

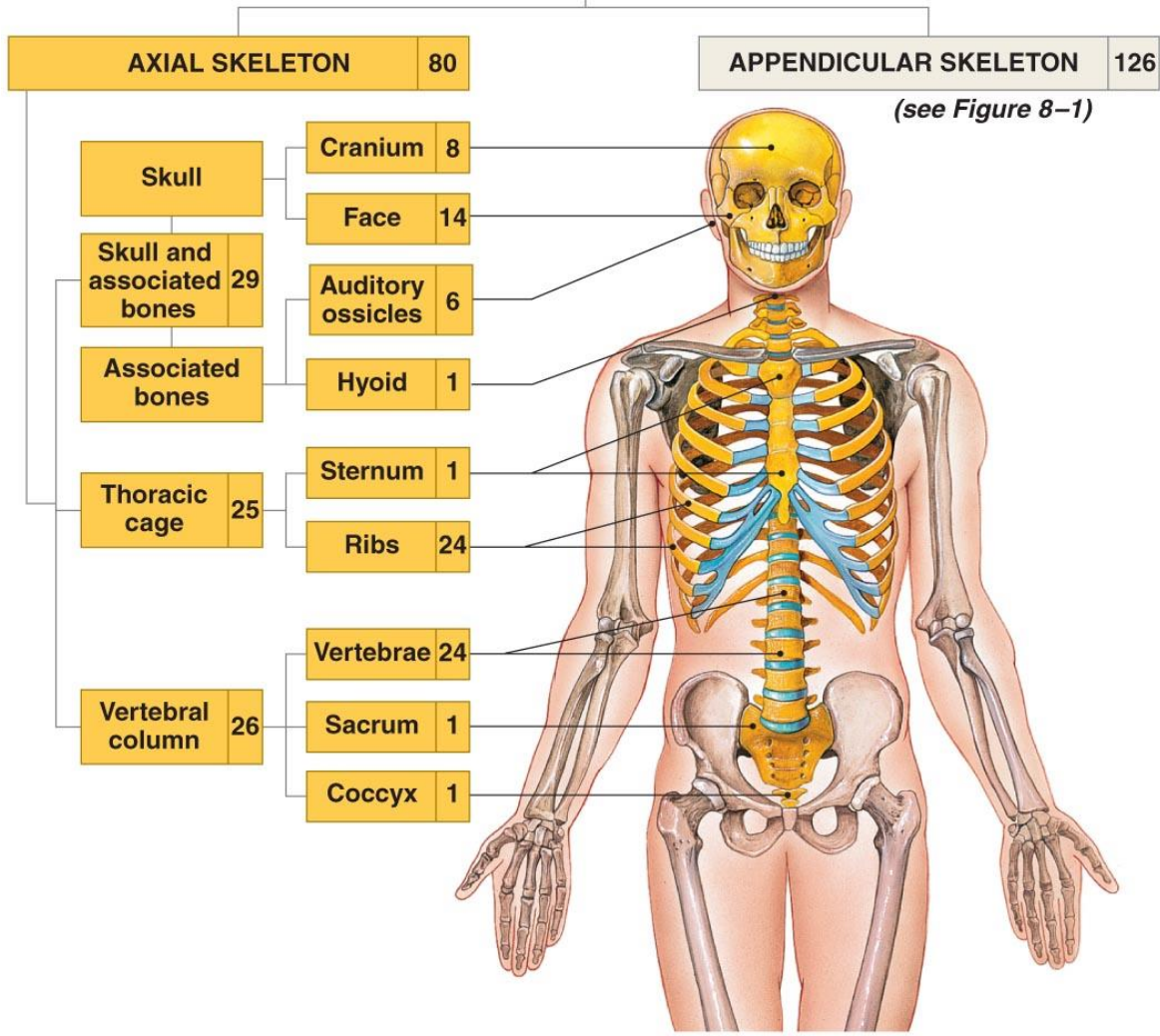
ANATOMY

THE SKULL

د. نوار غسان



SKELETAL SYSTEM 206



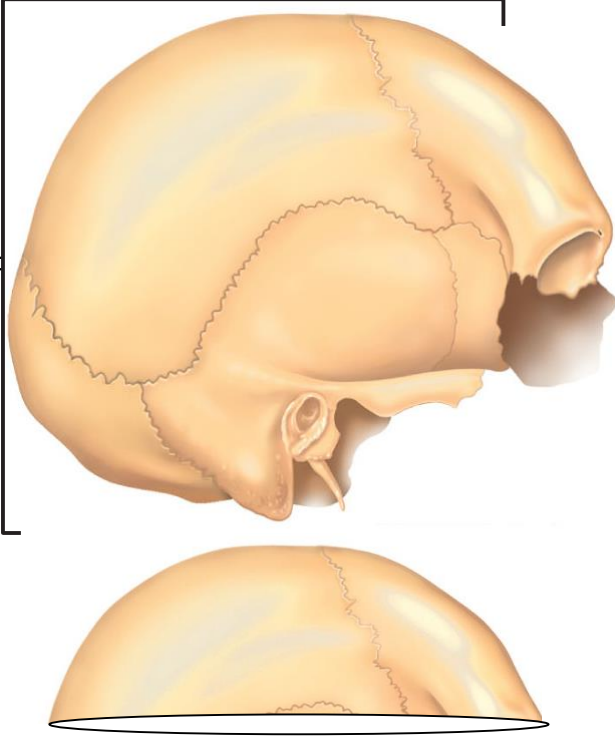
(b)

