

## *Computational Thinking in K-12 Education: Video Collection*

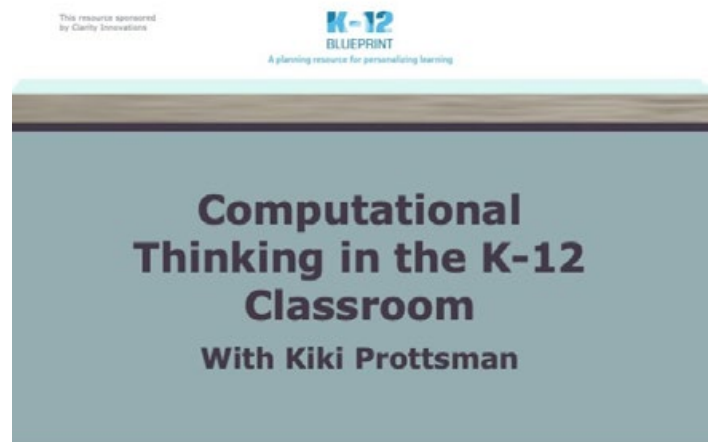


### What is Computational Thinking and Why is it Important?

A concise overview of the term “computational thinking” and its “pillars”, including: decomposition, pattern recognition (and pattern matching), abstraction, and algorithms.

Kiki explains that while the pillars are powerful on their own, together they increase a student’s ability to solve problems exponentially.

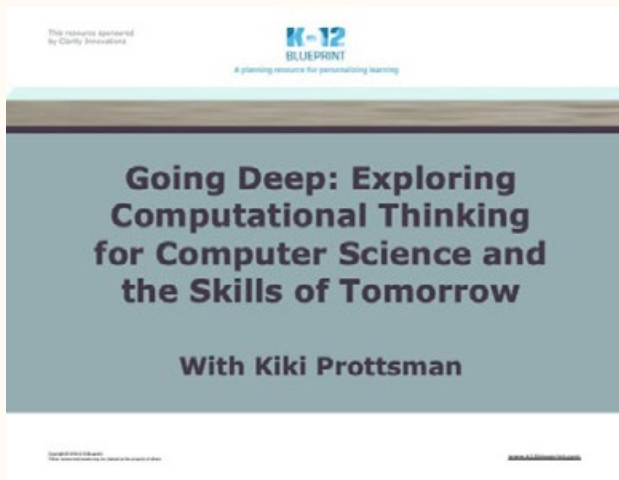
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### Computational Thinking in the K-12 Classroom

A look at examples of how computational thinking ideas show up in unlikely high school subjects—such as Science, Arts, Fitness and Esports—and how this can open up a world of opportunity for students.

[View the video](#)



## Going Deep: Exploring Computational Thinking for Computer Science and the Skills of Tomorrow

Even though computational thinking is not exclusive to computer science, it is definitely a foundation. In this video, Kiki explains the ways that computational thinking is fundamental to the world of technology as a whole.

[View the video](#)

### *About the Presenter*

Kiki Prottzman is the co-author of *Computational Thinking (and Coding) for Every Student*, as well as a computer science educator and a former CS instructor at the University of Oregon. As a champion for responsible computing and equity in both CS employment and education, Kiki works with many organizations to improve the experience of girls and women in STEM.

Her work with the hands-on Traveling Circuits



computer science curriculum helped Thinkersmith receive the 2013 Google RISE Award for excellence in Science and Engineering. More recently, her work with Disney on their "Wayfinding with Moana" tutorial landed her recognition with a Golden Halo Award for Best Education Campaign, and her YouTube channel, KIKIvsIT, helped her win one of Stevie's Female Innovator of the Year awards in 2017.

In addition to *Computational Thinking and Coding for Every Student*, Kiki has written several other books, including *My First Coding Book*, *How to Be a Coder*, and *Disney's Coding with Anna and Elsa*. She currently sits on the Advisory Board for Wonder Workshop Robotics while also playing an advisory role in many STEM grant projects, including SciGirls Code.