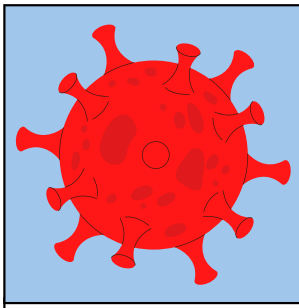

DELINEO COVID-19 SIMULATION

Name:	Date:

Background Information

- When dealing with an infectious disease, there are two relevant sets of variables that can affect the spread and severity. The **first** is about the virus itself, some examples of these variables include the mode of spread, the infection rate, risk factors, and origin. Once an infectious disease is exposed to a population and begins to spread, however, the spread can be slowed or accelerated by the actions of said population. These variables are the **second** group that the Delineo Anytown, USA simulation measures, and by adjusting those variables we can see the different ways the disease spreads.

- When it comes to airborne diseases, the spread is highly dependent on the level of contact between infected individuals and the rest of the population. People get sick by inhaling, ingesting, or absorbing disease particles. The variables in the simulation affect how much contact the population has with each other and, subsequently, disease particles.

Knowledge Check	Public Health Interventions
When it comes to Covid-19, what are the variables that affect spread and severity listed above? _	• Mask mandates • Capacity restrictions • Daily testing capacity • Contact tracing level • Vaccinated population • Stay-at-home orders **Bonus:** what other interventions have you seen implemented in your area? Can you think of any new ideas?

Activity

In this activity, we're going to be measuring how different interventions and public health measures affect the spread of covid.

1. **Choose** two variables that you think will have the biggest effect on the spread. Explain why.
2. **Run** the simulation with each of the following settings. Keep track of the results after 'two months' have passed in Anytown.
    a. Toggle the two variables you choose to 75% and leave the rest of the sliders on the default level
    b. Toggle the two variables you choose to 100% and leave the rest of the sliders on the default level
    c. Toggle one of your variables to 100% and leave the rest of the sliders on the default level
    d. Toggle two DIFFERENT variables to 100% and leave the rest of the sliders on the default level
3. **Compare** your results. What was the most effective intervention?

Food for thought	Think about your results
If you were Mayor of Anytown, what would you take into consideration when coming up with a covid response plan?	Was there anything surprising in your results? What would you do differently if you did the activity again?