

# Cornell Guided Notes

Human Anatomy & Physiology (Human Body Systems) | 2027-03-08

Name

Period

Date

Lesson

## Lesson focus

Brain dissection or virtual

## Key words and questions

## Prepared details and student notes

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

Examine brain regions through a sheep-brain dissection or a virtual brain. Big idea: Direct examination of brain anatomy connects textbook region names to three-dimensional structures and reveals why different injuries produce different functional deficits.

**My notes, examples, and questions**

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

- neuron
- dendrite
- axon
- synapse
- neurotransmitter
- CNS
- PNS
- cerebrum

**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?**

- Cerebrum: largest region; controls voluntary movement, sensory processing, language, memory, and higher cognition. Divided into four lobes (frontal, parietal, temporal, occipital).
- Cerebellum: located posterior to the brainstem; coordinates balance, fine motor control, and learned movement sequences.
- Brainstem (medulla oblongata, pons, midbrain): controls autonomic functions including heart rate, respiration, and blood pressure; connects brain to spinal cord.
- Gray matter contains neuron cell bodies; white matter contains myelinated axons. On a cut surface, gray is darker and peripheral, white is lighter and central (in the cerebrum).

**My notes, examples, and questions**

**Process notes**  
**What happens during class?**

- 0-10: Safety briefing and handling protocol for sheep brain or virtual login
- 10-25: External examination: identify cerebrum, cerebellum, brainstem; note one function each
- 25-45: Internal (coronal) cut: locate gray matter and white matter
- 45-60: Draw and label brain-region map: three regions with functions; gray/white matter boundary
- 60-75: Group comparison: does your map match the reference? correct discrepancies
- 75-80: Submit labeled map; clean up specimen or log off virtual

**My notes, examples, and questions**

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#### Steps and evidence What do I do and turn in?

- Review the safety and handling steps for the sheep-brain or virtual model.
- Identify the cerebrum, cerebellum, and brainstem on the specimen.
- Note one function controlled by each region you identify.
- Compare the external and a cut internal view to locate gray and white matter.
- Submit your labeled brain-region map with functions.

Evidence: Lab report - Labeled brain-region map identifying cerebrum, cerebellum, and brainstem with one function each, plus gray and white matter boundary marked on an internal view.

#### My notes, examples, and questions

#### Checks for understanding How do I know I got it?

- You can locate the cerebrum, cerebellum, and brainstem.
- You can state one function for each region.

#### My notes, examples, and questions

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

**Safety:**

- Wear gloves, goggles, and apron for the entire real dissection; do not remove PPE until specimen is returned to the tray and hands are washed.
- Use scalpel or scissors only when directed by the teacher; cut away from your body and your lab partner.
- Preserved specimens contain fixative chemicals; avoid touching your face during the lab and wash hands thoroughly with soap afterward.
- Dispose of all specimen tissue in the designated biohazard bag, not the regular trash.

**Supplies:**

- Preserved sheep brain (one per group) OR access to virtual brain dissection software
- Dissecting tray and dissecting scissors or scalpel (real dissection only)
- Dissecting probe or blunt needle
- Nitrile gloves
- Safety goggles
- Lab apron
- Brain-region reference diagram

**My notes, examples, and questions**

## Summary

Today's lesson focused on Brain dissection or virtual. The main target was: Examine brain regions through a sheep-brain dissection or a virtual brain. The evidence of learning is Lab report: Labeled brain-region map identifying cerebrum, cerebellum, and brainstem with one function each, plus gray and white matter boundary marked on an internal view.. In my own words, the most important idea from today is:

**My summary**

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**My final question or connection**