The Skull

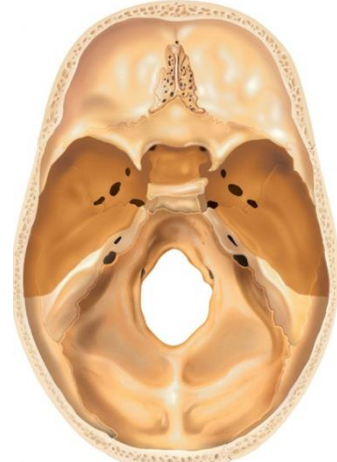
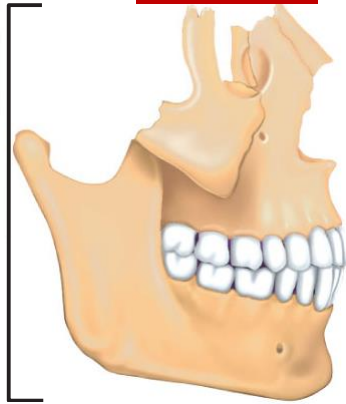
- **The skull** is the Skelton of the head its structures :
- **22 bones** forming the skull, One movable bone which articulate by synovial joint and 21 immovable bone articulated together by fibrous joint
- **21 immovable divided to :**
- **8 paired bone (right and left)**

- Parietal
- Temporal
- Zygomatic
- Lacrimal
- Maxillary
- Nasal
- Palatine
- Inferior concha
- **5 unpaired**
- Frontal
- Ethmoidal
- Sphenoid
- Occipital
- Vomer

Bones of cranium



Facial bones



Interior Surface of posterior of skull

Cranial Base

- The skull protects:
The brain
Entrances to respiratory system
Entrance to digestive system

