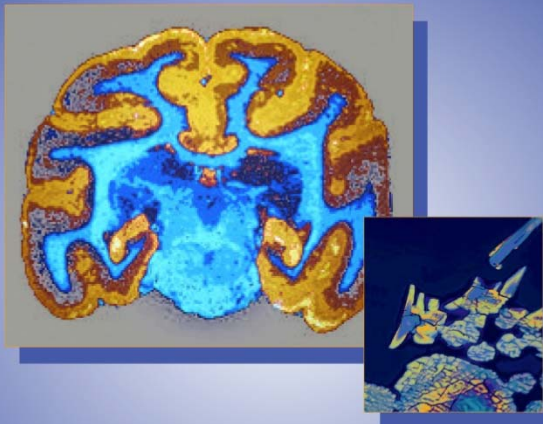


A Piece of Your Mind: Brain Anatomy

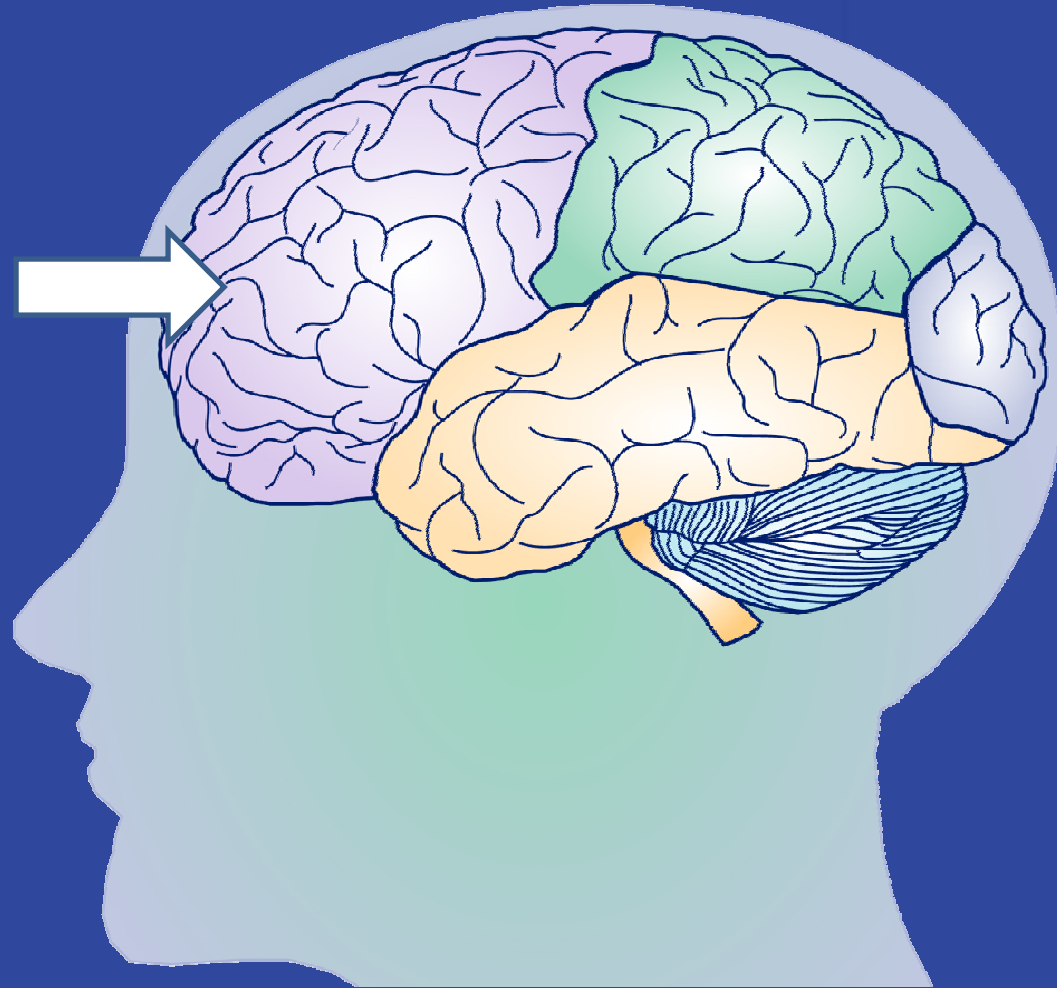


Neuron Credit FCTI



TEACHER ENRICHMENT INITIATIVES
THE UNIVERSITY OF TEXAS
HEALTH SCIENCE CENTER AT SAN ANTONIO

CEREBRUM: Frontal Lobe



Frontal Lobe:

