

Lab 8: Nervous System

Introduction and brain	pp. 231-234, p.247 do questions 1-3.
Spinal nerves and spinal cord	pp. 235, p.247 questions 4-7
Spinal cord and Spinal Reflexes	pp.236 skip 1 do 2, then 1-3 (knee jerk reflex)
Human & sheep eye	pp. 237-240, p.247 questions 8-10
The human ear	pp. 241-242, p.247 questions 11-13
Sensory receptors	pp. 242-244

Mammalian Brain pp. 231-234

- -Use the model on display and the dissected sheep brain to identify the following portions in lateral, ventral and cross-section views: *cerebrum, frontal lobe, parietal lobe, occipital lobe, temporal lobe, cerebellum, thalamus, hypothalamus, diencephalon, midbrain, pons, medulla oblongata, ventricles.*
- -Identify the pituitary gland in the human brain and its function
- -Endocrine gland that secretes hormones which regulate many body activities
- -Known historically as *Master Gland* but is actually directed by hypothalamus

Spinal Nerves pp. 235

- -Identify *sensory neurons, interneurons, and motor neurons* and their function
- -Why is each type of neuron important?
- -View station on spinal cord (no slide for observation)

Human and Sheep Eye pp.237 - 240

- -We will break into 2 halves and go through sheep eye dissection as a demo with structure & function included
- -You will not be doing your own dissection so pay close attention during my demo
- -You will be responsible for the following: *sclera, cornea, choroid, retina, rod cells, cone cells, fovea centralis, lens, ciliary body, iris, pupil, aqueous humor, vitreous humor, and optic nerve*
- -Be sure to review the eye using the model
- -Complete blind spot of the eye experiment
- -Complete accommodation of the eye experiment
- -*Optional:* watch video on lens replacement on human eye (cataract surgery)

Human Ear pp.241 - 242

- -Use the model and your manual to identify the following parts of the ear: *pinna, auditory canal, tympanic membrane, malleus (hammer), incus (anvil), stapes (stirrups), auditory tube, semicircular canals, cochlea, vestibule, cochlear nerve, and vestibular nerve*
- -Mechanoreceptors for inner ear are hair (cilia) which help send signals to the brain for hearing and for balance
- -Complete the locating sound experiment using a tuning fork

Sensory Receptors pp.242 - 244

- -Receptors aid in sending information to the brain for processing
- -Omit human skin on p.243
- -Complete touch receptor experiment
- -Complete temperature experiment
- -Omit chemoreceptors on p.245

You should be able to answer questions 1-13 on page 230