

# Parsing Parsons Problems for Teaching K-5 Computer Science

## What's going on?

Elementary students already have a variety of important base skills they have to learn. So, while we want to introduce computing at an early age, we don't want to push our students beyond their means. Early research indicates that Parsons Problems may be an effective approach to teach for young students.



## What is it?

Parsons Problems, also known as Parsons Puzzles, is a set of code snippets that are presented out of order. Students as young as 3rd grade are tasked with placing the fragments in the proper order to complete the code. Some have found this to be a useful way to introduce students to Scratch assignments.

## Why does it matter?

Cognitive load can be stretched when learning coding. It is valuable to explore options like Parson's Problems to help find ways to optimize classroom instruction of computing and teach students with as little negative impact on students' cognitive load as possible.



## How to use it?

Consider moving programming away from the computer:

1. Present students with "lines of code" that they then work in pairs to put them in order.
2. Have students explain the order that they have chosen.
3. After, students can then use those lines to test the order in their Scratch program.

Parsing Parsons

Research



Podcast