- Responsible for thinking and creativity
- The motor area is located within the frontal lobe
- Color the Frontal Lobe Purple

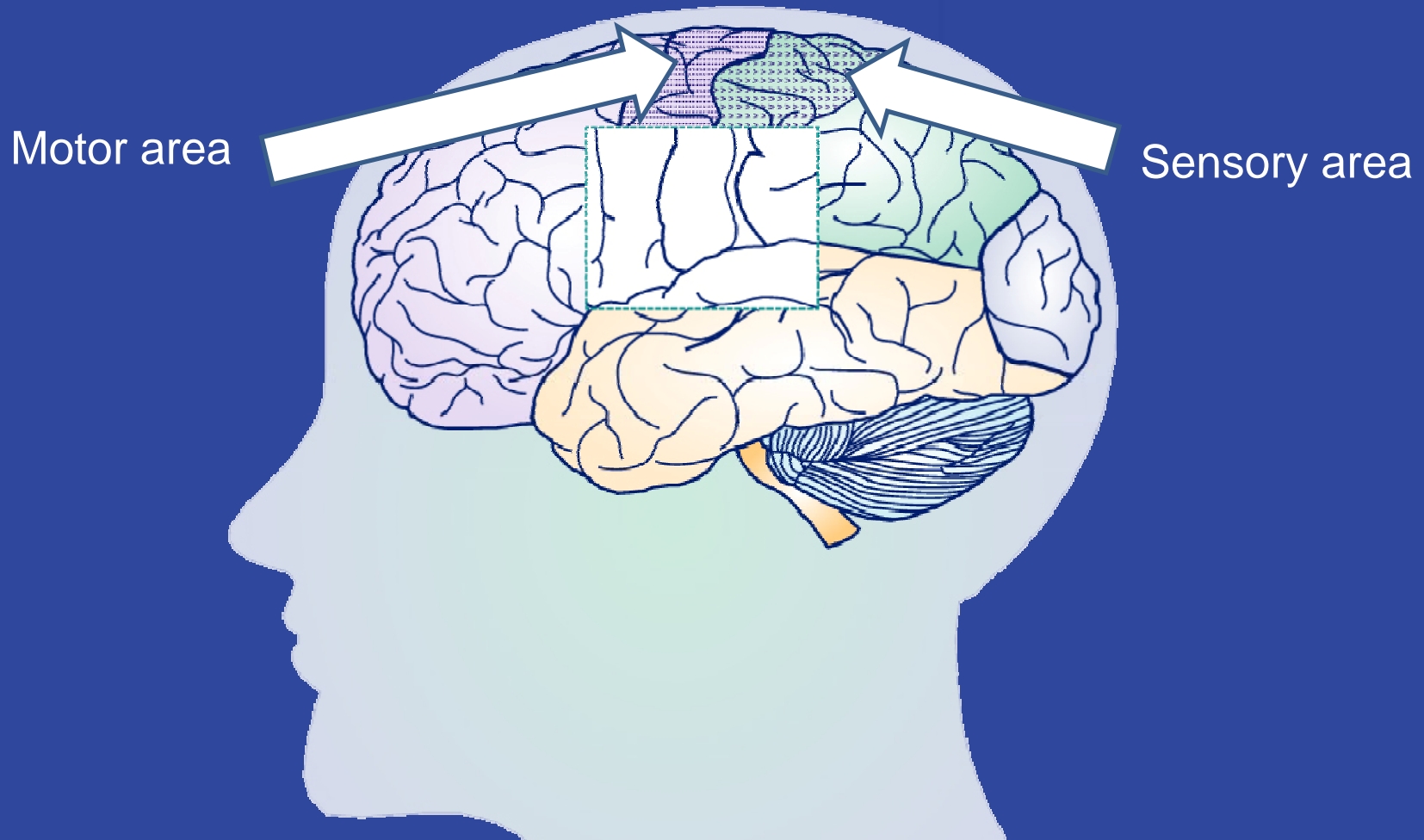
CEREBRUM: Parietal Lobe



Parietal Lobe:

