

Cornell Guided Notes

Principles of Biomedical Technology (Principles of Biomedical Science) | 2026-11-18

Name

Period

Date

Lesson

Lesson focus

Outbreak data and agent ID lab

Key words and questions

Prepared details and student notes

Essential question
What is today's target?

Students build outbreak visualizations and run identification tests to characterize the infectious agent. Big idea: Outbreak investigation is applied science: you turn a line list into a curve, a map, and a narrowed agent list before you can recommend a control.

My notes, examples, and questions

Key words
What vocabulary unlocks the lesson?

- epidemiology
- line list
- epidemic curve
- incubation
- prevalence
- incidence
- causative agent

My notes, examples, and questions

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Cornell Notes - Continued

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Must-know ideas
What should I understand by the end?

- Independent variable: the case data provided; dependent variable: the epidemic curve shape and agent-ID result.
- Plotting a spot map requires converting addresses or zones into a visual cluster to reveal a common source.
- Agent-identification tests each detect a specific pathogen property: morphology, biochemical profile, or antigen.

My notes, examples, and questions

Process notes
What happens during class?

- 0-8 min: Review SOP for line-list completion and test-result recording; write it in your notebook.
- 8-15 min: Identify and record independent variable, dependent variable, and controlled variables.
- 15-38 min: Complete line list from case data; plot epidemic curve on graph paper or provided template.
- 38-52 min: Plot spot map; identify geographic cluster.
- 52-68 min: Run or interpret agent-identification test results; record candidate pathogens in data table.
- 68-80 min: Record one measurement error source and one data-set limitation; begin organizing for Thursday CER.

My notes, examples, and questions

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Steps and evidence What do I do and turn in?

- Record the SOP for completing the line list and recording test results.
- Identify the independent and dependent variables in the agent-ID procedure.
- Plot an epidemic curve and a spot map from the provided case data.
- Run or interpret the identification test results to narrow the candidate agent.
- Note sources of measurement error and one limitation of the data set.

Evidence: Data table - Completed data table with line-list summary, plotted epidemic curve (labeled with transmission type), spot-map cluster description, agent-ID results, and one stated measurement error.

My notes, examples, and questions

Checks for understanding How do I know I got it?

- Produce an accurate epidemic curve and map from the line list.
- Narrow the infectious agent and state one procedural limitation.

My notes, examples, and questions

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Cornell Notes - Continued

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Lab or safety notes
What must I handle carefully?

Safety:

- If using simulated biological samples, wear gloves and avoid touching face.
- Dispose of all simulated sample materials in the designated waste container, not the regular trash.
- Wash hands thoroughly with soap and water after handling any lab materials.
- Keep all printed case data at your station; do not share papers between stations to prevent data contamination.

Supplies:

- Printed line-list case data set (one per student or pair)
- Graph paper or epidemic curve template
- Spot-map grid or blank map of the scenario area
- Agent-identification test materials or printed test-result cards
- Colored pencils or markers for curve and map plotting
- Ruler
- Pencil or pen

My notes, examples, and questions

Summary

Today's lesson focused on Outbreak data and agent ID lab. The main target was: Students build outbreak visualizations and run identification tests to characterize the infectious agent. The evidence of learning is Data table: Completed data table with line-list summary, plotted epidemic curve (labeled with transmission type), spot-map cluster description, agent-ID results, and one stated measurement error.. In my own words, the most important idea from today is:

My summary

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My final question or connection