

Code to Learn: Using Scratch to Demonstrate Learning

Presenter: Liz Greaser, FETC 2017

Example-Country Project
 CCSS.ELA.LITERACY.CCRA.W.9
 Draw evidence from literary or informational texts to support analysis, reflection, and research.
 Project Instructions (abridged)
 Step 1: Research favorite country.
 Step 2: Build an interactive presentation.
 Step 3: Share with peers.
 Step 4: Revise.
 Step 5: Present to class.

Student work: Greece
 Click on the cities.
 This student chose Greece. The project opens with an animation of Socrates (the Scratch mascot) walking. When you click on a city, it activates an animation that shows a picture from that city along with some relevant facts about the city.

Teacher View
 Detail: Colors, text, animation
 Behavior facts
 Map of Greece
 Historical Greek flag

What do you see?
 I see trees, your house, my house, a car, a dog, a cat, a bird, a plane, a boat, a car, a dog, a cat, a bird, a plane, a boat, a car, a dog, a cat, a bird, a plane, a boat.

Science
 Flower
 CCSS.ELA.LITERACY.RS.6-8.2
 Integrate quantitative or technical information represented in words in a text with a version of that information represented visually (e.g., two formulas, diagrams, models, graphs, or tables).

ELA
 CCSS.ELA.LITERACY.WS.3.A
 Draw the reader by establishing a character and introducing a major and/or minor characters in a way that reveals that character's personality.

History/ELA
 What if we integrated coding and curriculum?

Scratch
 "RESEARCH HAS SHOWN THAT MANY OF CHILDREN'S BEST LEARNING EXPERIENCES COME WHEN THEY ARE ENGAGED NOT SIMPLY IN INTERACTING WITH MATERIALS BUT IN DESIGNING, CREATING, AND INVENTING WITH THEM."
 FROM MITCH RESNIK'S ARTICLE, "COMPUTER AS PAINTBRUSH: TECHNOLOGY, PLAY AND THE CREATIVE SOCIETY."
 • FREE
 • BACKED BY MIT
 • LARGE COMMUNITY
 • OFFLINE EDITOR

SCRATCH.MIT.EDU

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About the Author
 Liz Greaser holds a master's degree in library and information science and a Museum Leadership credential. She has no crash out with technology and has been teaching Scratch classes for the last four years. She blogs at artisaneducation.com.

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Key Points

- “Research has shown that many of children’s best learning experiences come when they are engaged not simply in interacting with materials but in designing, creating, and inventing with them.” From Mitch Resnik’s article, “Computer as Paintbrush: Technology, Play and the Creative Society.”
- Scratch (an icon-based programming language) lets kids CREATE with computers, rather than just using them for rote learning or practice.
- After a few “beginner” lessons, ask guided questions to help students create a project that can meet standards, but still showcases their creativity and interests.
- What if we integrated coding and curriculum?
 - Ex: “The Wright Brothers and an Introduction to Scratch” -- which can be found on Liz’s web site, artisaneducation.com

Select Bibliography

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