- Controls memory of objects and their uses, and directions
- Contains the Sensory Area, which receives sensory messages such as touch, pain and temperature from the rest of the body
- Color the **Parietal Lobe Green**

CEREBRUM: Motor & Sensory Areas



Motor Area: Located at the back of the Frontal Lobe

Sensory Area: Located at the front of the Parietal Lobe

CEREBRUM: Temporal Lobes



Temporal Lobes (one on each side of brain):

- Control hearing, speech, and memory
- Color the **Temporal Lobe Orange** (the other temporal lobe is on the other side and is not shown)

CEREBRUM: Occipital Lobes



Occipital lobes:

- Nerve impulses from eyes are received and turned into images
- Color the **Occipital Lobes Blue** (There are two occipital lobes, one on each side - only 1 is shown in this diagram)

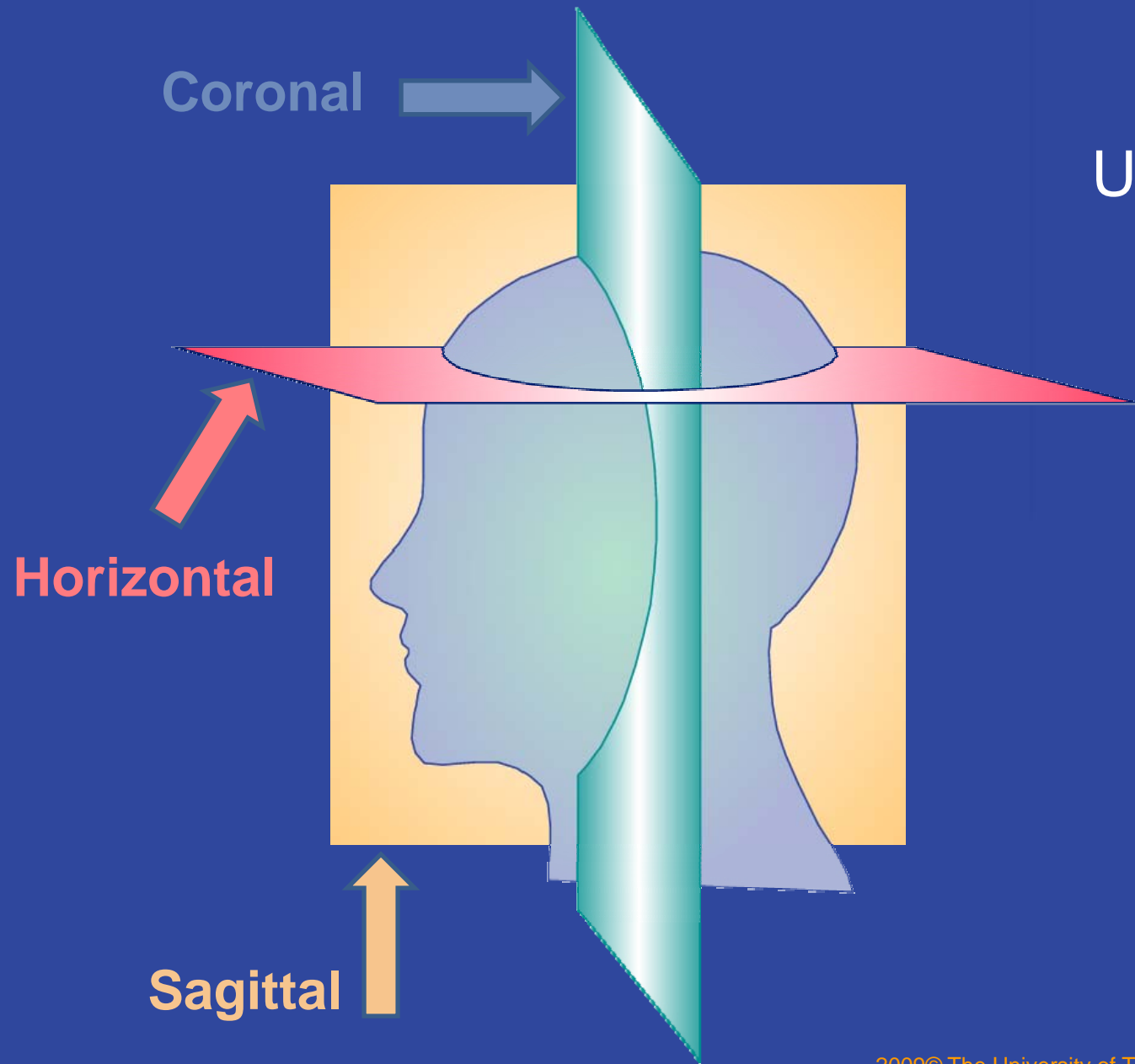
CEREBRUM: Insular Lobe



Insular Lobe:

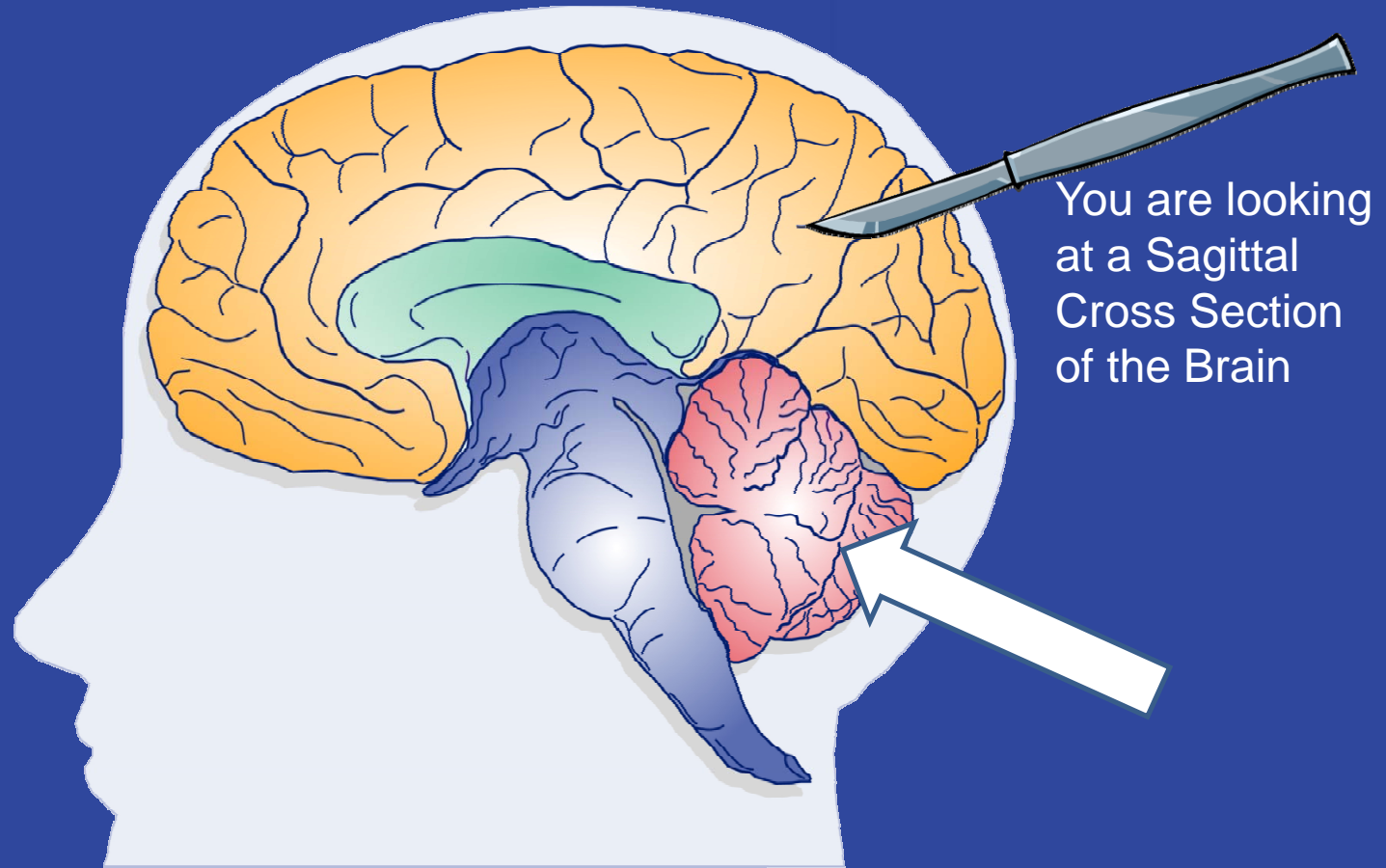
- Located under other four lobes - it cannot be seen without pushing aside the frontal and temporal lobes (Beneath Flap in your diagram)
- It *may* control behavior related to feelings
- Color the **Insular Lobe White**