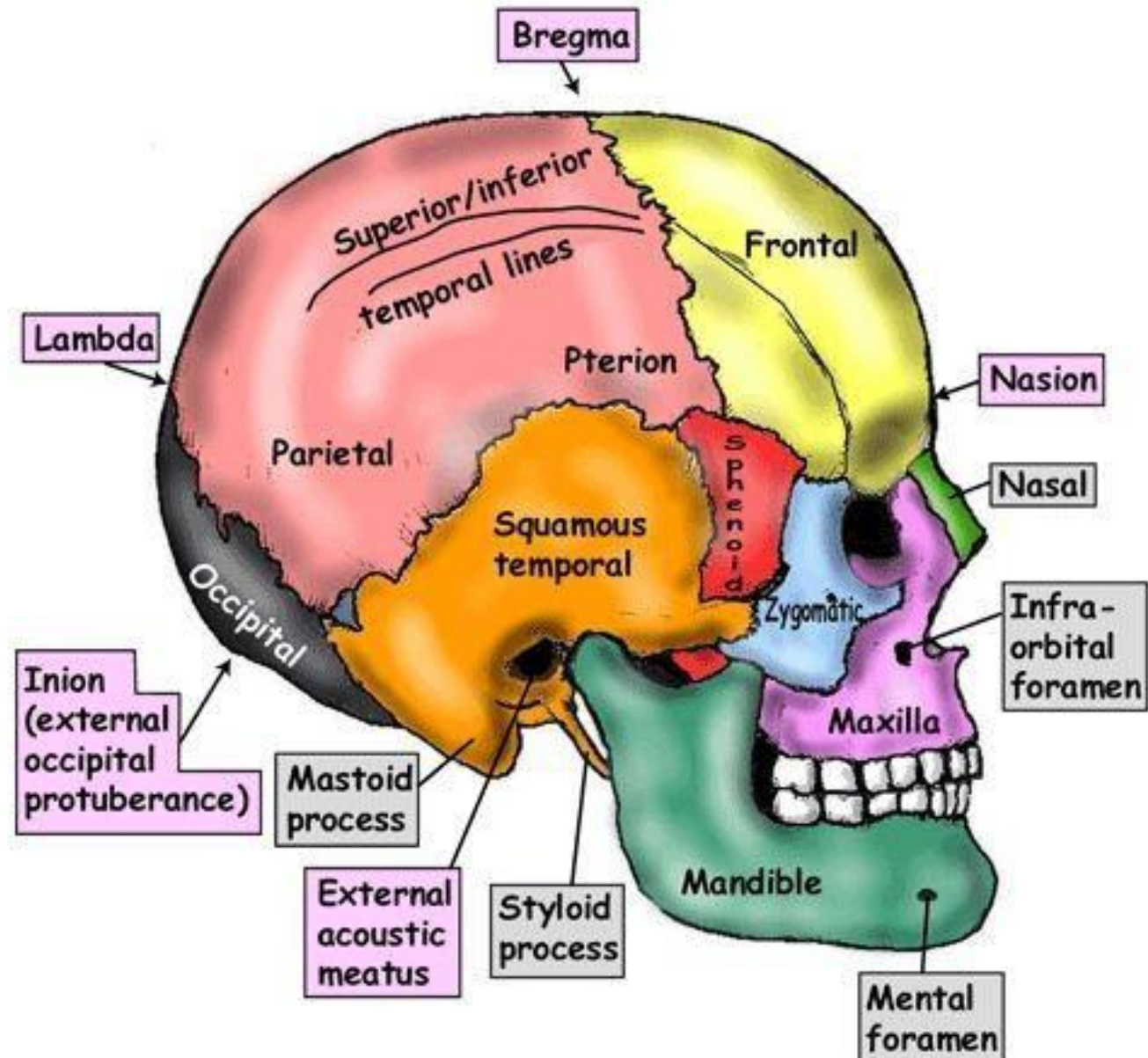
- **Cranial Bones**

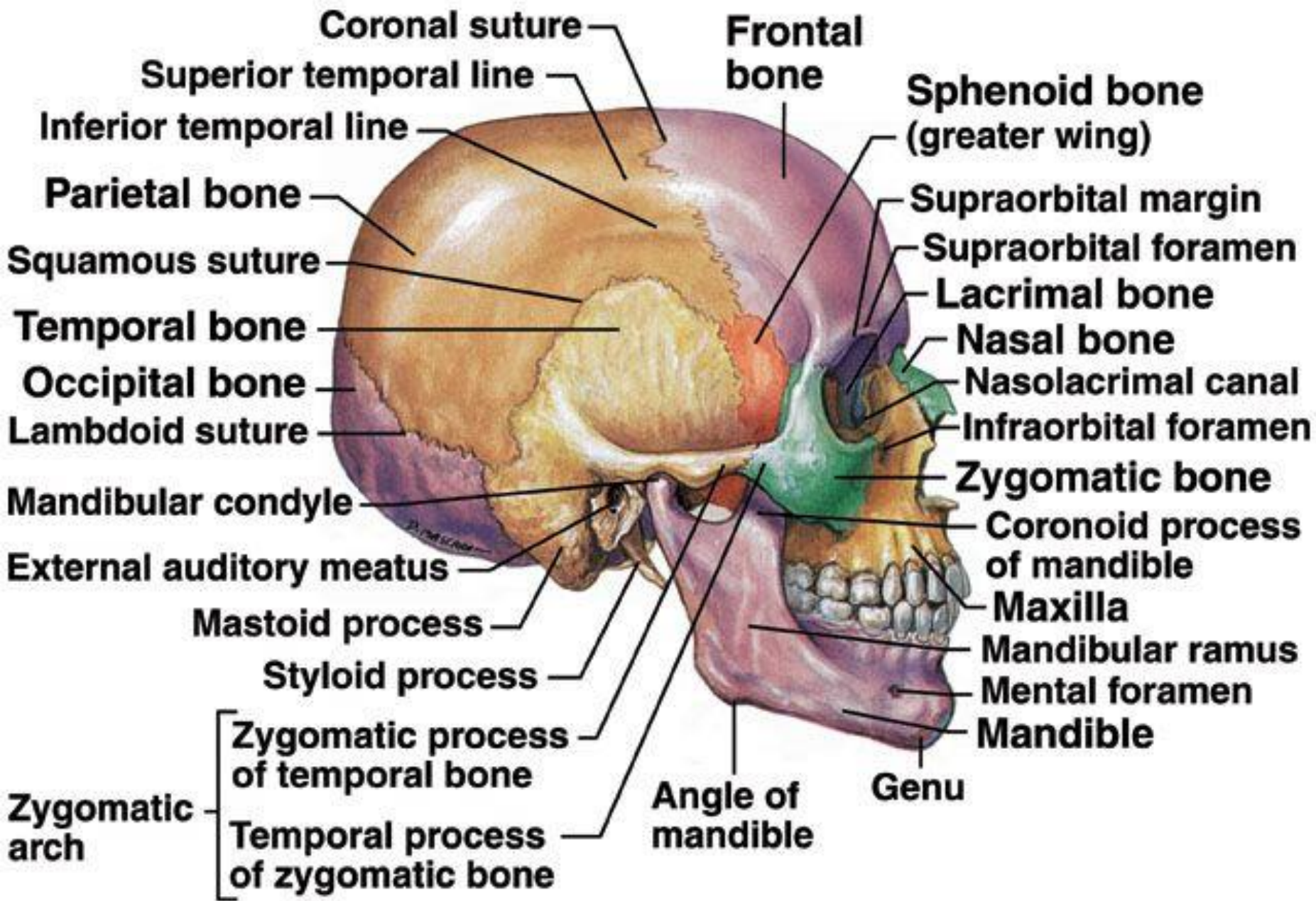
- Enclose the **cranial cavity**
- Which contains the brain
 - And its fluids, blood vessels, nerves, and membranes

