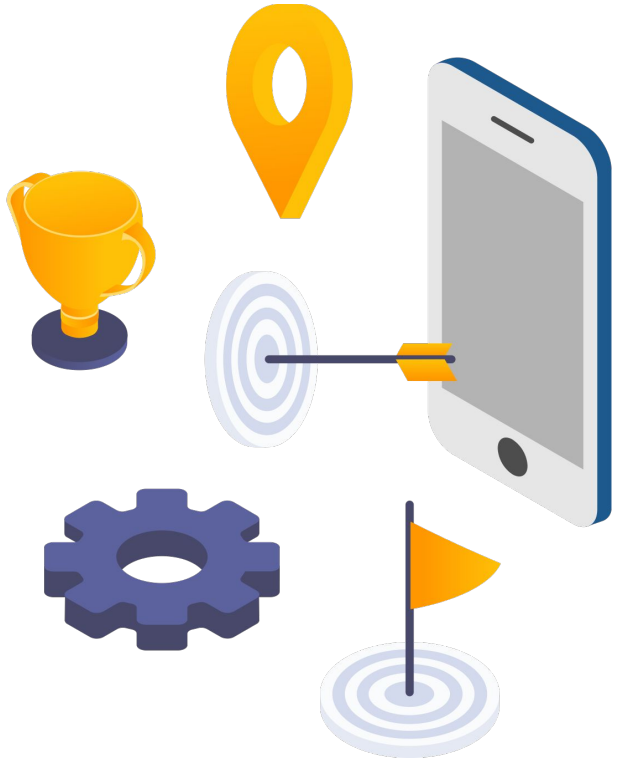
Delivering Virtual K-8 Computing Professional Development in Rural KY



Wed. May 26, 2021
4:00 PM ET

Digital Promise®
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Our Team

Emi Iwatani
Senior Education Researcher,
Digital Promise

Traci Tackett
Director of Digital Literacy,
Bit Source

Quinn Burke
Director, Computational Thinking Research
Digital Promise

Pati Ruiz
Research Scientist, CS Education
Digital Promise

This material is based upon work supported by the National Science Foundation under Grant No. 1923314. Any opinions, findings, and conclusions or recommendations expressed in this material are those of the author(s) and do not necessarily reflect the views of the National Science Foundation.

Tough As Nails, Nimble Fingers (TAN)

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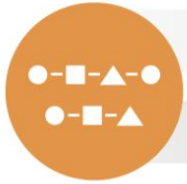
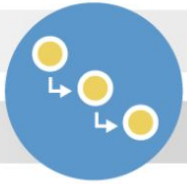
Powerful Learning with Computational Thinking

Computational Skills

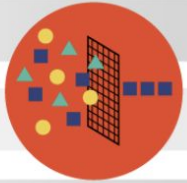


Recognizing recurrent patterns



Organizing steps into a sequence

Dividing problems into smaller parts



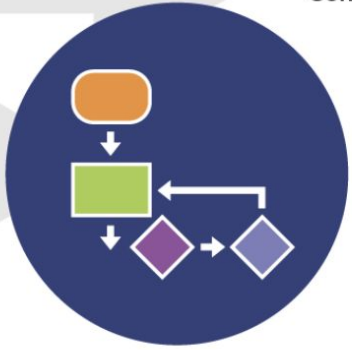
Filtering for what is most important

Iteratively testing, finding errors, and fixing

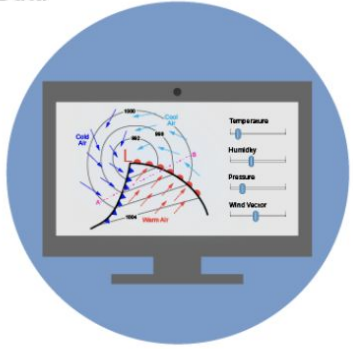
Selecting the right computational tool(s) for the job

Computational Practices

Collecting, Analyzing, and Communicating Data

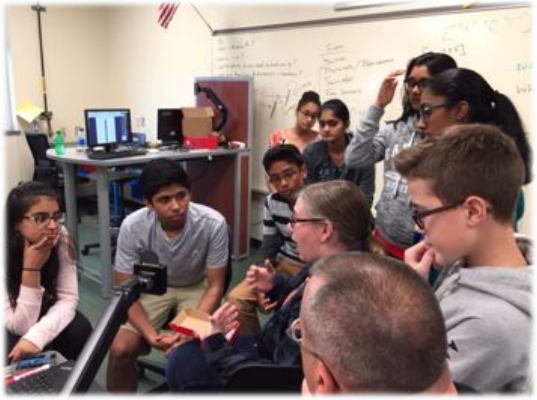


Automating Procedures and Processes



Using Models to Understand Systems

How CT might be taught in schools



Technology & Computer Science in KY

7 Big Ideas of Technology

- Global Collaborator
- Computational Thinker
- Creative Communicator
- Empowered Learner
- Digital Citizen
- Knowledge Constructor
- Innovative Designer

5 Key Concepts of CS

- Networks & the Internet
- Using Algorithms & Programming
- Data Analysis
- Computing Systems
- Impacts of Computing

CT Boosters

4 CT Booster sessions:

- K-2: Data & Analysis: November 10, 2020;
- 3-8: Data & Analysis: November 17, 2020;
- K-2: Algorithms: January 12, 2021;
- 3-8: Algorithms: January 19, 2021.

Slides for all sessions can be found here: http://bit.ly/CTBoosters

CT Booster: Structure

- 5-10 minutes: Introduction & Vocabulary
  - **Guiding Questions** (for example: How do we collect, analyze, and store data to understand relationships in Intermediate and Middle Grades?
- 15-20 minutes: 3-4 Examples
- 2 minutes: Related Micro-credential
- 2-5 minutes: Question & Answer Session

Slides for all sessions can be found here: http://bit.ly/CTBoosters

Questions? Ideas?

4 CT Booster sessions:

- K-2: Data & Analysis: November 10, 2020
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Contact Us

Traci Tackett - traci@bitsourceky.com
Quinn Burke - qburke@digitalpromise.org
Emi Iwatani - eiwatani@digitalpromise.org
Pati Ruiz - pruiz@digitalpromise.org

Thank you for joining today!

This work was supported by the National Science Foundation under grant award #1923314. Any opinions, findings, and conclusions or recommendations expressed in this material are those of the authors and do not necessarily reflect the views of the NSF.

For more information about this work, visit:

http://bit.ly/CTBoosters

https://bit.ly/36szXLy

Micro-credentials:

- Data and Analysis
  - Analyzing and Communicating with Data
  - Collecting and Structuring Data
- Algorithms
  - Creating Algorithms

Data and Analysis

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Vision for CS - Matching Personas to the Why? of CS and CT learning