

Guiding Questions for each Mini Learning Cycle

Learning Cycle 1:

- What are the (one, two, etc.) major differences between the plant cell and the animal cell?
- What structures make the bacterial cell unique? Animal cell? Plant cell?
- How do those structures play a role (or not play a role) in the spread of disease?
- Which cell type do you think spreads disease? Why? What is your evidence?

Learning Cycle 2:

- How do bacteria and viruses differ in structure? In size? In function?
- Do bacteria and viruses have anything in common? What evidence supports your claim?
- Can you explain your thinking to me?

Learning Cycle 3:

- During the introduction of Learning Cycle 3, the teacher can ask students to make predictions about how they think viruses and bacteria infect people and are transmitted through populations.

Specific to each simulation:

- How did the disease spread? What is your evidence for how the disease spread?
- What caused the prevention of the disease? How do you know?
- How did the epidemiologists use the clues to determine the source of the outbreak?

Differentiation:

- Students with learning needs could benefit from added scaffolding and sentence starters to develop student argumentation. The scaffolded Data Sheets could be used for students who need extra support. The Data sheets could also be modified further to include sentence starters for the student claims and will give the students more direction on what type of evidence they should collect (see data sheets).