

Cornell Guided Notes

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

Name

Period

Date

Lesson

Lesson focus

Biomolecules and design

Key words and questions

Prepared details and student notes

Essential question
What is today's target?

Identify the four biomolecules and outline an experimental design before the PLTW evidence task. Big idea: Indicator tests detect specific biomolecules because each molecule reacts uniquely with a chemical reagent, producing a visible color change.

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

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Cornell Notes - Continued

Key words and questions

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

- The four biomolecules are carbohydrates, lipids, proteins, and nucleic acids; each has a specific indicator test (e.g., Benedict's for reducing sugars, Lugol's for starch, Biuret for protein, Sudan IV for lipids).
- A positive control contains the substance being tested; a negative control does not. Both are required to validate indicator results.
- In a toxicology dilution series, the independent variable is concentration and the dependent variable is the measured effect.

My notes, examples, and questions

Process notes
What happens during class?

- 0:00: Quick warm-up: name four things you ate yesterday; which biomolecule category does each belong to?
- 0:08: Teacher-led notes: four biomolecules, indicator test for each, positive vs. negative result interpretation
- 0:28: Experimental design practice: label independent, dependent, and controlled variables for a food-test scenario
- 0:42: myPLTW: complete the evidence-testing online task and toxicology introduction section
- 1:02: Write a hypothesis for one biomolecule test: state the expected color change and the reason
- 1:10: Exit: which indicator test has the highest risk of a false positive and why?

My notes, examples, and questions

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Cornell Notes - Continued

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Steps and evidence What do I do and turn in?

- Take notes on carbohydrates, lipids, proteins, and nucleic acids and their tests.
- Review how a positive vs. negative indicator result is read.
- Define independent, dependent, and controlled variables for a food-test design.
- Complete the PLTW evidence-testing online task and toxicology intro.
- Write a hypothesis for one biomolecule test you will run.

Evidence: Pre-lab - Pre-lab design sheet: a table listing each of the four biomolecule tests with the indicator used, the positive result color, and the negative result color; plus a written hypothesis for one test.

My notes, examples, and questions

Checks for understanding How do I know I got it?

- I can name the four biomolecules and one test for each.
- I can label the variables in an experimental design.

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

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Cornell Notes - Continued

Summary

Today's lesson focused on Biomolecules and design. The main target was: Identify the four biomolecules and outline an experimental design before the PLTW evidence task. The evidence of learning is Pre-lab: Pre-lab design sheet: a table listing each of the four biomolecule tests with the indicator used, the positive result color, and the negative result color; plus a written hypothesis for one test.. In my own words, the most important idea from today is:

My summary

My final question or connection