Cornell Guided Notes

Principles of Biomedical Technology (Principles of Biomedical Science) | 2026-10-26

Name	Period	Date	Lesson
		2026-10-26	

Lesson focus

Pedigree and risk CER

Key words and questions	Prepared details and student notes
Essential question **What is today's target?**	Students construct a CER linking pedigree evidence to a calculated genetic risk for an offspring. Big idea: A pedigree is a family data set: when you combine it with a Punnett square you can quantify genetic risk rather than just estimate it. **My notes, examples, and questions**
Key words **What vocabulary unlocks the lesson?**	- karyotype - inheritance - genotype - phenotype - carrier - pedigree - genetic risk **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?**	- Standard pedigree symbols encode sex, affected status, and carrier status across generations. - A Punnett square converts inheritance pattern and parental genotypes into offspring probabilities. - A CER requires a quantitative claim, specific pedigree evidence, and a stated assumption or limitation. **My notes, examples, and questions**
Process notes **What happens during class?**	- 0-8 min: Warm-up: draw pedigree symbols for affected male, carrier female, unaffected female. - 8-25 min: Build the two-generation pedigree from the case history; label carriers. - 25-40 min: Trace inheritance pattern; set up and complete the Punnett square. - 40-60 min: Write the CER: claim with % risk, pedigree + Punnett square evidence, reasoning. - 60-72 min: Add one assumption and one limitation to the CER reasoning section. - 72-80 min: Peer review: swap and check that claim is quantitative and evidence is cited. **My notes, examples, and questions**

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Steps and evidence **What do I do and turn in?**	- Build a pedigree from the case history using standard symbols for sex and affected status. - Trace the inheritance pattern and label carriers across two generations. - Use a Punnett square to estimate the probability that the next child is affected. - Write a claim stating the genetic risk for the couple. - Support the claim with pedigree evidence and reasoning that names assumptions and limitations. Evidence: CER - Written CER with a quantitative genetic-risk claim, pedigree and Punnett square evidence, and at least one stated limitation. **My notes, examples, and questions**
Checks for understanding **How do I know I got it?**	- Calculate offspring risk consistent with the pedigree and inheritance pattern. - Write a CER with claim, quantitative evidence, and reasoning that cites at least one limitation. **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 Pedigree and risk CER. The main target was: Students construct a CER linking pedigree evidence to a calculated genetic risk for an offspring. The evidence of learning is CER: Written CER with a quantitative genetic-risk claim, pedigree and Punnett square evidence, and at least one stated limitation.. In my own words, the most important idea from today is:

My summary

My final question or connection