

HW1

Part 1: Identifying Brain Features

Name: _____

Date: _____

The first part of this homework assignment is designed to teach the anatomical features of the brain. You will be identifying key landmarks of the brain in various slices. Please use colored pencils/pens to label the landmarks associated with each image and then scan it and turn it in digitally as a pdf or word doc. If you have a way to digitally label this document with colors that is also fine. You are encouraged to use the following resources to help you complete your assignment, all of which are available (via link or download) on canvas:

- Nieuwenhuys 2008 text
 - Digital textbook. Helpful anatomical reference.
- Digital Anatomist
 - Website that labels various anatomical structures in MRI slices. From Washington.edu.
- Brain Tutor
 - Program that allows you to scroll through an MRI and view the cortex in 3D. Most helpful for identifying cortical features (e.g. lobes, gyri, sulci).
- HeadNeckBrainSpine
 - Interactive website that allows you to scroll through an MRI and labels regions as you hover your mouse over them.

For each brain image, label the corresponding features listed next to it.

- Not all features will necessarily be visible in the slice, it is your job to recognize this and **not label** these features.
- You may use the feature's number to label.
- If a feature can be seen in each hemisphere, you only need to label it in one hemisphere.
- Please use a red/colored pen.

1a. Mid-Sagittal



1. Brainstem
2. White Matter
3. Grey Matter
4. Temporal Lobe
5. Corpus Callosum

1b. 10mm Lateral Sagittal



1. Internal Capsule
2. Septum Pellucidum
3. Brainstem
4. Thalamus
5. Cerebellum
6. Corpus Callosum

For each brain image, label the corresponding features listed next to it.

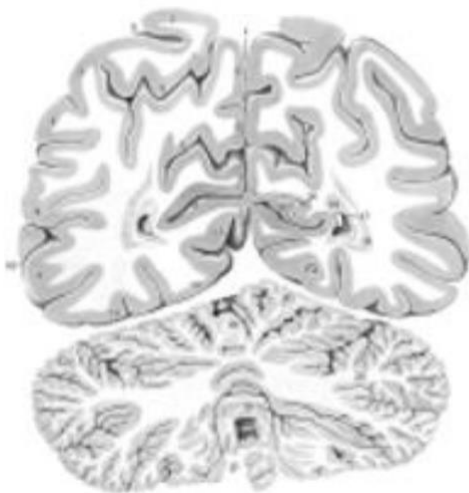
- Not all features will necessarily be visible in the slice, it is your job to recognize this and **not label** these features.
- You may use the feature's number to label.
- If a feature can be seen in each hemisphere, you only need to label it in one hemisphere.
- Please use a red/colored pen.

1c. 50mm Lateral Sagittal



1. Frontal Lobe
2. Parietal Lobe
3. Occipital Lobe
4. Temporal Lobe
5. Cingulate Cortex
6. Corpus Callosum

1d. Posterior Coronal



1. Fornix
2. Lateral Ventricles
3. Cerebellum
4. Cerebrum
5. Occipital Lobe
6. Brainstem

For each brain image, label the corresponding features listed next to it.

- Not all features will necessarily be visible in the slice, it is your job to recognize this and **not label** these features.
- You may use the feature's number to label.
- If a feature can be seen in each hemisphere, you only need to label it in one hemisphere.
- Please use a red/colored pen.

1e. Middle Coronal



1. Internal Capsule
2. Corpus Callosum
3. Lateral Ventricles
4. Septum Pellucidum
5. Temporal Lobe
6. Cerebellum

1f. Anterior Coronal



1. Cortex
2. Grey Matter
3. White Matter
4. Corpus Callosum
5. Middle Frontal Gyrus

For each brain image, label the corresponding features listed next to it.