Planes of the Body



Understanding the planes of the body will help as you study the structure and function of the brain (and other parts of the body, too)

Cerebellum (Cross Section of Brain)

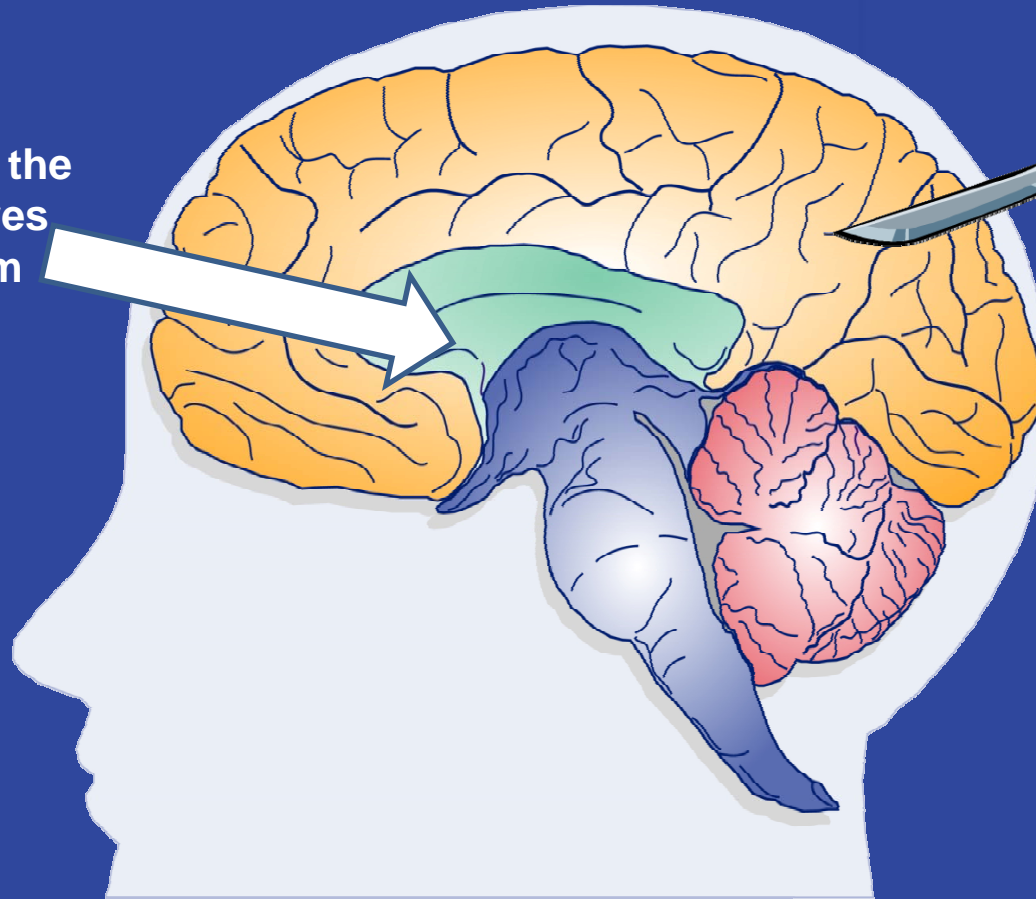


Cerebellum or "Little Brain"

