Cornell Guided Notes

Human Anatomy & Physiology (Human Body Systems) | 2027-02-05

Name	Period	Date	Lesson
		2027-02-05	

Lesson focus

Bone repair and repair tech

Key words and questions	Prepared details and student notes
Essential question **What is today's target?**	Explain the stages of bone repair and evaluate one repair technology with a CER. Big idea: Bone repair follows a predictable four-stage process driven by the same cells studied Tuesday; technology choices depend on fracture severity. **My notes, examples, and questions**
Key words **What vocabulary unlocks the lesson?**	- osteoblast - osteoclast - compact bone - spongy bone - fracture - joint - ligament **My notes, examples, and questions**

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Cornell Notes - Continued

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Must-know ideas **What should I understand by the end?**	- The four stages of bone repair: hematoma formation, fibrocartilaginous callus (soft callus), bony callus (hard callus), and bone remodeling. - Osteoblasts are most active during callus formation; osteoclasts dominate the remodeling stage. - Repair technologies range from immobilization (casting/splinting) to internal fixation (plates, screws, rods) to biological augmentation (bone graft). **My notes, examples, and questions**
Process notes **What happens during class?**	- 0-8: Intro: connect Tuesday cells to repair stages - 8-25: Notes: four repair stages with cell activity at each - 25-45: PLTW task: research one repair technology - 45-62: Draw and label repair-stage timeline diagram - 62-75: Write CER: when is your chosen technology the best choice? - 75-80: Submit diagram and CER; preview Friday evidence day **My notes, examples, and questions**

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Steps and evidence **What do I do and turn in?**	- Read the notes on the bone-healing stages: hematoma, soft callus, hard callus, remodeling. - Match each stage to the bone cells most active during it. - Research one repair technology (casting, plates, or bone graft) from the PLTW task. - Write a CER claiming when that technology is the best choice. - Submit your repair-stage diagram and technology CER. Evidence: CER - Repair-stage timeline diagram (four stages with active cells labeled) plus a CER arguing when a specific repair technology is the best choice. **My notes, examples, and questions**
Checks for understanding **How do I know I got it?**	- You can sequence the stages of bone repair. - You can justify when a given repair technology is appropriate. **My notes, examples, and questions**

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Lab or safety notes
What must I handle carefully?

Supplies:
- Articulated skeleton or bone model
- Cross-section bone sample or image set
- Fracture radiograph image set
- Metric ruler
- Lab notebook
- Safety goggles

My notes, examples, and questions

Summary

Today's lesson focused on Bone repair and repair tech. The main target was: Explain the stages of bone repair and evaluate one repair technology with a CER. The evidence of learning is CER: Repair-stage timeline diagram (four stages with active cells labeled) plus a CER arguing when a specific repair technology is the best choice.. In my own words, the most important idea from today is:

My summary

My final question or connection