

## Exercise 19: Gross Anatomy of the Brain and Cranial Nerves

- ◆ Identify the following brain structures on a human brain model, sheep brain and/or appropriate diagram.

### External Anatomy

#### • **Cerebrum:**

- cerebral hemispheres
- gyri
- sulci
  - central sulcus
  - lateral sulcus
- fissures
  - longitudinal fissure
  - transverse fissure
- frontal lobe
- parietal lobe
- occipital lobe
- temporal lobe

#### • **Diencephalon**

- olfactory bulbs and tracts
- optic nerves
- optic chiasma
- mammillary body
- pituitary gland
- infundibulum

#### • **Brain Stem**

- midbrain
  - cerebral peduncle
  - corpora quadrigemina
  - superior and inferior colliculi
- pons
- medulla oblongata

#### • **Cerebellum**

- vermis

### Internal Anatomy

#### • **Cerebral hemispheres**

- corpus callosum
- fornix
- septum pellucidum

**Do Activity:** #1 & 2

#### • **Diencephalon**

- hypothalamus
- thalamus
- intermediate mass of thalamus
- pineal body

#### • **Brain Stem**

- midbrain
  - cerebral aqueduct

#### • **Cerebellum**

- outer region (cortex) – gray matter
- inner region- white matter
- arbor vitae

#### • **Choroid plexuses**

(ID on diagram; see fig. 19.8)

- lateral ventricle
- third ventricle
- fourth ventricle
- cerebral aqueduct
- central canal
- inferior and anterior horns
- interventricular foramen
- cerebrospinal fluid
- choroid plexus

- ◆ Be able to define the following:

- gyri
- fissures
- sulci

- ◆ Be able to identify the three meningeal layers and state their function.

- pia mater
- arachnoid mater
- dura mater