patches-own [ 
  live-neighbors 
]

to setup 
  clear-all 
  ask patches [ 
    if random 100 < percent-yellow [ 
      cell-birth 
    ] 
  ] 
  reset-ticks 
end

to go 
  ask patches [ 
    set live-neighbors count neighbors with [ pcolor = yellow ] 
  ] 
  ask patches [ 
    ifelse pcolor = black [ 
      if (live-neighbors = 3) [ 
        cell-birth 
      ] 
    ] 
    [ 
      if (live-neighbors < 2) or (live-neighbors > 3) [ 
        cell-death 
      ] 
    ] 
  ] 
  tick 
end

to cell-birth 
  set pcolor yellow 
end

to cell-death 
  set pcolor black 
end