

Lesson Plan: Swift Playgrounds

Lesson Segment Focus: Coding

Lesson: 1 of 1

Course & topic addressed: Technology, Swift Coding

Date: October 16, 2019

Grade: 7th

Student Outcomes

Specific learning objectives for this lesson.	Students will be able to describe the steps needed to solve a problem. Students will be able to utilize basic documentation/comments.
Describe the connection to previous lessons. (Prior knowledge of students this builds upon)	Students will have some background knowledge about coding is and why it is important for them to learn as it relates to the real world.
Knowledge of students background (personal, cultural, or community assets)	Students might vary in their technology experience based on how much they use it outside of school.

State Academic Content Standards

List the state academic content standards with which this lesson is aligned. Include state abbreviation and number & text of the standard.	CT.1.B.2 Describe the steps needed to efficiently solve a problem A.3.B.2 Utilize basic documentation/comments (e.g., program headers, pseudocode)
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Academic Language Support

What planned instructional supports might you use to assist students to understand key academic language to express and develop their content learning? What will you do to provide varying supports for students at different levels of academic language development?	I will provide my students with a basic vocabulary list of the coding technology that will be used in the lesson. They will have access to the list while working on the assignments until they fully grasp each term.
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Key Vocabulary

What vocabulary terms/content specific terminology must be addressed for students to master the lesson?	Program headers, pseudocode, commands, parameter, function
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Materials

Materials needed by teacher for this lesson.	Classroom set of iPads; Swift Playgrounds software downloaded on all iPads
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Materials needed by students for this lesson.	Access to an iPad provided by the teacher, pencil and paper
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Lesson Timeline with Instructional Strategies & Learning Tasks (This should be VERY DETAILED)

Amount of Time	Teaching & Learning Activities	Describe what YOU (teacher) will be doing and/or what STUDENTS will be doing during this part of the lesson.
5 minutes	<u>Introduction:</u>	I will introduce to the students what the lesson will be about. I will review some of the vocabulary words that they will come into contact with and help them come up with ways that they can remember them. I will pass out an iPad to each of the students and instruct them to stay on the Swift Playground application.
20 minutes	<u>Instruction:</u>	I will have my students start out with the Learn to Code 1 playground and work through it. They will stop when they have completed it and I will review with them what new vocabulary words that they saw. They will add these words to their list and figure out their own way to remember them. Then, I will ask them about the problem they had to solve (using codes to capture the gem) and what they did to overcome it. I will then have them chose Learn to Code 2 and follow the same procedure. I will be walking around the classroom observing and answering questions that the students have. Once everyone has completed the activities in the playground, we will do another review of the new vocabulary words that they will add to their list. I will also ask them about the problem that they had to solve with the second playground and how everyone was able to solve it.
5 minutes	<u>Closure:</u>	I will play a short review game with the students about vocabulary words used in coding. I will check for understanding with how basic coding works and the basic commands that are used. I will end the lesson by collecting the iPads and their vocabulary lists.

Accommodations/Modifications

How might I modify instruction for: Remediation? Intervention? IEP/504? LEP/ESL?	Remediation: I would provide individual or small group instruction to students who need extra help Intervention: I would provide extra practice time and instruction for these students. IEP: I would have the students work in groups to solve the problems. ESL: I would try to find a coding app that was available in their native language or had smaller vocabulary.
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Differentiation:

How might you provide a variety of instructional methods/tasks/instructional strategies to ensure all student needs are met?	I would provide other coding apps that start at a more basic level of understanding so that every student can master the basics before moving on to more challenging codes.
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Assessments: Formative and/or Summative

Describe the tools/procedures that will be used in this lesson to monitor students' learning of the lesson objective/s (include type of assessment & what is assessed).	<input checked="" type="checkbox"/> Formative / <input type="checkbox"/> Summative	I will ask vocabulary and problem solving questions about Learn to Code 1
	<input checked="" type="checkbox"/> Formative / <input type="checkbox"/> Summative	I will ask vocabulary and problem solving questions about Learn to Code 2
	<input type="checkbox"/> Formative / <input checked="" type="checkbox"/> Summative	I will collect the student's vocabulary lists and check for understanding

Research/Theory

Identify theories or research that supports the approach you used.	Coding as Literacy Project
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Lesson Reflection/Evaluation

What went well? What changes should be made? How will I use assessment data for next steps?	<i>TO BE FILLED IN AFTER TEACHING</i>
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*adapted from: <http://webcache.googleusercontent.com/search?q=cache:EsQcNWuG1ZoJ:web.mnstate.edu/harms/StudentTeachers/edTPA-LessonPlan.doc+&cd=2&hl=en&ct=clnk&gl=us>; <http://www.moreheadstate.edu/getmedia/cd3fd026-939f-4a47-a938-29c06d74ca01/Lesson-Plan-and-Reflections.aspx>; <http://www.mcneese.edu/f/c/9cb690d2/Lesson%20Plan%20Rubric%20Aligned%20with%20InTASC.docx>; <https://www.uwsp.edu/education/Documents/edTPA/Resource12.pdf>; <https://www.uwsp.edu/education/Documents/edTPA/Resource11.pdf>; <https://www.uwsp.edu/education/Documents/edTPA/Resource11a.pdf>; <https://www.uwsp.edu/education/Documents/edTPA/LessonPlanTemplateSOE.docx>; <https://www.uwsp.edu/education/Documents/edTPA/SpecEdLessonPlanGuide.docx>; <https://www.uwsp.edu/education/Documents/edTPA/SpecEdLessonPlanTemplate.docx>