Objective: Teach students the importance of step-by-step instructions and the concept of an algorithm., emphasizing order, problem solving, and sequencing.

Materials Required:

- Paper
- Writing utensils

Instructions:

1. **Group Students**
   Pair students into groups of 2 or 3.
2. **Prepare Materials**
   Provide each group with 2 pieces of paper and a writing utensil.
3. **Create the Grid**
   On the first piece of paper, have each group draw a 4x6 grid (24 squares).
4. **Mark Obstacles**
   Instruct students to place 6 "X"s on their grid, marking squares that cannot be passed through.
5. **Define the Objective**
   The goal is to create a path from the top-left corner to the bottom-right corner of the grid while avoiding the "X"s.
6. **Write the Algorithm**
   On the second piece of paper, ask each group to write step-by-step instructions for solving their grid. Example:
   "Move two squares down."
   "Move three squares right."
   "Move one square up."
   These instructions simulate an algorithm.
7. **Swap and Solve**
   - Have groups exchange their grids.
   - Each group attempts to solve the new grid using their own approach.
   - Then, swap the written algorithms and see if they match the path created by the other group.
8. **Compare Solutions**
   - Discuss:
     - Did the groups solve the grid the same way?
     - Are there multiple valid solutions?

What it Teaches: How to design a simple task, encouraging them to think about the steps involved, and that there are multiple ways to solve problems.

Sequential Processing: Understanding how each step builds upon the last, a foundational concept in functions and algorithms.