



Computational Thinking And Data In The Classroom

Overview

Computational thinking is an essential skill that benefits students across content areas, grade levels, and applications. This session uses high-interest data sets to immerse educators in discovering and applying the skills of computational thinking.

You will brainstorm meaningful ways to incorporate computational thinking skills in your classroom. The session concludes as you develop a personalized computational thinking lesson, which includes target content standards, potential data sets, and instructional sequence(s) that support students' development.

Learning Outcomes

This 3-hour virtual professional development session is designed to support teachers as they

- Guide students through the process of computational thinking.
- Integrate authentic data sets and computational thinking practices into regular instruction with students in support of cross-curricular, project-based learning.

Outline

- Make introductions and set expectations for the session
- Situate computational thinking within CS concepts, practices, and standards
- Experience computational thinking as a learner
- Discover the skills of the computational thinking process
- Explore data sets with data analysis techniques
- Create coding projects to illustrate computational thinking outcomes
- Consider opportunities to nurture cross-curricular connections in CS
- Apply new learning to plan computational thinking lessons in context

What To Expect from Our Virtual PD

Each virtual PD session gives teachers the best of both worlds: the active and collaborative learning of traditional face-to-face sessions, with the convenience afforded by online offerings. A variety of formats and strategies engage participants in making the learning their own. For example, participants may share their thoughts and ideas in interactive polls, chats, or collaborative digital tools. Working in small groups or the 'alone zone', participants construct meaning from their shared experiences. Most importantly, they will always have time to consider - and even plan for - how they will take what they have learned back to their classroom.