

**Instructions** While building the maze, we attempted moving 2 cells at a time? What would the maze look like when moving a larger number of cells? What would the maze look like if this number was not constant?

- If we move a larger number of cells, the number of spaces will get scarcer. If we move a number of cells greater than both dimensions of the grid, the maze will only contain walls
- If the number of cells is not constant (e.g: we do not move the same number of cells in each direction), the maze looks patchy - some areas have few walls, others have few spaces.

**Instructions** What algorithms could you use to find a path through this maze? Compare and contrast at least 2. How does knowing the algorithm used to generate the maze influence the best algorithm to solve it with?

- **Breadth first search:** can be used to find the shortest path in the maze, if there is a solution
- **Depth first search:** could be used to find all the solutions in a maze, but not necessarily best option to find the shortest path

**Instructions** As a patron picking up swag along the way, how might you best store the list of items you've collected?

- A queue
- A stack

**Instructions** If the farmer asked you to sort the items you collected before leaving the maze, what sorting algorithms would you consider using (assume a much larger list of possible swag)? How does the quantity and variety of swag influence your answer?

- Bubble sort, Quicksort or Merge sort
- The longer the list the longer the run time, and the more variety in the swag the higher the probability of an unsorted list
- For longer lists, I would use quicksort as it has better run time
- For more varied list, I would use Merge sort as the algorithm will take the same amount of time for worst, average and best case scenario