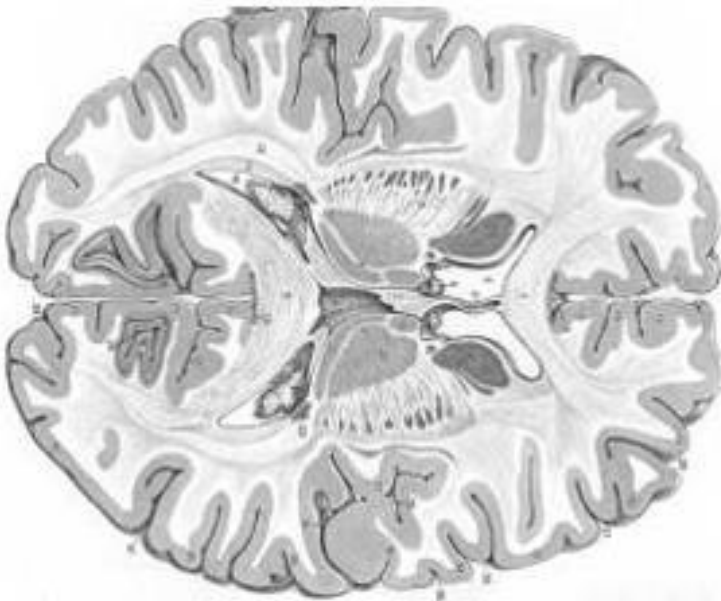
- Not all features will necessarily be visible in the slice, it is your job to recognize this and **not label** these features.
- You may use the feature's number to label.
- If a feature can be seen in each hemisphere, you only need to label it in one hemisphere.
- Please use a red/colored pen.

1g. Superior/Dorsal Axial



1. Brainstem
2. Corona Radiata
3. Central Sulcus
4. Superior Frontal Gyrus
5. Middle Frontal Gyrus

1h. Middle Axial

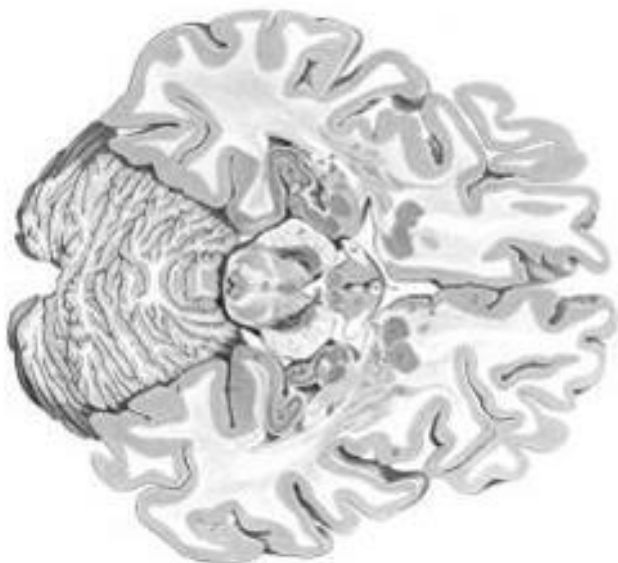


1. Lateral Ventricles
2. Corpus Callosum
3. Fornix
4. Internal Capsule
5. Optic Radiations
6. Eyes

For each brain image, label the corresponding features listed next to it.

- Not all features will necessarily be visible in the slice, it is your job to recognize this and **not label** these features.
- You may use the feature's number to label.
- If a feature can be seen in each hemisphere, you only need to label it in one hemisphere.
- Please use a red/colored pen.

1i. Inferior/Ventral Axial



1. Cerebellum
2. Putamen
3. Hypothalamus
4. Occipital Lobe
5. Parahippocampal Gyrus

For each brain image, label the corresponding features listed next to it.

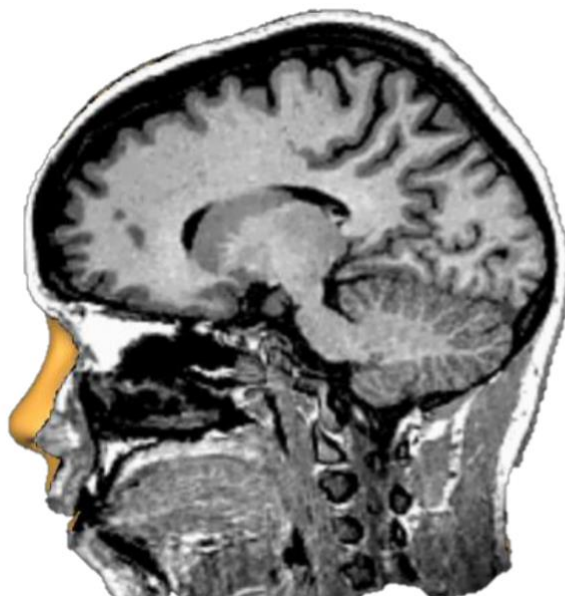
- Not all features will necessarily be visible in the slice, it is your job to recognize this and **not label** these features.
- You may use the feature's number to label.
- If a feature can be seen in each hemisphere, you only need to label it in one hemisphere.
- Please use a red/colored pen.

