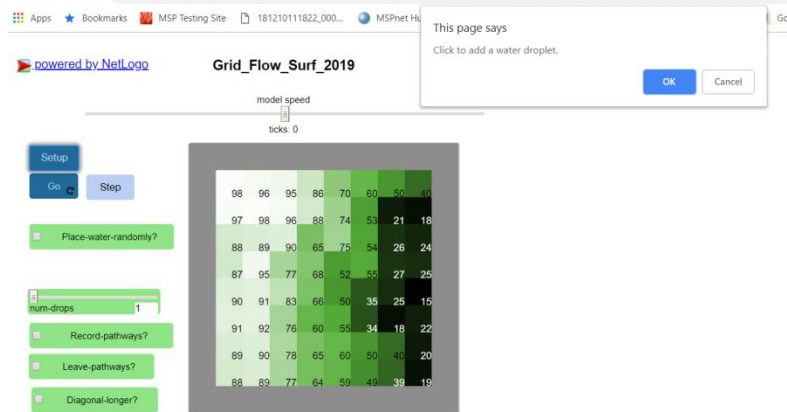


### Floorlandia: NetLogo Computational Model

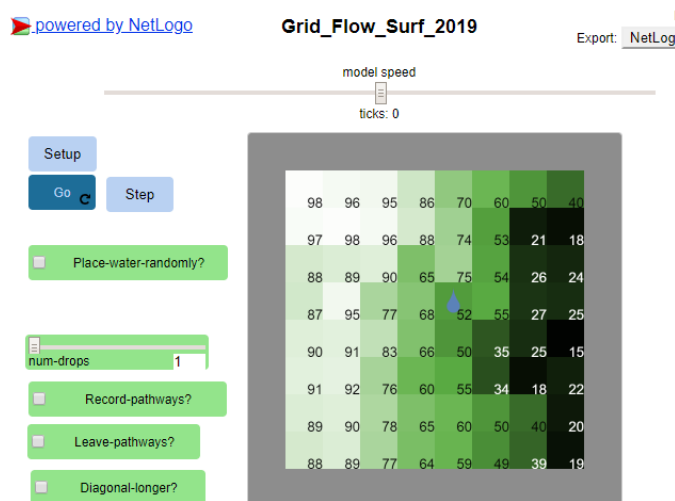
Part I:

You will now see and run a computer simulation of Floorlandia. Use the following instructions:

- Open the NetLogo webpage by double clicking on the "Grid\_Flow\_Surf\_2019" file.
- Click the Setup button. The Floorlandia grid will appear on the screen. This grid is a raster representation of the elevations used in the floor/desktop tile simulation.
- Adjust the switches (click) so that all are OFF and the num-drops slider is equal to 1.
- Click "Go". The software will give a message "Click to add a water droplet".



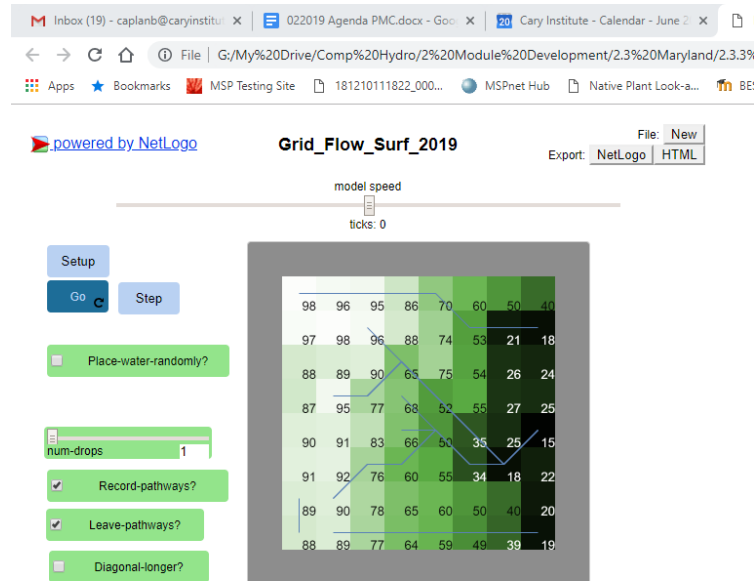
- Click OK, and then click anywhere on the grid. You should see a water droplet image form and then move through the grid.



- Add additional water droplets and observe their motion through the grid.

## Part II:

1. Click the 'Record-Pathways' switch to turn it On.
2. Place a few more water droplets and observe the traced path. Does this help verify the rules you observed?
3. Click the 'Leave-Pathways' switch to turn it On.



4. Turn Off "Leave-Pathways" and then turn it On again to erase the current paths. ('Toggle' is the term to switch it off and then back on again)
5. Now Select "Place-water-randomly" to turn it "On" (note "Go" should continue to be highlighted, if not, click it to make it Go). Observe.

## Questions:

- Can you see watershed boundaries?
  - How well does this model represent the table top version of Floorlandia?
  - How well does this model simulate water flow across a real landscape?
  - Discuss model improvements
6. Complete the Activity 5 Student Pages.