

Year: 8

Subject: Computer science

Spring Term		
Overarching Topic: Mobile application development & data representation		
What has come before and what comes later:	Students have previously created simple programs in Scratch and Python. They now have the opportunity to develop a 'real world solution' for mobile devices building upon the skills and techniques that they have already practiced. The topic also allow allows students to consider layout and usability.	
	Core	Extension
The Big Questions (What questions will students be able to answer upon mastery of the topic?)	<ul style="list-style-type: none"> • What is an app? • What makes a good application? • What is usability? • What is a GUI? • What makes an effective media campaign • What is data representation? • Why do computers use binary? • How are characters represented in computers? • How are images represented in computers? • How is sound represented in computers? • What is Boolean Logic? • What is an AND, OR & NOT gate? • What is a truth table? 	<ul style="list-style-type: none"> • Research Defold and its use in industry • How do companies use IT to advertise? • What is sampling rate? • What is bit depth? • Who was George Boole • What other logic gates are using in computing? • What is NAND flash?
	Skill/Technique	How students will develop and demonstrate this
Key skills	Solving problems Designing interfaces Sequencing instructions Creating logic circuits Completing truth tables	During assessments, classwork and homework, students will: <ul style="list-style-type: none"> • Create a mobile application • Devise a media campaign to accompany their application

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		<ul style="list-style-type: none">• Explain using diagrams where appropriate how characters, sound and images are represented• Draw logic circuits• Complete truth tables
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