Cornell Guided Notes

Human Anatomy & Physiology (Human Body Systems) | 2026-09-11

Name	Period	Date	Lesson
		2026-09-11	

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

Key words and questions	Prepared details and student notes
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