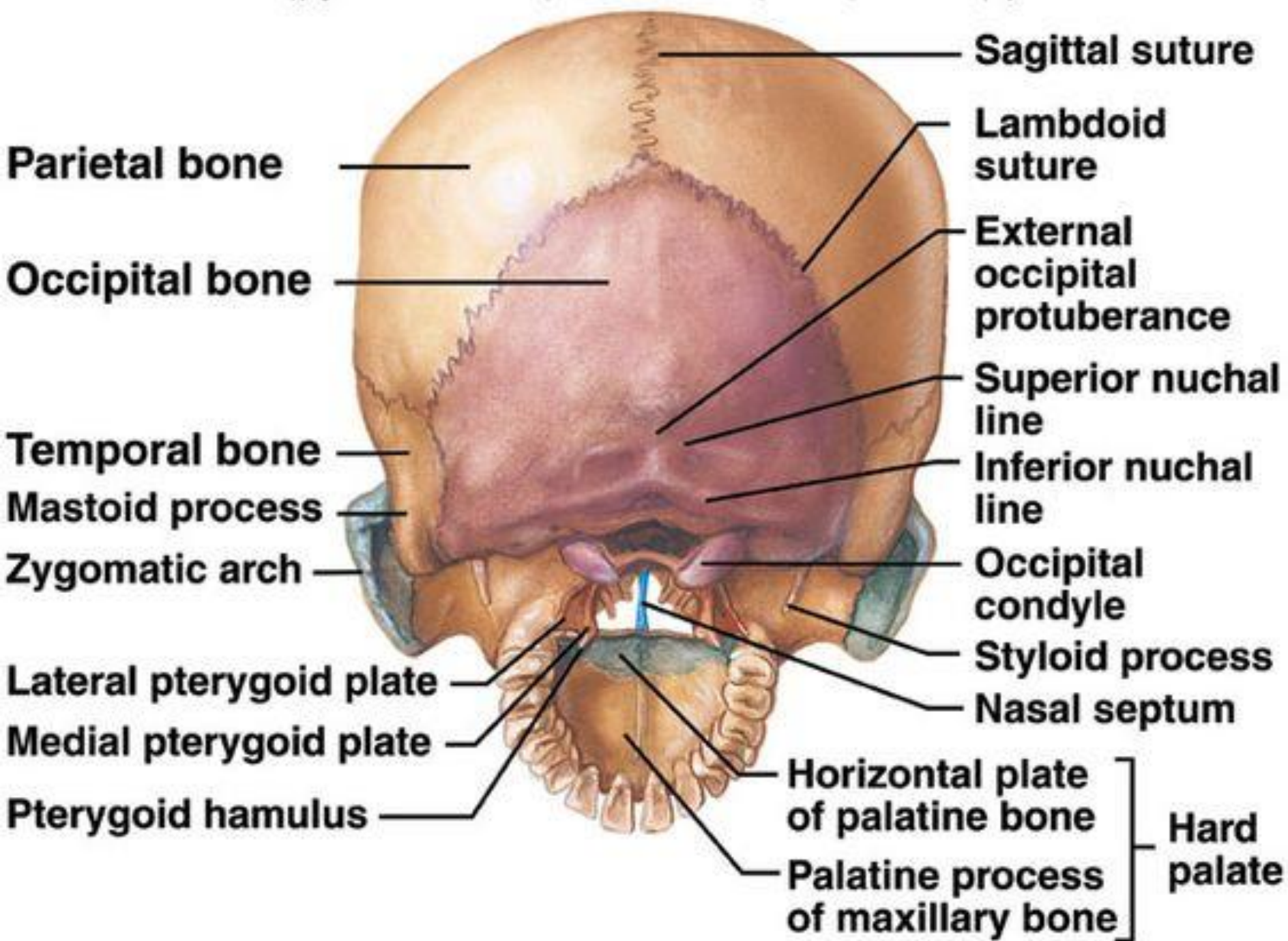
- **Facial Bones**

- *Superficial facial bones*
 - For muscle attachment
- *Deep facial bones*
 - Separate the oral and nasal cavities
 - Form the nasal septum

