# Cornell Guided Notes

Human Anatomy & Physiology (Human Body Systems) | 2026-10-23

| Name | Period | Date | Lesson |
|---|---|---|---|
| | | 2026-10-23 | |

**Lesson focus**

Negative feedback model build

| Key words and questions | Prepared details and student notes |
|---|---|

**Essential question**
**What is today's target?**

Students will build and run a physical model of blood-glucose negative feedback involving insulin and glucagon. Big idea: Negative feedback loops are the core mechanism by which the body detects deviation from a set point and corrects it.

**My notes, examples, and questions**

**Key words**
**What vocabulary unlocks the lesson?**

- hormone
- endocrine gland
- feedback loop
- insulin
- glucagon
- homeostasis

**My notes, examples, and questions**

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## Cornell Notes - Continued

| Key words and questions | Prepared details and student notes |
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| **Must-know ideas**<br>**What should I understand by the end?** | - Insulin is released when blood glucose rises; glucagon is released when it falls.<br>- Negative feedback opposes the change that triggered the response, returning the variable toward its set point.<br>- Diabetes results from disruption of this feedback loop, linking pathophysiology to homeostasis concepts on the WebXam.<br><br>**My notes, examples, and questions** |
| **Process notes**<br>**What happens during class?** | - 0-10: Review: how does the pancreas detect blood-glucose change?<br>- 10-25: Build feedback model: assign card roles for glucose, insulin, glucagon, and pancreas sensor<br>- 25-42: Meal simulation: add glucose tokens and trace insulin response to set point<br>- 42-58: Fasting simulation: remove glucose tokens and trace glucagon response<br>- 58-70: Record loop diagram with labeled arrows showing negative feedback<br>- 70-80: Pair-share and submit loop diagram<br><br>**My notes, examples, and questions** |

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| **Steps and evidence**<br>**What do I do and turn in?** | - Review how the pancreas senses high and low blood glucose.<br>- Build a feedback loop model using cards or tokens for glucose, insulin, and glucagon.<br>- Simulate a meal by adding glucose and trace the insulin response.<br>- Simulate fasting and trace the glucagon response.<br>- Record how the model returns glucose toward the set point.<br><br>Evidence: Notebook check - Feedback loop diagram showing insulin and glucagon responses for both a meal and a fasting scenario, with labeled negative-feedback arrows.<br><br>**My notes, examples, and questions** |
| **Checks for understanding**<br>**How do I know I got it?** | - Model correctly shows insulin lowering and glucagon raising glucose.<br>- Notes describe return to set point as negative feedback.<br><br>**My notes, examples, and questions** |

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**Lab or safety notes**
**What must I handle carefully?**

Supplies:
- Blood-sugar feedback model cards or tokens
- Whiteboard or chart paper
- Colored markers for glucose, insulin, glucagon
- Endocrine gland body diagram
- Lab notebook
- Simple glucose-level tracking sheet

**My notes, examples, and questions**

## Summary

Today's lesson focused on Negative feedback model build. The main target was: Students will build and run a physical model of blood-glucose negative feedback involving insulin and glucagon. The evidence of learning is Notebook check: Feedback loop diagram showing insulin and glucagon responses for both a meal and a fasting scenario, with labeled negative-feedback arrows.. In my own words, the most important idea from today is:

**My summary**

## My final question or connection