- This structure controls movement, posture, and balance
- It may also play a role in learning (cognitive development)
- Color the **Cerebellum Red**

Diencephalon (Cross Section of Brain)

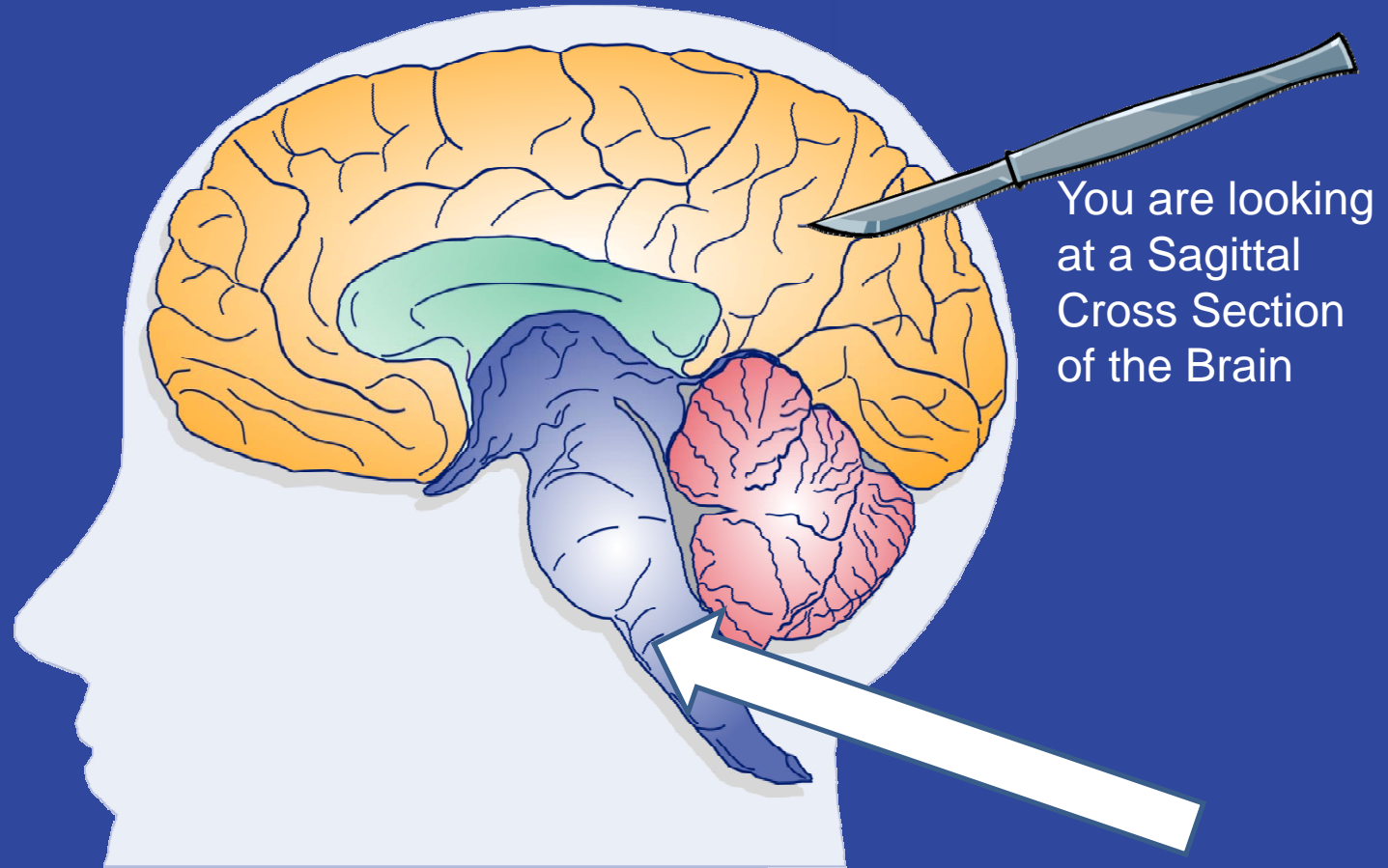
Located below the two hemispheres of the cerebrum and above the brain stem



