Cornell Guided Notes

Genetics of Disease (Medical Interventions) | 2027-02-11

Name	Period	Date	Lesson
		2027-02-11	

Lesson focus

Dilution and ELISA model submission

Key words and questions	Prepared details and student notes

Essential question
What is today's target?

Submit your standard curve, model ELISA data, and interpretation to close the dilution week. Big idea: How do scientists document a quantitative lab result so it can be reviewed, replicated, and trusted?

My notes, examples, and questions

Key words
What vocabulary unlocks the lesson?

- antigen
- antibody
- ELISA
- serial dilution
- standard curve
- substrate
- absorbance

My notes, examples, and questions

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Cornell Notes - Continued

Key words and questions	Prepared details and student notes
Must-know ideas **What should I understand by the end?**	- A complete submission packages the visual evidence (graph), the raw data (table), and the interpretation together. - Naming a source of error is part of good science; it shows you understand the limits of your own data. - Reviewing your model data before the wet ELISA helps you anticipate where precision matters most. **My notes, examples, and questions**
Process notes **What happens during class?**	- 0-15 min: Finalize the standard-curve graph: check axis labels, units, and best-fit line - 15-30 min: Complete the data table: well ID, observed color, assigned concentration for every well - 30-50 min: Write the interpretation paragraph: name positive results and explain the evidence from the curve - 50-62 min: Write the error sentence: name one specific source of uncertainty in reading colors by eye - 62-72 min: Submit graph, data table, and interpretation to the course shell - 72-80 min: Confirm all items show as turned in; note one thing to do more carefully in the wet lab next week **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?**	- Finalize your standard-curve graph and label the axes clearly. - Tabulate your model ELISA colors and the concentration you assigned each well. - Write a short interpretation naming which samples were positive and how you knew. - Add one sentence on a source of error in reading colors by eye. - Submit your graph, data table, and interpretation in the PLTW course shell. - Confirm it is turned in and note one thing you want to do more carefully in the wet lab. Evidence: Lab report - Standard curve graph, model ELISA data table (colors and concentrations), short interpretation of positive results, and one error sentence. **My notes, examples, and questions**
Checks for understanding **How do I know I got it?**	- You will be able to submit a labeled standard curve and ELISA data. - You will be able to interpret model results against a curve. - You will be able to name a source of measurement error. **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?**	Supplies: - Micropipettes and tips - Microcentrifuge tubes or microplate - Stock antigen solution - Buffer or diluent - Microplate or tube rack - Lab notebook for the dilution table **My notes, examples, and questions**

Summary

Today's lesson focused on Dilution and ELISA model submission. The main target was: Submit your standard curve, model ELISA data, and interpretation to close the dilution week. The evidence of learning is Lab report: Standard curve graph, model ELISA data table (colors and concentrations), short interpretation of positive results, and one error sentence.. In my own words, the most important idea from today is:

My summary

My final question or connection