Cornell Guided Notes

Human Anatomy & Physiology (Human Body Systems) | 2026-11-18

Name	Period	Date	Lesson
		2026-11-18	

Lesson focus

Heart model and EKG

Key words and questions	Prepared details and student notes

Essential question
What is today's target?

Students will build a heart-flow model and record an EKG and pulse to relate structure to function. Big idea: Structure and function are inseparable: the sequence of chambers and valves is directly visible in an EKG trace.

My notes, examples, and questions

Key words
What vocabulary unlocks the lesson?

- artery
- vein
- capillary
- atrium
- ventricle
- EKG
- cardiac cycle
- pulse

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 P wave represents atrial depolarization; the QRS complex represents ventricular depolarization; the T wave represents ventricular repolarization. - Blood pressure is expressed as systolic (ventricle contracting) over diastolic (ventricle relaxing) in mmHg. - Heart rate and blood pressure are vital signs that clinicians use to assess cardiovascular health. **My notes, examples, and questions**
Process notes **What happens during class?**	- 0-10: Safety and equipment orientation: EKG leads, blood-pressure cuff, pulse oximeter - 10-22: Assemble or label heart model; demonstrate one-way valve flow - 22-42: Record resting EKG trace; identify and label P, QRS, and T waves - 42-55: Measure resting pulse and blood pressure; record with units - 55-68: Connect EKG wave sequence to cardiac cycle phases in notebook diagram - 68-80: Cleanup; submit annotated EKG trace and data table **My notes, examples, and questions**

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Cornell Notes - Continued

Key words and questions	Prepared details and student notes
Steps and evidence **What do I do and turn in?**	- Assemble or label a working heart model. - Demonstrate blood flow through chambers and valves. - Record a resting EKG trace and identify the heartbeat waves. - Measure pulse and estimate blood pressure. - Connect the EKG pattern to the cardiac cycle phases. Evidence: Lab report - Annotated EKG trace with P, QRS, and T waves labeled and linked to cardiac cycle phases, plus a data table recording resting pulse and blood pressure with units. **My notes, examples, and questions**
Checks for understanding **How do I know I got it?**	- Model correctly shows one-way flow through valves. - EKG waves are linked to cardiac cycle phases. **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?

Safety:
- Do not apply EKG electrodes over broken skin, rashes, or wounds; inform the teacher if this applies to you.
- Blood-pressure cuffs should not be inflated above the recommended maximum; follow teacher instructions.
- Students with known cardiac conditions should check with the teacher before participating in EKG recording.
- All electrode pads are single-use and personal; do not share between students.
- Treat all equipment carefully; report any damage to the teacher immediately.

Supplies:
- EKG recording device or sensor (teacher-provided)
- Electrode pads (disposable, per student)
- Manual blood-pressure cuff and stethoscope, or automatic BP monitor
- Pulse oximeter
- Heart model (anatomical or 3D-printed)
- Lab notebook or printed EKG trace sheet
- Ruler for measuring EKG intervals

My notes, examples, and questions

Summary

Today's lesson focused on Heart model and EKG. The main target was: Students will build a heart-flow model and record an EKG and pulse to relate structure to function. The evidence of learning is Lab report: Annotated EKG trace with P, QRS, and T waves labeled and linked to cardiac cycle phases, plus a data table recording resting pulse and blood pressure with units.. In my own words, the most important idea from today is:

My summary

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Cornell Notes - Continued

My final question or connection