

NERVOUS SYSTEM AND SENSORY ANATOMY

NEURONS and SUPPORTIVE CELLS: Examine a prepared slide of a motor neuron. Sketch and identify the **soma, dendrites, axon, glial cells.**

SPINAL CORD ANATOMY: On the spinal cord model and slide, locate the following:

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|--|----------------------|
| white matter | ventral root |
| gray matter (dorsal and ventral horns) | dorsal root ganglion |
| dorsal root | central canal |

NEUROMUSCULAR JUNCTION:

Examine the prepared slide of the n-m junction and make a sketch of it.

BRAIN ANATOMY:

A. External structures:

Superior (Dorsal) view:

1. gyri (ridges)
2. sulci (grooves)
3. longitudinal cerebral fissure
4. cerebrum (R & L hemispheres)
5. cerebellum

Lateral view, identify the following regions:

1. frontal lobe
2. parietal lobe
3. temporal lobe
4. occipital lobe

Inferior (Ventral) view; locate the following structures on the human brain model, sheep brain:

- | | |
|---------------------------|----------------------|
| 1. olfactory bulb | 5. infundibulum |
| 2. optic chiasma | 6. pons |
| 3. optic tracts | 7. medulla oblongata |
| 4. hypophysis (pituitary) | |

B. Internal structures - Midsagittal section; identify the following on the sheep brain.

Midsagittal section, identify: **cerebral cortex, thalamus, corpus callosum.**

Cerebellum - Note the regions of gray matter and white matter. Purkinje cells can be found in the gray matter. The white matter is composed of myelinated axons.

Cerebral cortex - Note the regions of gray and white matter. Pyramidal cells can be found in the cortex.

ANATOMY OF THE EYE: models and poster

Eye Anatomy: Identify on diagram and human eye model

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|-----------|----------------------------|---------------------|
| 1. pupil | 5. optic nerve | 9. choroid |
| 2. iris | 6. blind spot (optic disc) | 10. macula lutea |
| 3. sclera | 7. lens | 11. fovea centralis |
| 4. cornea | 8. retina | |

SHEEP EYE DISSECTION, Identify:

- | | | |
|-----------|---------------------------------------|-----------------------------|
| 1. sclera | 5. pupil | 9. retina |
| 2. cornea | 6. anterior chamber /aqueous humor | 10. optic nerve |
| 3. lens | 7. posterior chamber / vitreous humor | 11. blind spot (optic disc) |
| 4. iris | 8. choroid | |

ANATOMY OF THE EAR: model, poster, ear bones: Identify

- | | |
|----------------------------|---------------------|
| 1. pinna (auricle) | 6. stapes (stirrup) |
| 2. external auditory canal | 7. oval window |

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3. tympanic membrane
4. malleus (hammer)
5. incus (anvil)
8. semicircular canals
9. cochlea
10. Eustachian (auditory) tube