2a. Mid-Sagittal



1. Cerebellum
2. Brainstem
3. Corpus Callosum
4. Fornix
5. Internal Capsule
6. Cingulate Cortex

2b. 10mm Lateral Sagittal

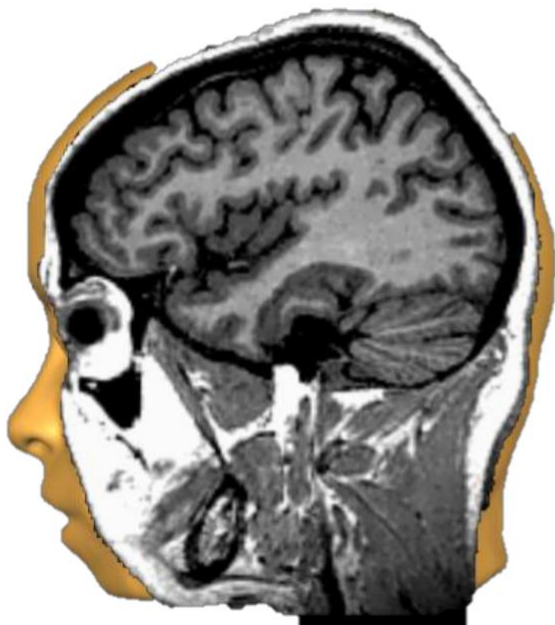


1. Thalamus
2. Corpus Callosum
3. Brainstem
4. Septum Pellucidum
5. Cerebrum
6. Cerebellum

For each brain image, label the corresponding features listed next to it.

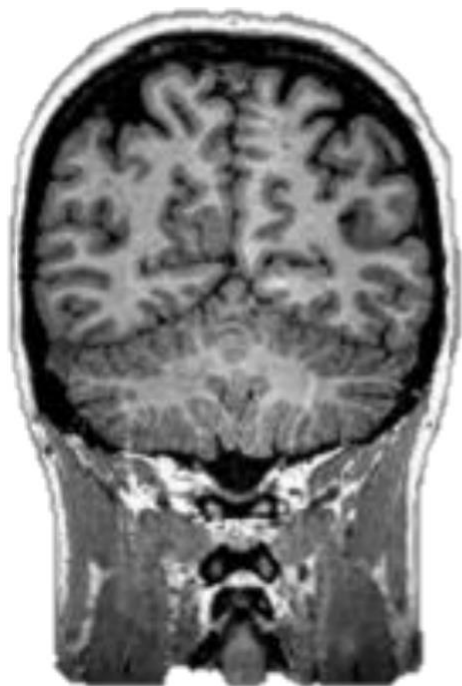
- Not all features will necessarily be visible in the slice, it is your job to recognize this and **not label** these features.
- You may use the feature's number to label.
- If a feature can be seen in each hemisphere, you only need to label it in one hemisphere.
- Please use a red/colored pen.

2c. 40mm Lateral Sagittal



1. Cerebellum
2. Temporal Lobe
3. Occipital Lobe
4. Thalamus
5. Lateral Ventricles
6. Sylvian fissure
7. Nostril

2d. Posterior Coronal

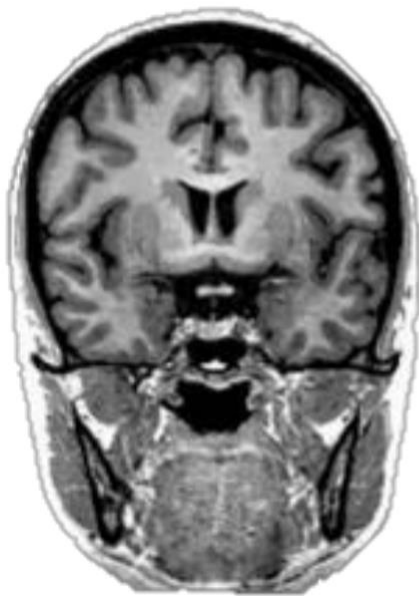


1. Grey Matter
2. White Matter
3. Brainstem
4. Spinal Cord
5. Cerebellum

For each brain image, label the corresponding features listed next to it.

