Fractions + Computational Thinking (with Scratch)

"Learning Trajectories for Everyday Computing" (LTEC) at the Illinois Council of Teachers of Mathematics, Peoria, IL, October 18–19, 2019

Presented by:

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The LTEC Team

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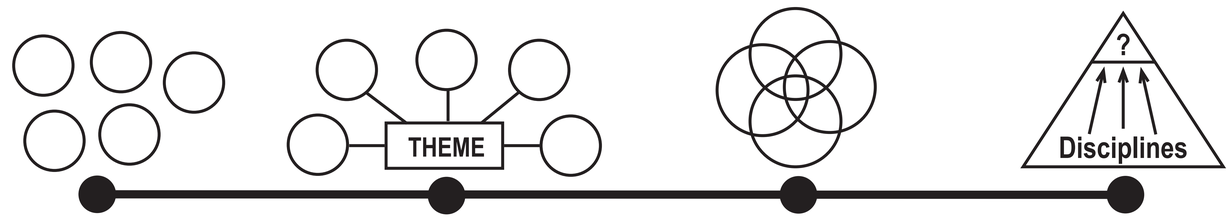
LTEC

- NSF STEM+C research project (awards #1542828 & #1742466)
- Currently in Year 4 of 5
- Developed learning trajectories (LTs) for computational thinking (CT) at the elementary level
- Used those LTs to design, develop, and test a sequence of interdisciplinary math+CT activities for grades 3 and 4
- Activities built using Scratch and a Common Core aligned mathematics curriculum (Everyday Mathematics)
- Testing in small number of G3 & G4 classrooms in 2019–2020

A continuum of integration, adapted from Vasquez, Sneider, and Comer (2013)



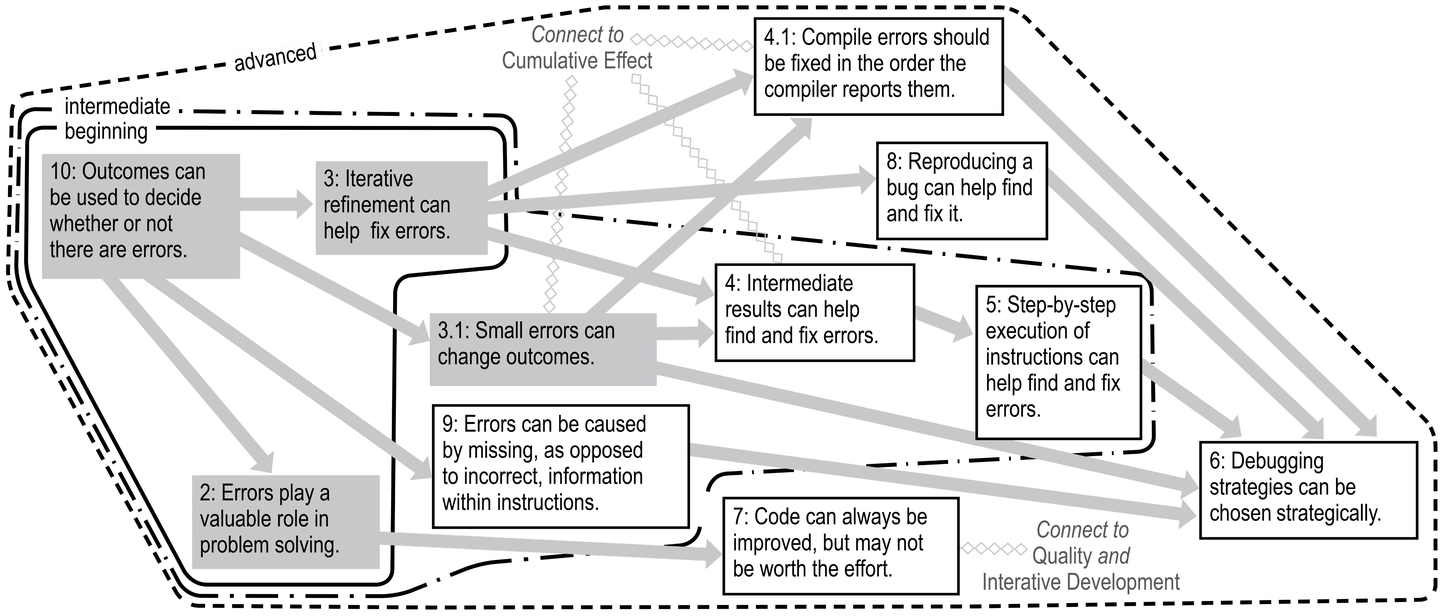
Disciplinary
Skills in each discipline taught separately

Multidisciplinary
Skills in each discipline taught separately but with reference to a common theme

Interdisciplinary
Tightly linked skills from two or more disciplines taught together

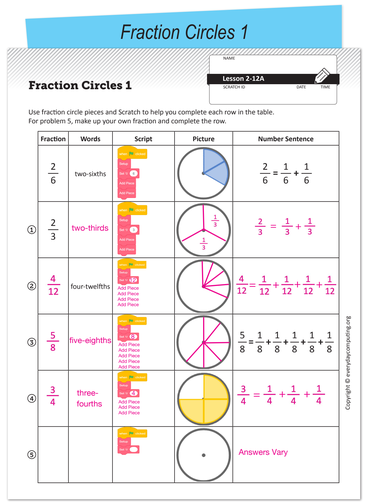
Transdisciplinary
Skills from multiple disciplines applied to a central driving question

Debugging LT



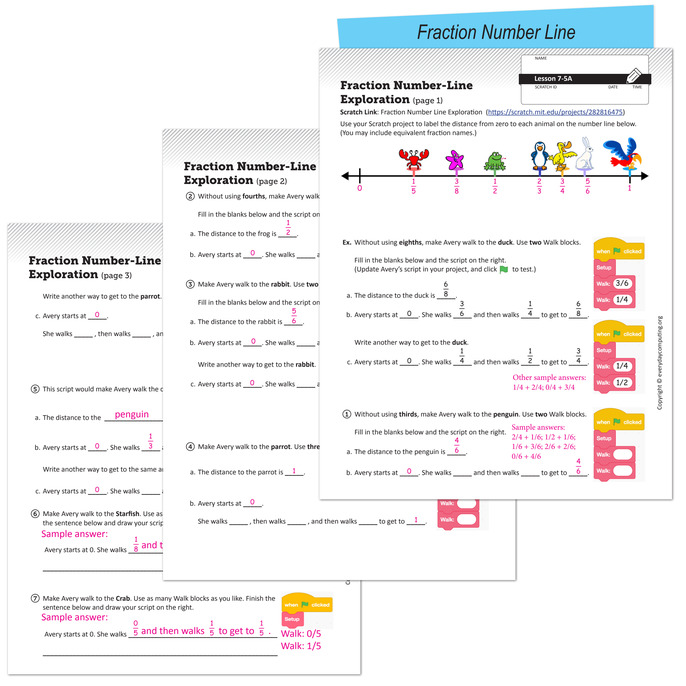
Fraction Circles 1

https://scratch.mit.edu/projects/211001031



Fraction Number Line

https://scratch.mit.edu/projects/282816475



Resources available at:

http://**www.canonlab.org/actionfractionslessons**

LTEC: L*earning* T*rajectories for* E*veryday* C*omputing*
http://**everydaycomputing.org**

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