

# Life Exploration Questions

This applet allows the user to simulate a game that imitates real life.

1. Pick a design such as a glider and use the original rules of the game of life to see if you can follow its steps. Do you see how the pattern repeats itself? How many steps before it repeats? Try this with as many patterns as you would like. Do you see how the patterns work? Now, if you changed the rules of life would these starting patterns yield the same result? Explain.
2. Try to figure out how the eater has to be placed to eat the glider and come out in the same pattern. Does the placement matter? Explain.
3. Pick your favorite pattern. Can you explain how it works? Can you explain why the box pattern is stable? Can you explain how the traffic light works? Explain.

4. Change the rules of the game and see if you can find a new pattern. Can you find one like the glider that continues on forever? Can you find a stable pattern? Can you find a pattern like the traffic light that is always changing but never moving around to board?