$\qquad$ DATE: $\qquad$ CLASS PERIOD: $\qquad$

Look at the Game of Life (GoL) example below. On the left, there are three (3) "live" (filled in) squares in Generation 1. The numbers represent how many other live squares are adjacent to each individual live one. The symbols reflect what will happen in the next generation, based on the rules shown in the key.
Make sure you understand this example fully. Ask questions if you are confused.

Generation 1


## RULES \& KEY

a live cell:
a new live cell:
, = Survives (if it touches exactly $2+=$ Is Born (if a "dead" square live squares)
$x=$ Dies (if it touches less than 2 or more than 3 live squares)

Generation 2
 touches exactly 3 live squares)

Activity: Can you predict what will happen? Mark up Generation 1 following the example above. Include counts of neighboring live squares and appropriate symbols " $\times$ ", " $\checkmark$ ", or " + " according to whether a square will die, survive, or be born. Fill in the "live" squares in Generation 2 and repeat. Check the "No live squares" box if all squares are "dead."



6. Generation 0


Generation 1


Generation 3

Generation 4

$r$


## Generation 2