- Not all features will necessarily be visible in the slice, it is your job to recognize this and **not label** these features.
- You may use the feature's number to label.
- If a feature can be seen in each hemisphere, you only need to label it in one hemisphere.
- Please use a red/colored pen.

2e. Middle Coronal



1. Temporal Lobe
2. Prefrontal Cortex
3. Corpus Callosum
4. Lateral Ventricles
5. Internal Capsule

2f. Anterior Coronal



1. Eyes
2. White Matter
3. Grey Matter
4. Frontal Lobe
5. Thalamus

For each brain image, label the corresponding features listed next to it.

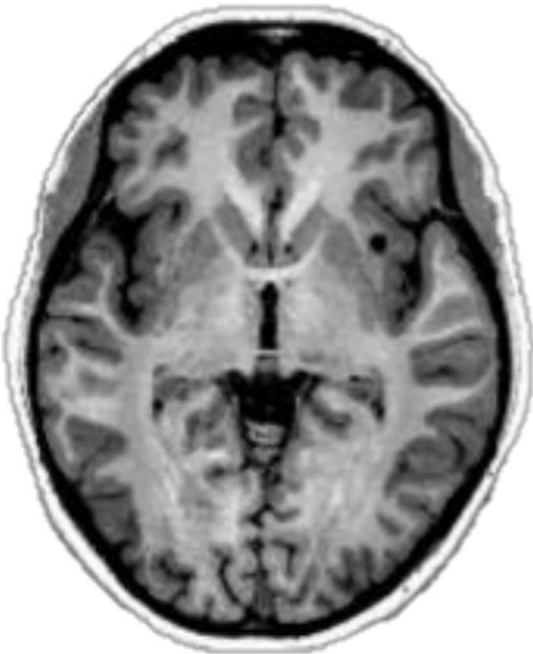
- Not all features will necessarily be visible in the slice, it is your job to recognize this and **not label** these features.
- You may use the feature's number to label.
- If a feature can be seen in each hemisphere, you only need to label it in one hemisphere.
- Please use a red/colored pen.

2g. Superior/Dorsal Axial



1. Longitudinal Cerebral Fissure
2. Parietal Lobe
3. Frontal Lobe
4. Occipital Lobe
5. Insula

2h. Middle Axial

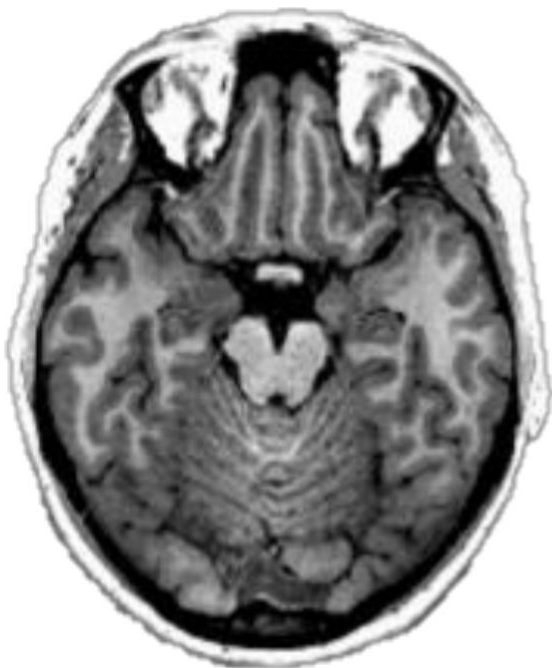


1. Central Sulcus
2. Anterior Commissure
3. Posterior Commissure
4. Insula
5. Temporal Lobe

For each brain image, label the corresponding features listed next to it.

- Not all features will necessarily be visible in the slice, it is your job to recognize this and **not label** these features.
- You may use the feature's number to label.
- If a feature can be seen in each hemisphere, you only need to label it in one hemisphere.
- Please use a red/colored pen.

2i. Inferior/Ventral Axial



1. Cerebellum
2. Brainstem
3. Eyes
4. Corpus Callosum
5. Frontal Lobe