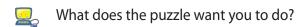# Code.org Puzzle Solving Recipe

(Based on Polya's Four Step Problem Solving Process)

These tips will help you get unstuck when solving Code.org puzzles!

Step 1: Understand the Puzzle

- What does the puzzle want you to do?

- Can you talk about the problem in your own words?

- Were you given any code to start?
  - What does it do?
  - Why do you think it's there?

- What is the goal of the puzzle?

- Have you solved any other puzzles that are like this one?

Step 2: Create a Plan (Pick one or more)

- Write an algorithm.

- Guess and check as you go.

- Draw a picture of what you want to do.

- Try working backward.

- Solve one small piece at a time.

- Compare to a puzzle that you've already solved.

Step 3: Perform and Perfect the Plan

- Did you solve the puzzle?

- If not, hunt for one error at a time.

- Retest your plan after every change.

- If you start to get frustrated, take a deep breath, or leave your screen for a minute. When you come back, you may see what was causing the trouble!

- Ask questions. Maybe one of your friends can help you figure out where your plan goes awry.

Step 4: Check Your Work

- Does your answer solve the puzzle?

- Did you hit all of the goals of this puzzle?

- Now that you one way to solve the puzzle, is there an easier way to do it?

- If you change this solution a little, will it work for any other puzzles?

- Could you explain your solution to help someone else figure out the puzzle?