# Flow Chart for Forest Fire Simulator Program

```
Start
  |
  v
Set up constants:          Define                  Create new forest as      Clear terminal with      Start main loop          Display 'forest'
Width = 79          -->    initial_tree_density, -->'forest' with the    --> bext.clear() for clean -->                  -->
Height = 22                grow_chance,            constants and defined    start
Tree = A                   fire_chance,            parameters
Fire = @                   pause_length
Empty = ' '
                                                                                                              Initialize 'nextForest'
                                                                                                              with the constants,
                                                                                                              width and height

Loop through every X   Already in
and Y cell in 'forest' 'nextForest'?       --Yes-->
                              |
                             No
                              v
                          Empty?  --Yes--> If random ≤
                              |            'grow_chance' grow
                             No            tree
                              v
                          Tree?   --Yes--> if random ≤
                              |            'fire_chance' lightning
                             No            sets this tree on fire
                              v
                          Fire?   --Yes--> Trees have burned
                              |            down, delete it in
                             No            'nextForest'
                              v
                      Copy cell to
                      'nextForest'
                                           All cells
                                           processed?    --Yes-->  Set 'forest' =   --> Pause for       --> Ctrl-C to end program
                                              |                    'nextForest'         'pause_length'
                                             No

                                                                                         End
```