U5LX

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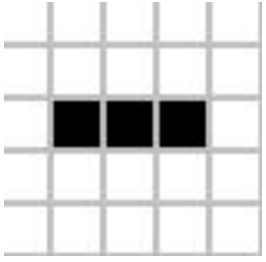
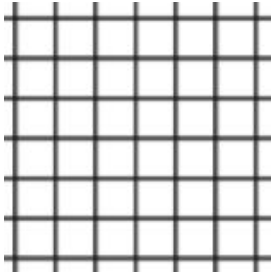
AP CSP

DO NOW: Draw the first pattern on the grid as shown below. Draw grids for gen 1 to 3. You can use X to indicate filled in cell. Draw at least a 5x5 grid.

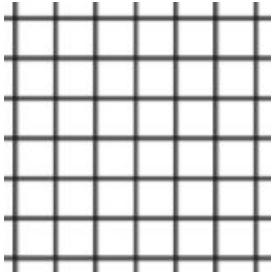
gen 0



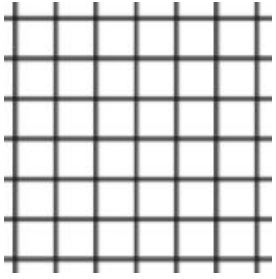
gen 1



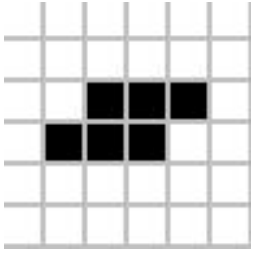
gen 2



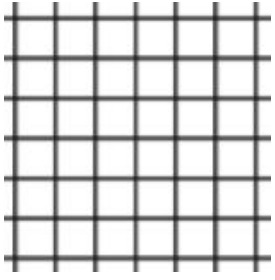
gen 3



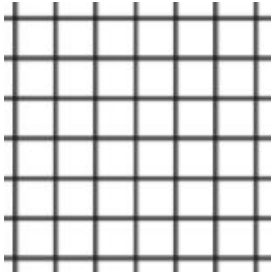
gen 0



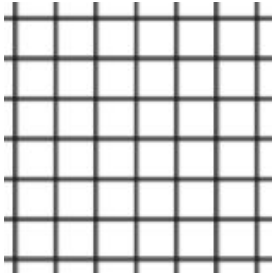
gen 1



gen 2



gen 3



AIM: How do we analyze and express an game algorithm?

SWBAT: Express an algorithm that uses selection without using a programming language

GAME RULES

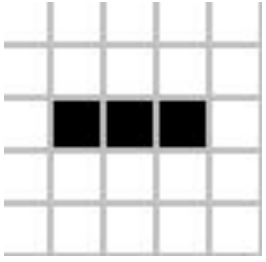
- Any live cell with 2 or 3 live neighbors survives.
- Any dead cell with 3 live neighbors becomes a live cell.
- All other live cells die in the next generation.
- Similarly, all other dead cells stay dead.

HOW TO PLAY THE GAME

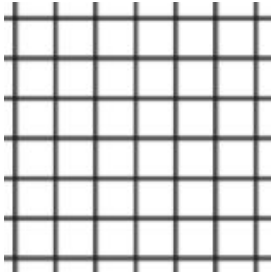
- Live cells are black. Dead cells are white. You can mark with an X if that’s preferable.
- Starting with any one cell, count the number of live cells surrounding the current cell.
- There are 8 cells surrounding any specific cell. If the current cell is on the border of your grid, you can consider that cells outside your grid as dead.
- Use the previous gen (generation) to determine the next gen. For example, to determine the pattern for gen 1, use gen 0.

ACTIVITY PART 1: Draw grids for gen 1 to 3 based on the rules. Write your name and take a picture to record your work

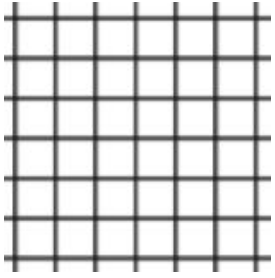
gen 0



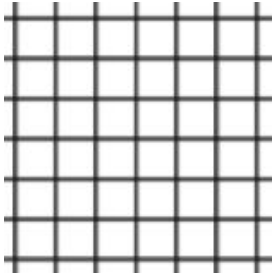
gen 1



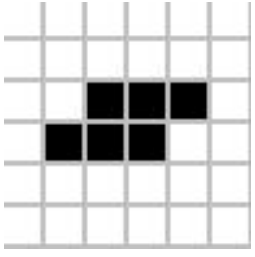
gen 2



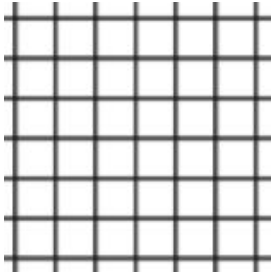
gen 3



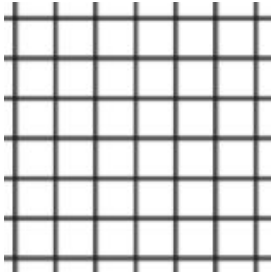
gen 0



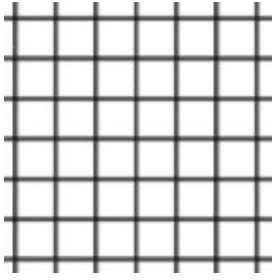
gen 1



gen 2



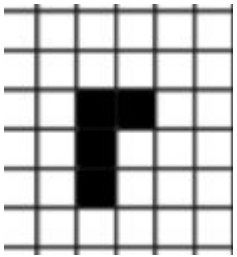
gen 3



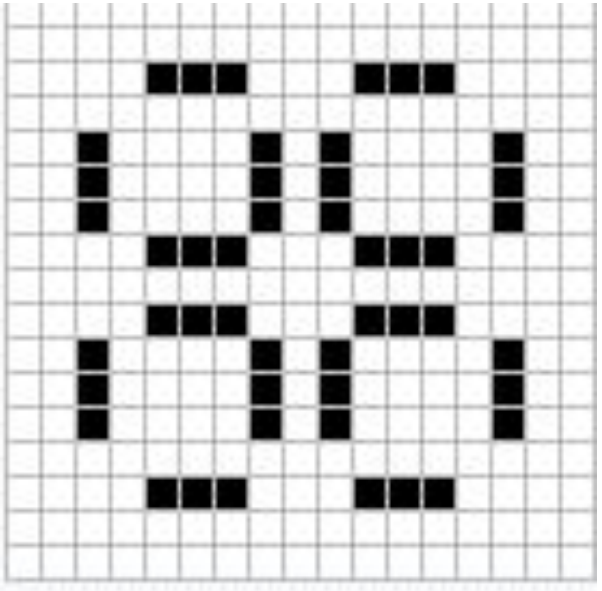
Break between activities for lesson

ACTIVITY PART 2: Complete offline. Reminder to take pictures of your work with your name.

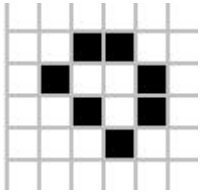
Pattern 3



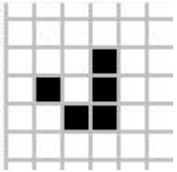
Pattern 4



Pattern 5



Pattern 6
Hint, draw a bigger grid for this than necessary



ACTIVITY PART 2:

- Be prepared to upload pictures of your offline work in a google form at the end of class with your exit ticket.
- Try to submit work for each pattern in just one picture each.

EXIT TIX

Check gClassroom

Be prepared to upload pictures of your offline work.