

Creating Mobile Apps Unit 2: Creating Advanced Mobile Apps

Stage 1 Desired Results		
ESTABLISHED GOALS: <u>Competencies:</u> - Students will demonstrate the ability to compare and discuss the effects of computing on society in order to improve current technology practices. - Students will demonstrate the ability to design or improve software in order to respond to events. - Students will demonstrate the ability to discuss and apply techniques for handling data in order to acquire information efficiently. - Students will demonstrate the ability to analyze and summarize text and integrate knowledge to make meaning of discipline-specific materials. - Students will demonstrate the ability to produce coherent and supported writing in order to communicate effectively for a range of discipline-specific tasks, purposes, and audiences. - Students will demonstrate the ability to speak purposefully and effectively by strategically making decisions about content, language use, and discourse style. <u>Content Standards:</u> CSTA - Computer Science Teacher Association CSTA 3A-A-5-4 - Design, develop, and implement a computing artifact that responds to an event (e.g. robot that responds to a sensor, mobile app that responds to a text message, sprite that responds to a broadcast). CSTA 3A-D-3-21 - Apply basic techniques for locating and collecting small- and large-scale data sets (e.g., creating and distributing user surveys, accessing real-world data sets). CSTA 3A-I-6-29 - Redesign user interfaces (e.g., web pages, mobile applications, animations) to be more inclusive, accessible, and minimizing the impact of the designer's inherent bias. CSTA 3B-D-1-28 - Use various data collection techniques for different types of problems (e.g., mobile device GPS, user surveys, embedded system sensors, open data sets, social media data sets). CSTA 3A-C-7-13: Develop and apply criteria (e.g., power consumption, processing speed, storage space, battery life, cost, operating system) for evaluating a computer system for a given purpose (e.g., system specification needed to run a game, web browsing, graphic design or video editing). CSTA 3A-I-1-26: Compare and debate the positive and negative impacts of computing on behavior and culture (e.g., evolution from hitchhiking to ride sharing apps, online accommodation rental services).	Transfer	
	<i>Students will be able to independently use their learning to to create products that engage users and/or solve a problem.</i>	
	Meaning	
	ENDURING UNDERSTANDINGS <i>Students will understand that...</i> - mobile applications may be created on various software platforms. - thoughtful, inclusive design will result in a more robust and reliable product.	ESSENTIAL QUESTIONS - What makes you want to buy an app? - How does an app change your life?
	Acquisition	
	<i>Students will know...</i> - that various events may be used to trigger application responses. - that consulting with others allows one to collect information for an application - that user interfaces are fine-tuned to be inclusive and accessible. - that troubleshooting is needed to find and solve problems - that testing produces more reliable and robust code. <u>vocabulary:</u> animation, data, debug, event, initialize, iteration, layout, message, persistent, procedure, timer, variable	<i>Students will be skilled at...</i> - designing, developing, and implementing a computing artifact that responds to an event. - creating computer applications. - responding to the needs of others through design. - applying basic techniques for locating and collecting data. - redesigning user interfaces. - using various data collection techniques for different types of problems. - using the programming device to obtain various types of data. - identifying the impact of an app on behavior and culture. - identifying the systemic criteria needed to install and run an app.

Content Area Literacy Standards	21st Century Skills
RST.11-12.3 Follow precisely a complex multistep procedure when carrying out experiments, taking measurements, or performing technical tasks; analyze the specific results based on explanations in the text RST.11-12.4 Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to <i>grades 11-12 texts and topics</i>. WHST.9-10.4 Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience. WHST.11-12.2 Write informative/explanatory texts, including the narration of historical events, scientific procedures/experiments, or technical processes.	• <i>Think Creatively</i> • <i>Implement Innovations</i> • <i>Create Media Products</i> • <i>Solve Problems</i>

Stage 2 - Evidence	
Evaluative Criteria	Assessment Evidence
	PERFORMANCE TASK(S):
	OTHER EVIDENCE:

Stage 3 – Learning Plan	
<i>Summary of Key Learning Events and Instruction</i>	
Language Arts Integration	Mathematics Integration
• 1.OA.1 Use	• 1.OA.1 Use
Technology Integration	District Materials
• 1.OA.1 Use	

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