1/25/2021
I found the recovery rate unrealistic and often skewed my data with a higher margin of error just because some infected individuals could instantly recover randomly. To fix this, I added another method called recoveryAssignment which assigned to the person a recovery period of 240 with at most a variance of 40 using a gaussian distribution. The default value for the simulation method has an average period of 240, meaning an individual could at minimum have to wait for 200 frames and at max 280 frames to recover, but will most likely reside around the 240 mark given that 240 frames is the set recovery period. Other than that, I fixed the makeGraph method to have better-looking variables. I believe the majority of my simulation is done being created, I plan to focus on setting up the different simulations that I will run with masks, population sizes, infection radius, etc.

1/29/2021
I worked mainly on paperwork and the abstract, including setting up my bibliography. I filled out forms 1A, 1B, and 1 and got all the signatures I needed. The rest of my time was writing the abstract just to have it done, as I believe the due date for the abstract is a couple of days from now.

2/2/2021
Apparently, there was an issue with the science fair forms that I filled out so I spent roughly an hour fixing the mistakes on 1B (where I forgot to sign my name), correcting the parent permission date, and reordering my forms. I have not completed the abstract yet, but I have a viable summary ready that would make filling out the abstract very easy. Also the experiments method used radiusX, radiusY, and radiusZ for all experiments which is misleading as there is only one experiment with a changing radius so all of those variables were saved as dX, dY, and dZ to be easier to read and represent the data better.

2/4/2021
I worked on the experiments method to add a for loop that will run the experiments as many times as desired and average the final results, to have less sporadic changes within my data. I didn't fully complete it, as I need to write the code to average the collected data, but everything else on that subject is done. When the code is completed, I plan to run the experiments 100 times to have non-sporadic data, but still be able to collect data in less than 12 hours.

2/5/2021
I created a draft abstract form and decided for sure what all experiments I want to run and how I would like to represent them. I settled on simulations that varied the spread radiuses, the infection chance, the required recovery period, and the use of masks. I also made a simulation flow chart and gathered sample images of what a simulation with a lot of infected individuals, a lot of susceptible individuals, and a lot of recovered individuals looked like. Furthermore, It appears the mask part of the expose method was not working properly so I quickly fixed it by taking the infectionRate and multiplied it by the maskProtectChance and maskSpreadChance given the individuals were wearing them.