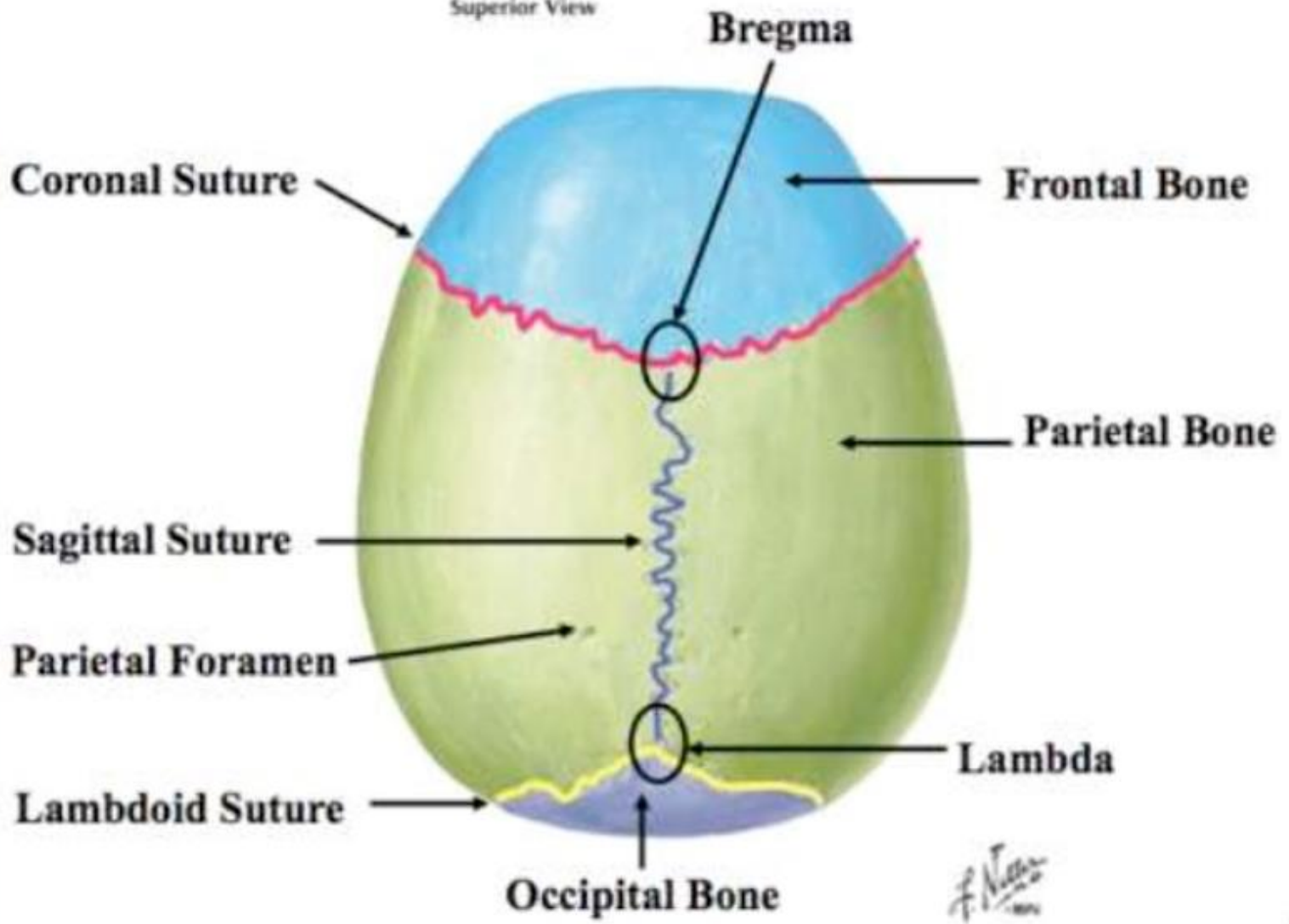
LATERAL VIEW OF SKULL TO SHOW BONES & OTHER FEATURES



