Cornell Guided Notes

Genetics of Disease (Medical Interventions) | 2027-04-20

Name	Period	Date	Lesson
		2027-04-20	

Lesson focus

Chemo and radiation

Key words and questions	Prepared details and student notes
Essential question **What is today's target?**	Compare how chemotherapy and radiation kill cancer cells and why each causes side effects. Big idea: Killing cancer cells means disrupting cell division, which always risks collateral damage to healthy tissue. **My notes, examples, and questions**
Key words **What vocabulary unlocks the lesson?**	- biopsy - staging - chemotherapy - radiation - targeted therapy - apoptosis - side effect **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?**	- Chemotherapy circulates systemically and targets any rapidly dividing cell. - Radiation delivers focused ionizing energy to damage DNA in a defined tumor volume. - Side effects correlate directly to which fast-dividing healthy tissues are caught in the treatment field. **My notes, examples, and questions**
Process notes **What happens during class?**	- 0-8: Read treatment notes; define apoptosis in margin - 8-25: Draw chemotherapy mechanism diagram (systemic, fast-dividers) - 25-40: Draw radiation mechanism diagram (targeted, DNA damage) - 40-55: List two side effects each; link to healthy tissue type - 55-72: Write CER paragraph: chemo vs. radiation for a localized tumor - 72-80: Peer review CER structure; submit **My notes, examples, and questions**

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Key words and questions	Prepared details and student notes
Steps and evidence **What do I do and turn in?**	- Read the treatment-mechanism notes in the PLTW course shell and define apoptosis. - Diagram how chemotherapy targets fast-dividing cells throughout the body. - Diagram how radiation damages cell DNA in a targeted area. - List two common side effects for each and tie them to healthy fast-dividing tissue. - Write a CER paragraph claiming which treatment fits a localized tumor and why. Evidence: CER - CER paragraph arguing which treatment (chemo or radiation) is more appropriate for a localized tumor, with apoptosis and side-effect evidence. **My notes, examples, and questions**
Checks for understanding **How do I know I got it?**	- You'll be able to contrast the mechanisms of chemotherapy and radiation. - You'll be able to explain side effects using apoptosis and healthy-cell damage. **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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Summary

Today's lesson focused on Chemo and radiation. The main target was: Compare how chemotherapy and radiation kill cancer cells and why each causes side effects. The evidence of learning is CER: CER paragraph arguing which treatment (chemo or radiation) is more appropriate for a localized tumor, with apoptosis and side-effect evidence.. In my own words, the most important idea from today is:

My summary

My final question or connection