

Cornell Guided Notes

Principles of Biomedical Technology (Principles of Biomedical Science) | 2026-09-11

Name

Period

Date

Lesson

Lesson focus

Analyze tox results

Key words and questions

Prepared details and student notes

Essential question
What is today's target?

Interpret biomolecule and toxicology data with a CER and assess method limitations. Big idea: Interpreting test results requires comparing unknowns against controls, not trusting a color change in isolation.

My notes, examples, and questions

Key words
What vocabulary unlocks the lesson?

- biomolecule
- macromolecule
- toxicology
- tissue
- autopsy
- cause of death
- manner of death

My notes, examples, and questions

Cornell Guided Notes

Principles of Biomedical Technology (Principles of Biomedical Science) | 2026-09-11

Cornell Notes - Continued

Key words and questions

Prepared details and student notes

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

- An unknown result is interpreted as positive only if it matches the positive control and differs from the negative control.
- A dose-response relationship shows that as concentration increases, the measured effect increases; a threshold is the concentration below which no measurable effect appears.
- Common sources of false positives in indicator tests include cross-contamination between tubes, using the wrong reagent concentration, and interference from pigments in the sample.

My notes, examples, and questions

Process notes
What happens during class?

- 0:00: Return Wednesday data tables; identify any groups whose negative control showed a color change (class discussion of what that means)
- 0:12: Walk through interpretation logic: positive control matched, negative control flat, unknown matches positive = positive result
- 0:25: Students interpret their unknown results, noting biomolecules present or absent for each sample
- 0:40: Analyze dilution series: describe the dose-response trend in words; identify threshold if visible
- 0:55: CER writing: claim (which biomolecules present), evidence (data table), reasoning (comparison to controls)
- 1:10: List two false-positive sources and one limitation of indicator tests; preview Friday submission

My notes, examples, and questions

Cornell Guided Notes

Principles of Biomedical Technology (Principles of Biomedical Science) | 2026-09-11

Cornell Notes - Continued

Key words and questions

Prepared details and student notes

Steps and evidence What do I do and turn in?

- Compare unknown-sample results to your control results.
- Write a CER: which biomolecules are present in each unknown?
- Analyze the dose-response trend in your toxicology dilution data.
- Identify two variables that could produce a false positive.
- State one limitation of indicator tests for forensic conclusions.

Evidence: CER - CER stating which biomolecules are present in each unknown, using Wednesday's data table as evidence and citing comparison to positive and negative controls in the reasoning.

My notes, examples, and questions

Checks for understanding How do I know I got it?

- I can interpret indicator results against controls.
- I can describe a dose-response trend and its limits.

My notes, examples, and questions

Lab or safety notes What must I handle carefully?

No special lab safety notes today. Follow normal classroom and digital-work expectations.

My notes, examples, and questions

Cornell Guided Notes

Principles of Biomedical Technology (Principles of Biomedical Science) | 2026-09-11

Cornell Notes - Continued

Summary

Today's lesson focused on Analyze tox results. The main target was: Interpret biomolecule and toxicology data with a CER and assess method limitations. The evidence of learning is CER: CER stating which biomolecules are present in each unknown, using Wednesday's data table as evidence and citing comparison to positive and negative controls in the reasoning.. In my own words, the most important idea from today is:

My summary

My final question or connection