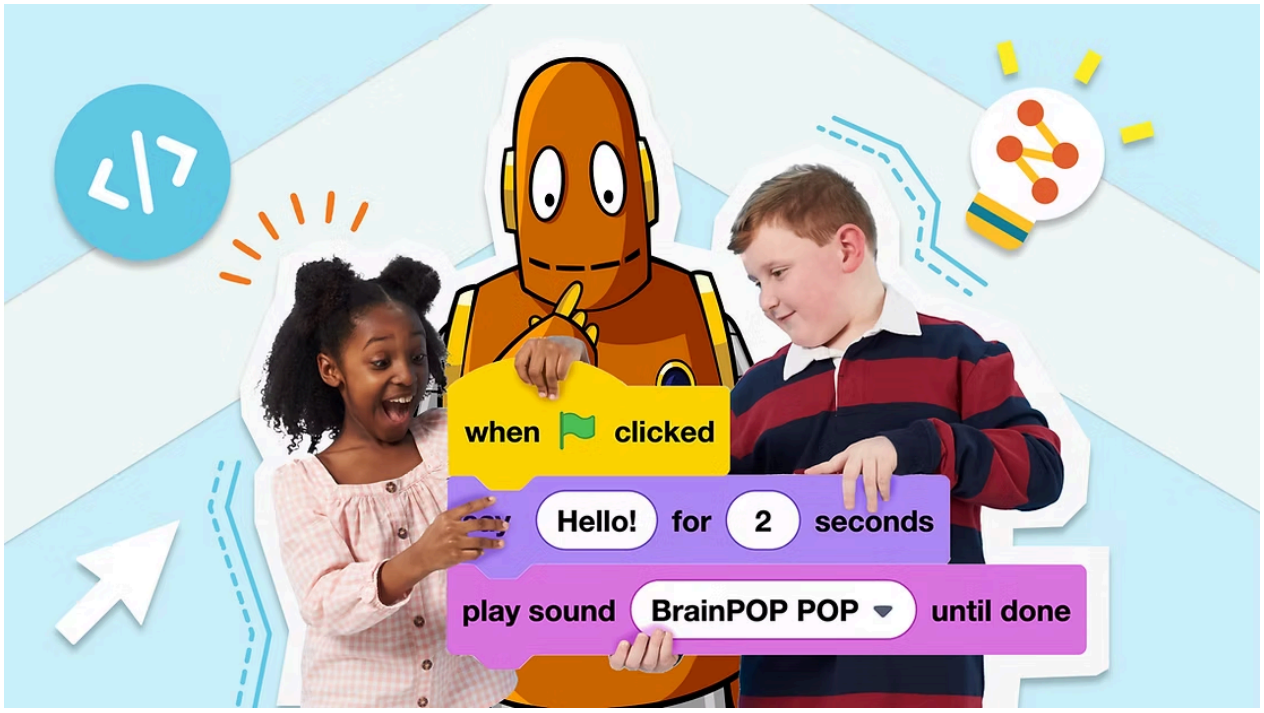
AnnaLiese Burich · Oct 7, 2024 · 3 min read

5 Ways Creative Coding Boosts Your Instruction on BrainPOP



Did you know? A **fan-favorite tool** on BrainPOP is Creative Coding, which lets students use Scratch and Vidcode to build stories, solve puzzles, and complete other engaging projects related to the day's topic—whether you're teaching the Wright brothers or right angles.

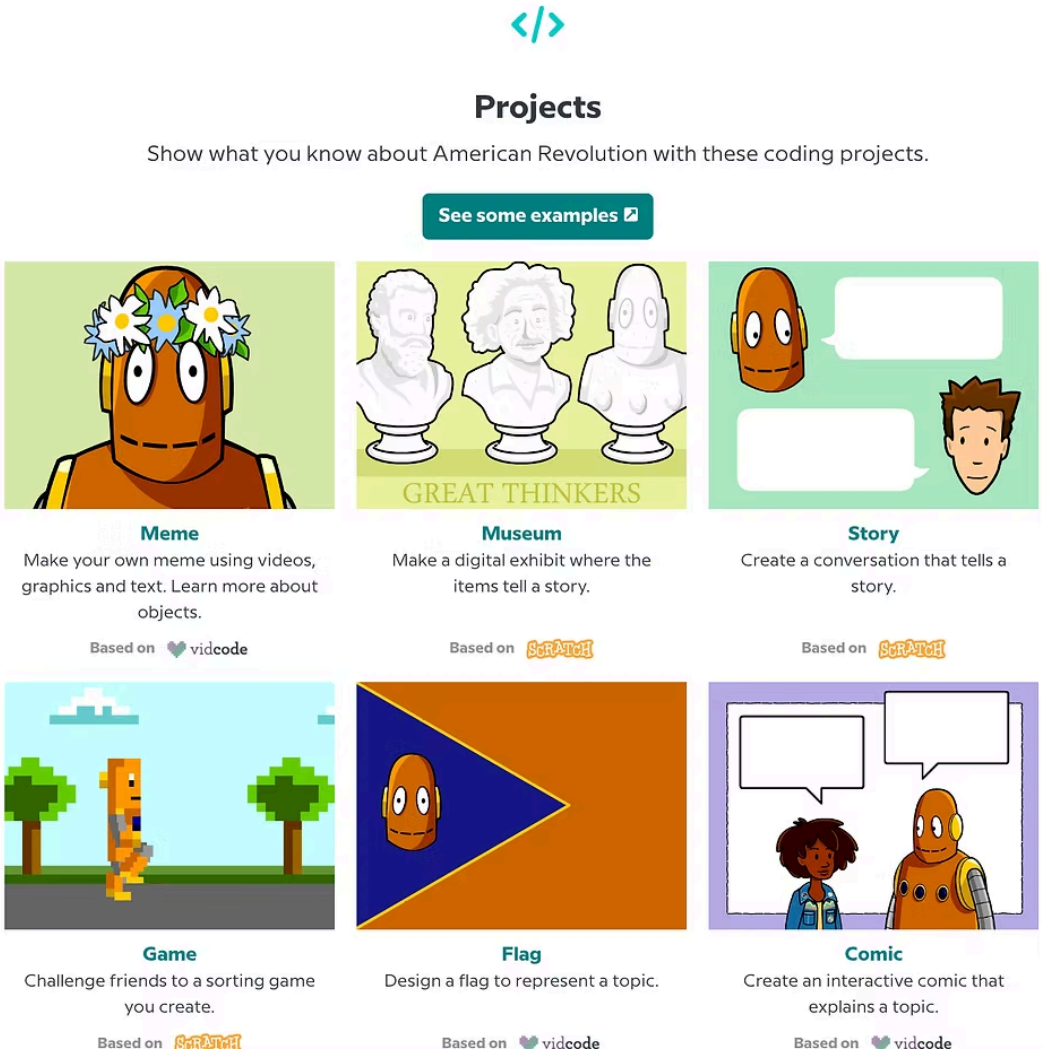
Not sure how to code yourself...let alone teach coding? Don't worry! Each **Creative Coding** project is directly related to a topic that you're already teaching, and—this is key!—no prior