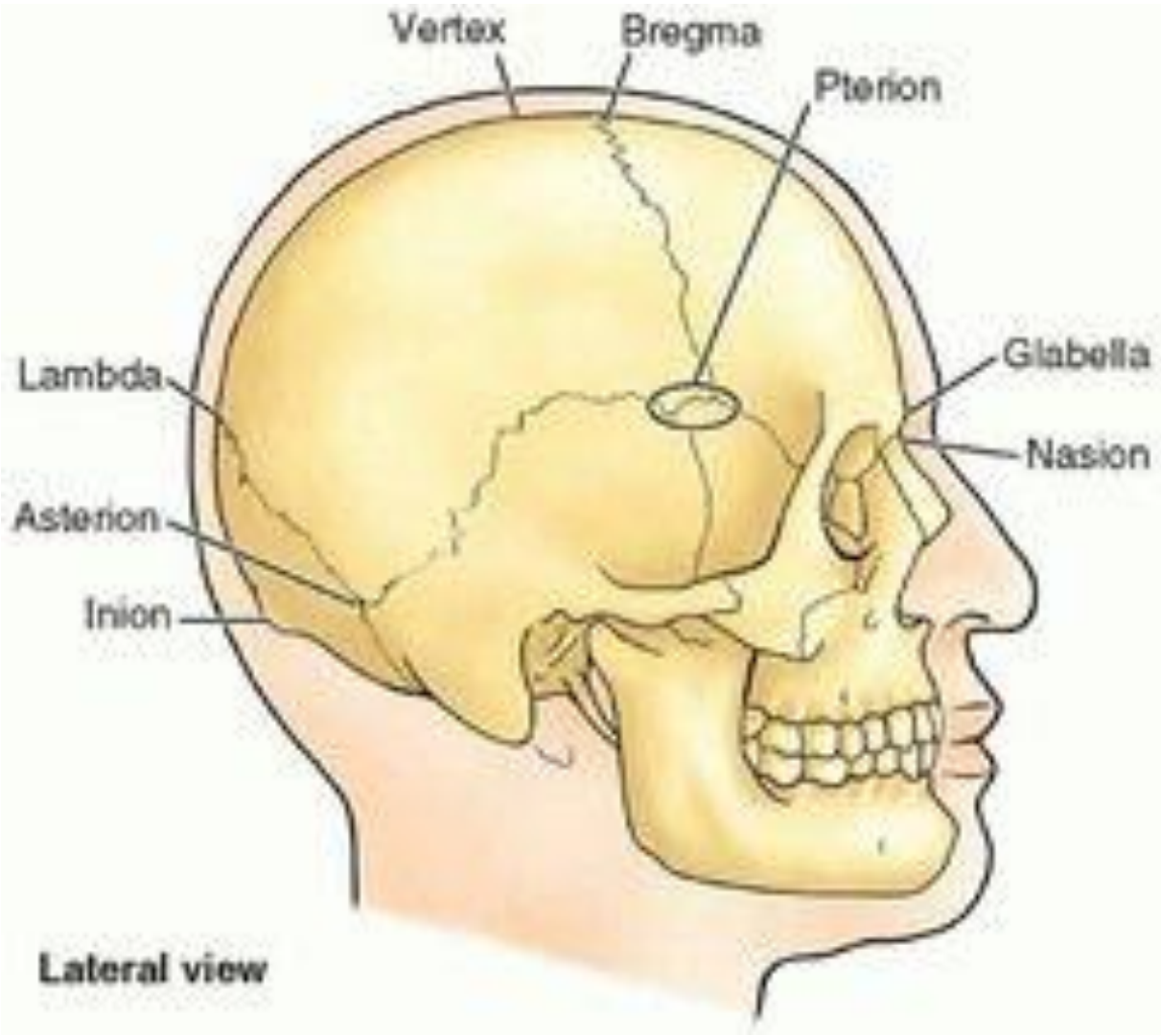




Calvaria
Superior View



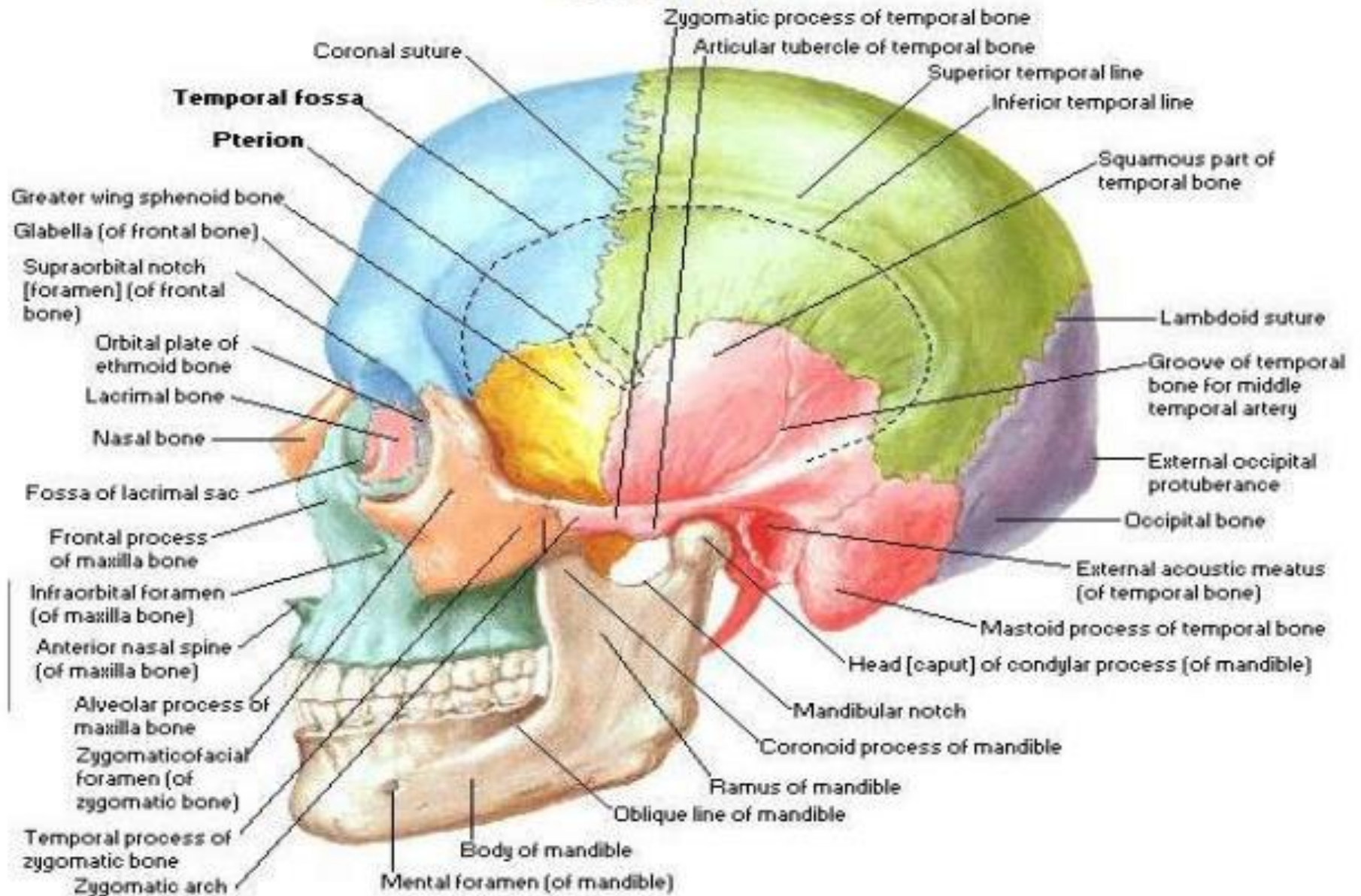
F. N. ...