You are looking at a Sagittal Cross Section of the Brain

- Contains thalamus, hypothalamus, optic tracts, part of the pituitary gland, and the pineal gland
- Color the **Diencephalon Green**

Brain Stem (Cross Section of Brain)

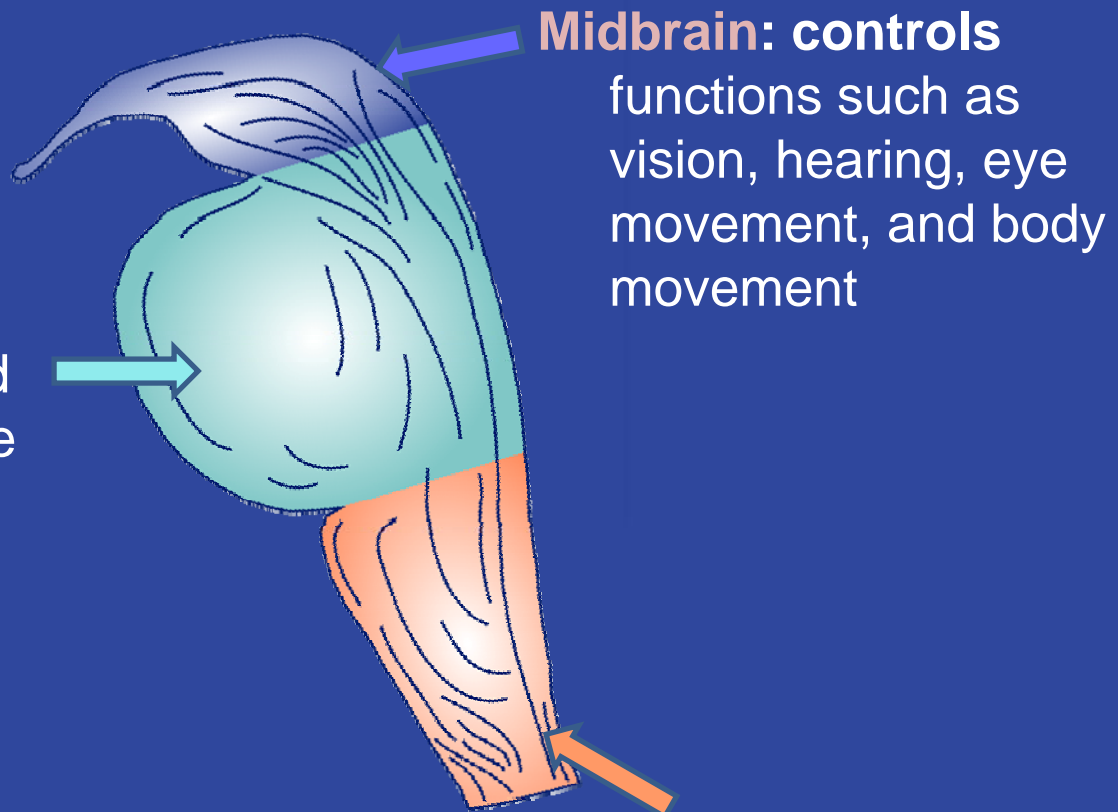


Brain Stem:

- Connects to the spinal cord
- Divided into three parts (see next slide)
- Color the **Brainstem Blue**

Brain Stem (Enlarged from previous slide)

Pons: motor control and sensory analysis some structures within the **Pons** are linked to the cerebellum, thus are involved in movement and posture



Midbrain: controls functions such as vision, hearing, eye movement, and body movement

Medulla Oblongata: Located between the Pons and the Spinal cord – controls vital body functions, such as breathing and heart rate

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- NIH is part of the U.S. Department of Health and Human Services, the primary Federal agency for conducting and supporting medical research