coding experience is necessary. It guides learners through the process, step-by-step, with built-in prompts and scaffolded instruction.

Teachers love it for a reason: in addition to helping you hit those computer literacy and ISTE computational thinking standards, it's full of instructional benefits that'll help your learners comprehend and analyze the content—while building their computational thinking skills and getting them future-ready. That's a lot of impact for one learning activity!

Creative_Coding_Pacing_Guides.pdf
Download PDF • 2.96MB

Now, let's dive into its instructional benefits a little bit deeper.



Creative Coding Helps Students...

Deepen Comprehension of the Content Material

Creative Coding isn't just coding: it's coding projects related to whatever standards-aligned topic you're teaching that day. It's one thing for a student to remember vocabulary words and concepts from the day's topic: it's a whole different level of understanding to use them to create a conversation between the characters, a digital museum, or a digital sorting game (as students are asked to on Creative Coding).

Show What They Know in Creative Ways

With BrainPOP's background knowledge-building movies and other learning activities that deepen vocabulary and comprehension, by the time students get to Creative Coding, they'll be so familiar with the material that they'll be able to activate their higher order thinking skills to complete this project. Their final project will also help you, the teacher, assess their understanding (and ooh and ahh at their creative expression!).

Get Future Ready

It doesn't take an expert to know that the more students know about computer science, technology, and coding, the more prepared they'll be to tackle whatever future innovations and careers will be prevalent by the time they're adults. Creative Coding helps students learn two sets of knowledge and skills at once: their content knowledge (as we discussed above) and their 21st century knowledge. Bonus points if this activity inspires a love of programming and a future career.

Build Computational Thinking Skills

Coding also helps build a very specific type of thinking that helps in a whole lot of situations: computational thinking. Computational thinking skills include:

- Breaking down complex problems into manageable chunks
- Finding patterns
- Identifying what's most important
- Developing step by steps solutions

...all of which help students think critically and problem solve—inside the classroom and out! With its scaffolded instructions, familiar content, and loveable characters guiding students through this new way of thinking, Creative Coding makes computational thinking and problem solving accessible to all learners.

*Build students' background knowledge on Computational Thinking with **BrainPOP Jr.** and **BrainPOP 3-8**!*

Learn to Code

Surprise, surprise...in addition to helping students **code to learn**, Creative Coding actually helps students learn to code! BrainPOP has partnered with Scratch and Vidcode to provide students with two levels of code: block-based and text-based. Learn more about each below:

- **Block-based coding with Scratch:** Available in **BrainPOP Jr.** and **BrainPOP (for grades 3-8)**, beginning coders drag and drop blocks that lock together—like Lego!—and select easy, cause-and-effect based commands that work together to tell a story. All of this helps coding feel accessible and fun, while getting students' problem-solving and computational thinking juices flowing!

- **Text-based coding with Vidcode:** Available in **BrainPOP (for grades 3-8)**, Vidcode is an accessible way for students to enter the world of text-based coding. Students drag and drop visual elements from the BrainPOP movie into a project—and voilà! The Javascript code appears automatically. From there, students can adjust the code to help show what they know and make the project their own.

Download our Creative Coding pacing guides to get started.

Creative_Coding_Pacing_Guides.pdf
Download PDF • 2.96MB

Creative Coding: The Ultimate Multitasker

See what we mean? That's a lot of impact for one learning activity. Creative Coding is the ultimate tool for helping teachers incorporate 21st century skill-building right alongside building content knowledge. Want to learn more about BrainPOP?

AnnaLiese Burich in on the marketing team at BrainPOP. In addition to holding an MA in Magazine Journalism and an MA in English Literature, she has worked in (and written for) the edtech space from every angle: from parenting tips and children's activities to classroom strategies and district goals. AnnaLiese's favorite BrainPOP character is Tim.