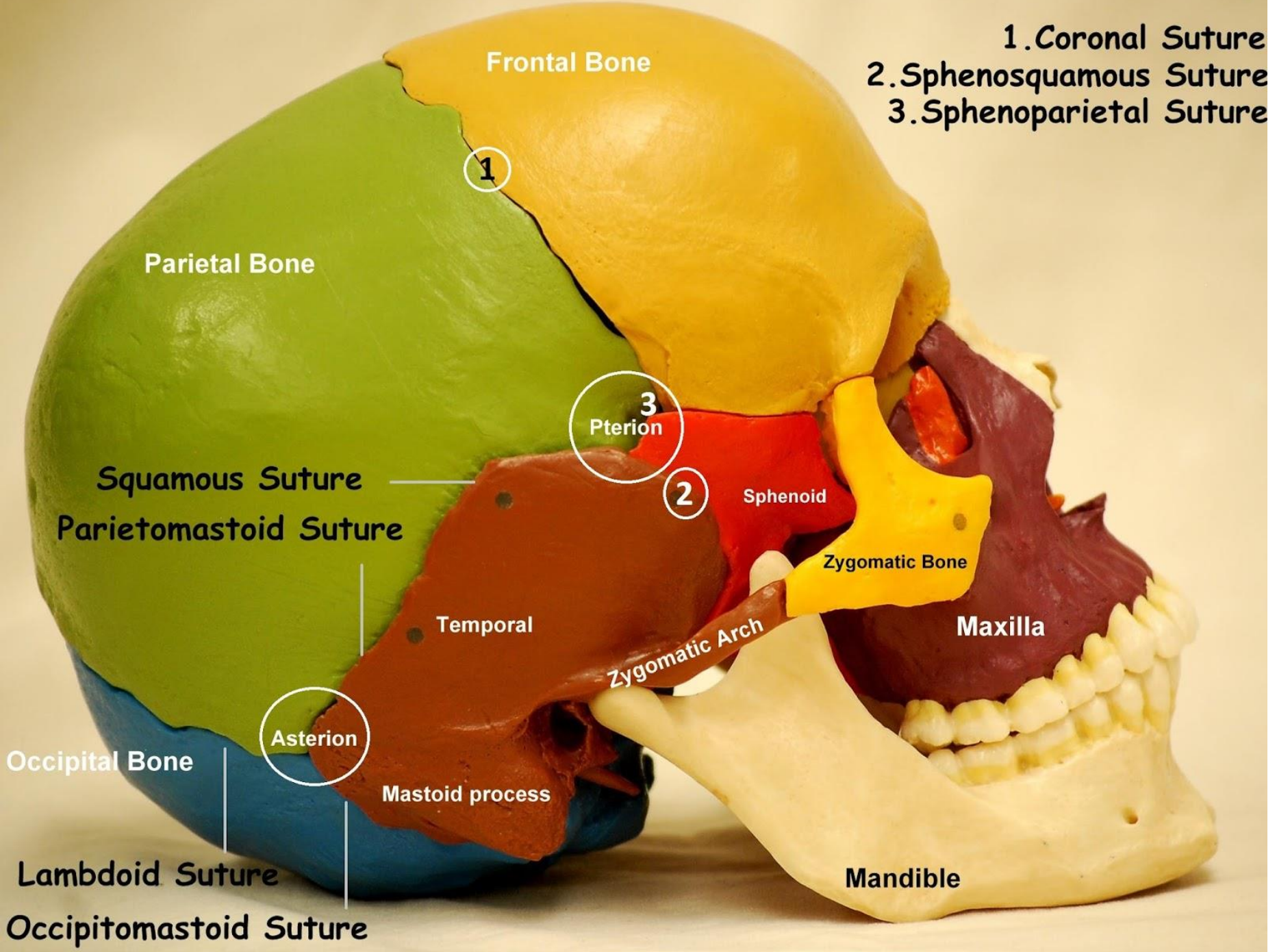


Lateral view

Skull

Lateral View





- 1. Coronal Suture
- 2. Sphenosquamous Suture
- 3. Sphenoparietal Suture

Frontal Bone

Parietal Bone

Squamous Suture
Parietomastoid Suture

Occipital Bone

Lambdoid Suture
Occipitomastoid Suture

3
Pterion

2

Sphenoid

Zygomatic Bone

Temporal

Zygomatic Arch

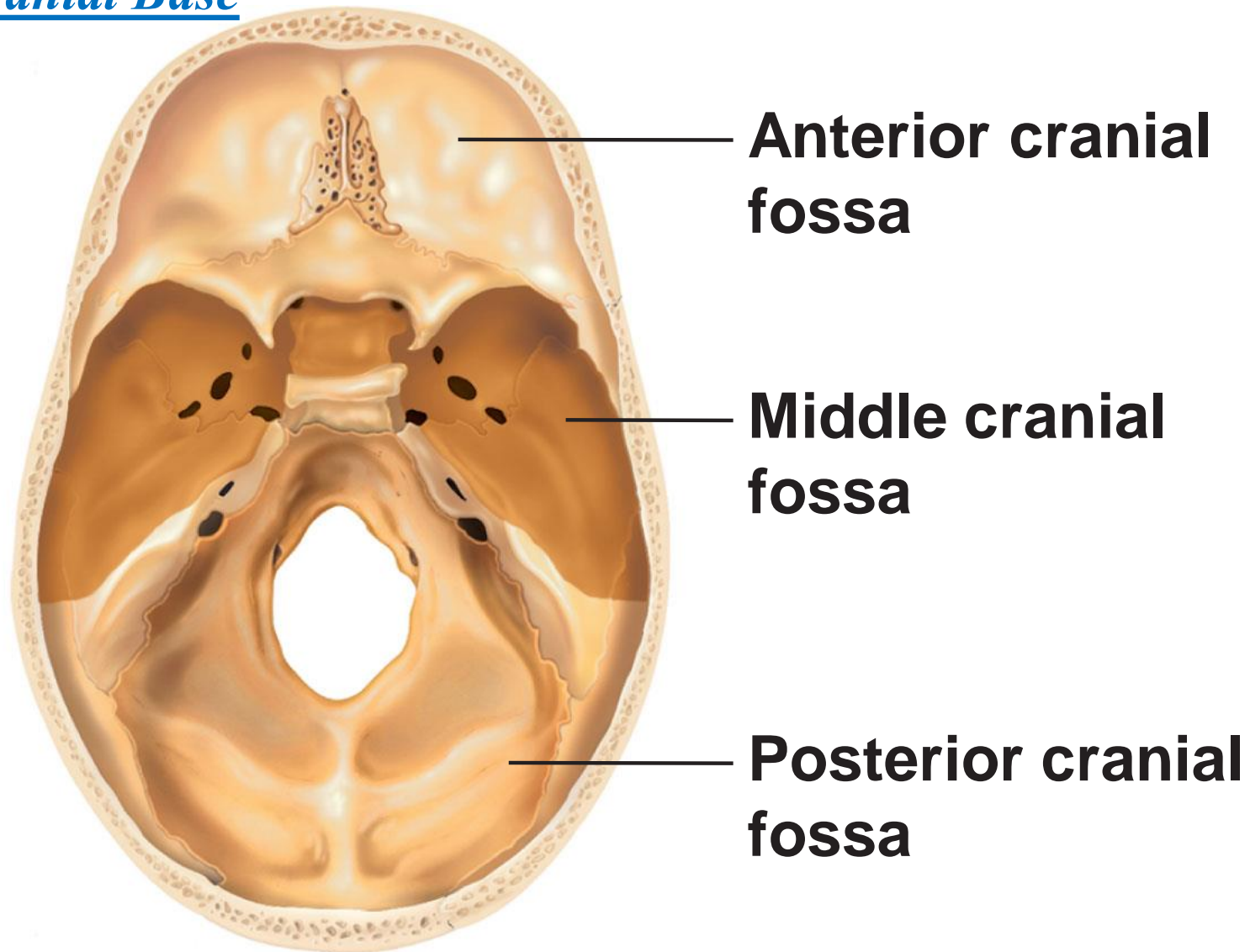
Maxilla

Asterion

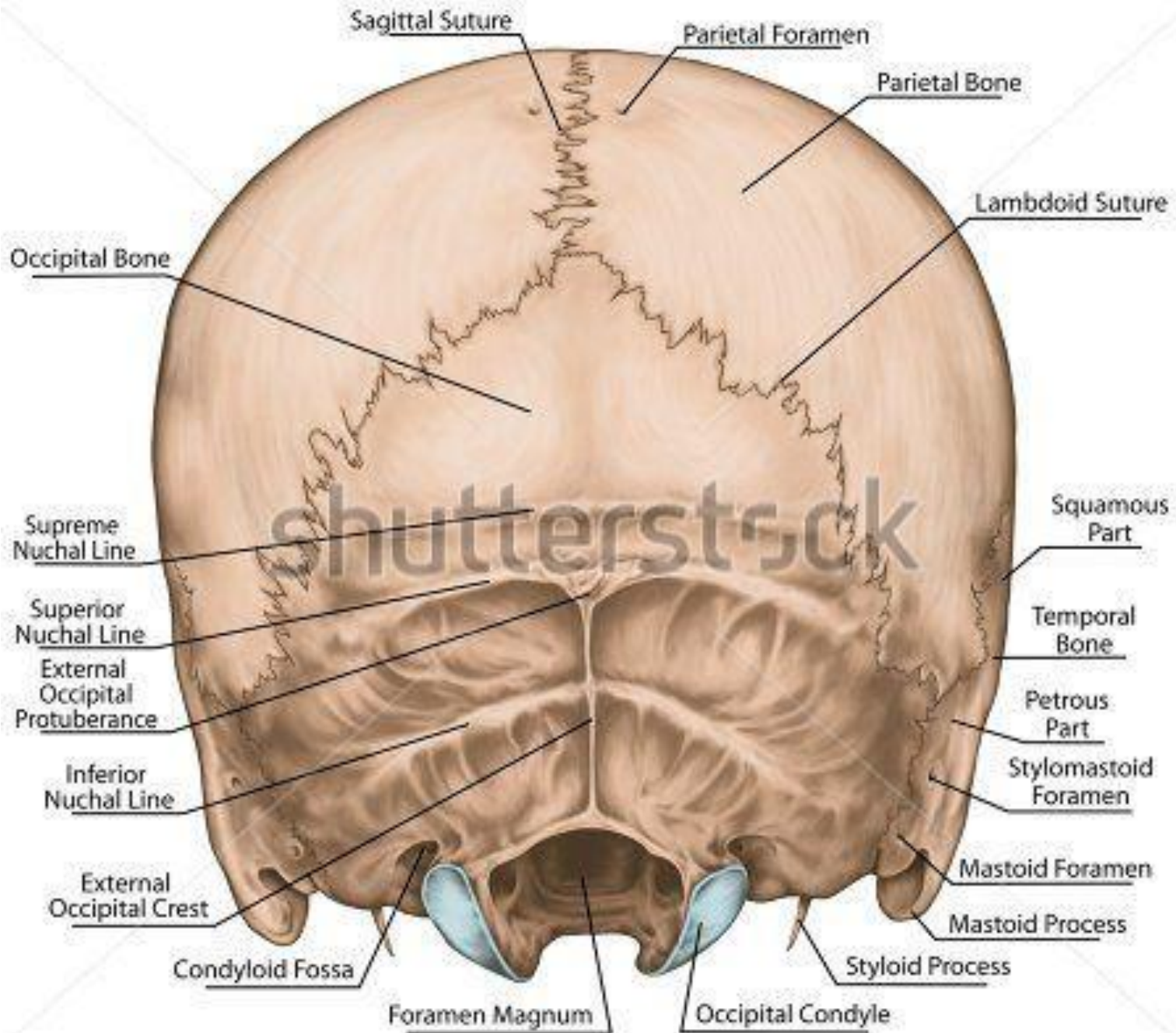
Mastoid process

Mandible

