understand the challenges the digital world presents. Understand how to recognise and report cyber bullying.</li> <li>Be able to present information to an audience, explaining the effects of cyberbullying.</li> </ul> </li> </ul>	Assessment through the presentation and Forms quiz on key areas.		
	3 and 4	<ul> <li>Unit title Using Media – Gaining support for a cause</li> <li>Students will:         <ul> <li>Know how to process and format a document to present it in the most suitable manner.                 They will know how to select information that is credible based on it's source.</li> <li>Understand how to format documents to ensure they present information in the best possible way. Students will also understand that not all information on the internet is reliable.</li> <li>Be able to recognise reliable and valid sources of information. Create a research document and blog about an area of interest for them.</li> </ul> </li> </ul>	Submission of work through Teams Assignments.		
	5 and 6	<ul> <li>Unit title Programming essentials in Scratch</li> <li>Students will:         <ul> <li>Know the concepts of sequencing, variables, selection and count-controlled iteration and build on their understanding of the control structures' sequence, selection, and iteration.</li> <li>Understand how to implement count-controlled iteration in a programme, design and apply programming constructs to solve a problem (subroutine, selection, count-controlled iteration, operators, and variables)</li> </ul> </li> </ul>	Independently design and apply programming constructs to solve a problem (subroutine, selection, count-controlled iteration, operators, and variables)		

		<ul> <li>Be able to modify a programme to include selection, create conditions that use logic</li> </ul>	
		operators (and/or/not),	
Ω	1	Unit title Understanding Office 365 Students will:  • Know how to use the different Office 365 applications to enhance their schoolwork and	Competency skills test on the different components of Office 365.
0		<ul> <li>work in a digital fashion.</li> <li>Understand how Office 365 allows collaboration and a wide variety of applications that are commonplace in the working world.</li> </ul>	
		<ul> <li>Be able to select and use a range of applications with to their full functionality when completing work in and out of school.</li> </ul>	
	2 and	Unit title Developing for the web	Create a web page to summarise their
	3	Students will:	learning over the entire unit by creating an
		<ul> <li>Know how websites are catalogued and organised for effective retrieval using search</li> </ul>	additional 'How to' web page, they will
		engines; how to apply HTML tags to construct a web page structure from a provided design	follow this up by adding navigation to all
		and know to use search technologies effectively.	pages of the website.
		<ul> <li>Understand what HTML and CSS are; understand how to modify HTML tags using inline</li> </ul>	
		styling to improve the appearance of web pages.	
		<ul> <li>Be able to describe what HTML and CSS are. Bae able to apply HTML tags to construct a web</li> </ul>	
		page structure from a provided design.	
	4 and	Unit title Introduction to Python programming	Summative assessment quiz.
	5	Students will:	
		<ul> <li>Know how to simple Python programs that display messages, assign values to variables, and receive keyboard input.</li> </ul>	
		<ul> <li>Understand how iteration (while statements) controls the flow of program execution.</li> </ul>	
		Understand how to use multi-branch selection (if, elif, else statements) to control the flow of program execution	
		Be able to combine iteration and selection to control the flow of program execution. Be able	
		to use variables as counters in iterative programs.	
	6	Unit title Mobile App development	Plan, develop and review your mobile app.
		Students will:	
		<ul> <li>Know how to develop a mobile app, working from designer to project manager.</li> </ul>	
		<ul> <li>Understand how to decompose their project into smaller, more manageable parts that</li> </ul>	
		allow for effective review and development throughout.	

## **Seahaven Academy**

## **Curriculum Overview**

## **Computer Science**

	<ul> <li>Be able to create their own mobile app and review its effectiveness against the needs of the learner.</li> </ul>	
9	<ul> <li>Unit title Understanding Office 365</li> <li>Students will:         <ul> <li>Know how to use the different Office 365 applications to enhance their schoolwork and work in a digital fashion.</li> <li>Understand how Office 365 allows collaboration and a wide variety of applications that are commonplace in the working world.</li> <li>Be able to select and use a range of applications with to their full functionality when completing work in and out of school.</li> </ul> </li> </ul>	Competency skills test on the different components of Office 365
2 and 3	<ul> <li>Unit title Cybersecurity</li> <li>Students will:         <ul> <li>Know strategies to reduce the chance of a brute force attack being successful, know common malware threats</li> <li>Understand the Data Protection Act and the need for the computer misuse act.</li> <li>Be able to implement strategies to minimise the risk of data being compromised through human error. Be able to examine how different types of malware causes problems for computer systems</li> </ul> </li> </ul>	Summative assessment
4 and 5	<ul> <li>Unit title Python programming with sequences of data</li> <li>Students will:         <ul> <li>Know how to combine key programming language features to develop solutions to meaningful problems.</li> <li>Understand how to use iteration (for loops) to iterate over lists and strings. Understand how to use variables to keep track of counts and sums</li> <li>Be able to perform common operations on lists or individual items; perform common operations on lists or strings</li> </ul> </li> </ul>	Summative assessment
6	<ul> <li>Unit title Data Science</li> <li>Students will:         <ul> <li>Know examples of where large data sets are used in daily life; how to Identify the data needed to answer a question defined by the learner</li> <li>Understand how visualising data can help identify patterns and trends in order to help us gain insights.</li> <li>Be able to evaluate findings to support arguments for or against a prediction.</li> </ul> </li> </ul>	Summative assessment