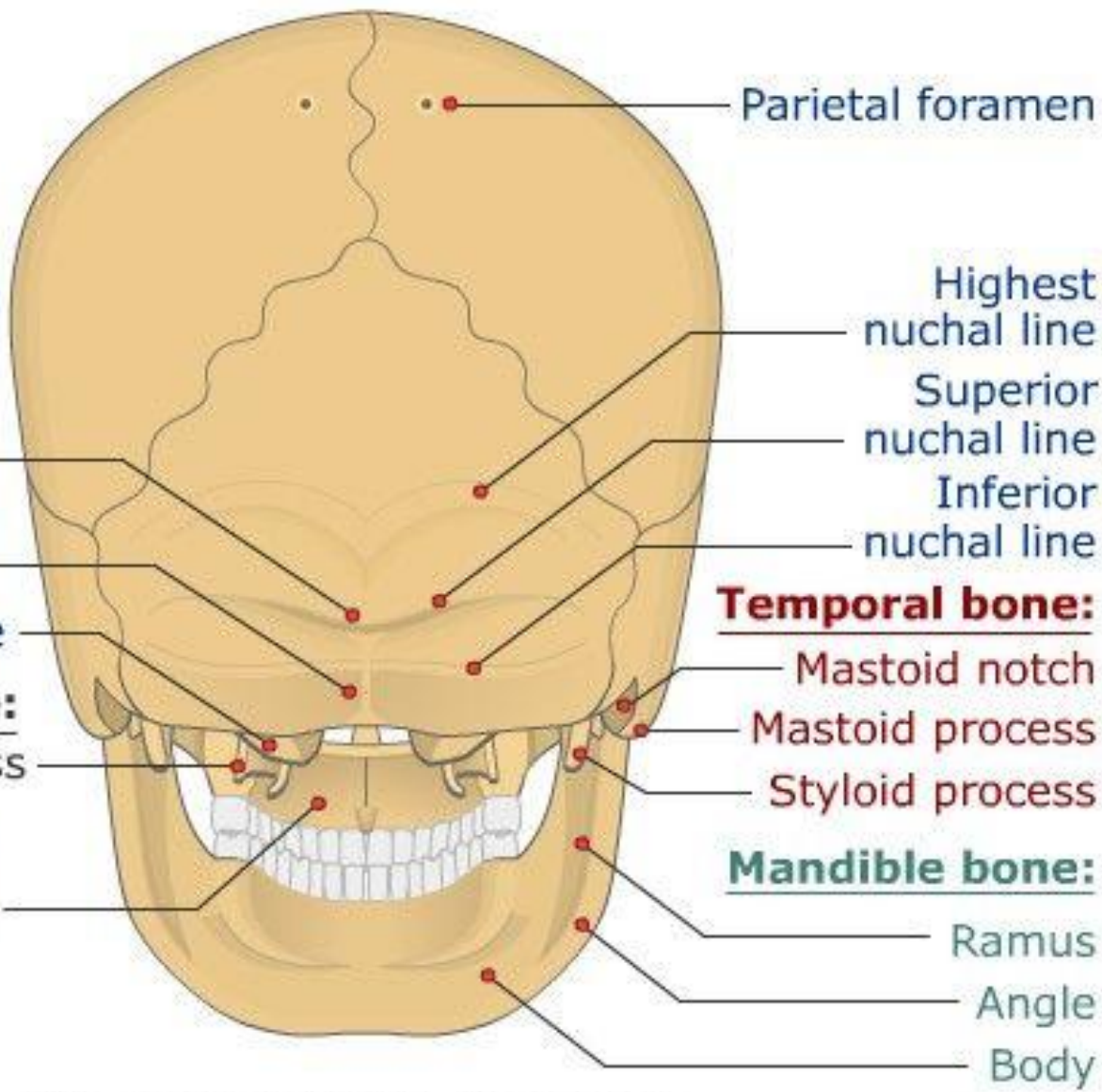
Cranial Base



(b) Superior view of the cranial fossae



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Occipital bone:

- External occipital protuberance
- External occipital crest
- Occipital condyle

Sphenoid bone:

- Pterygoid process

Maxilla bone:

- Palatine process

Parietal foramen

Highest nuchal line

Superior nuchal line

Inferior nuchal line

Temporal bone:

Mastoid notch

Mastoid process

Styloid process

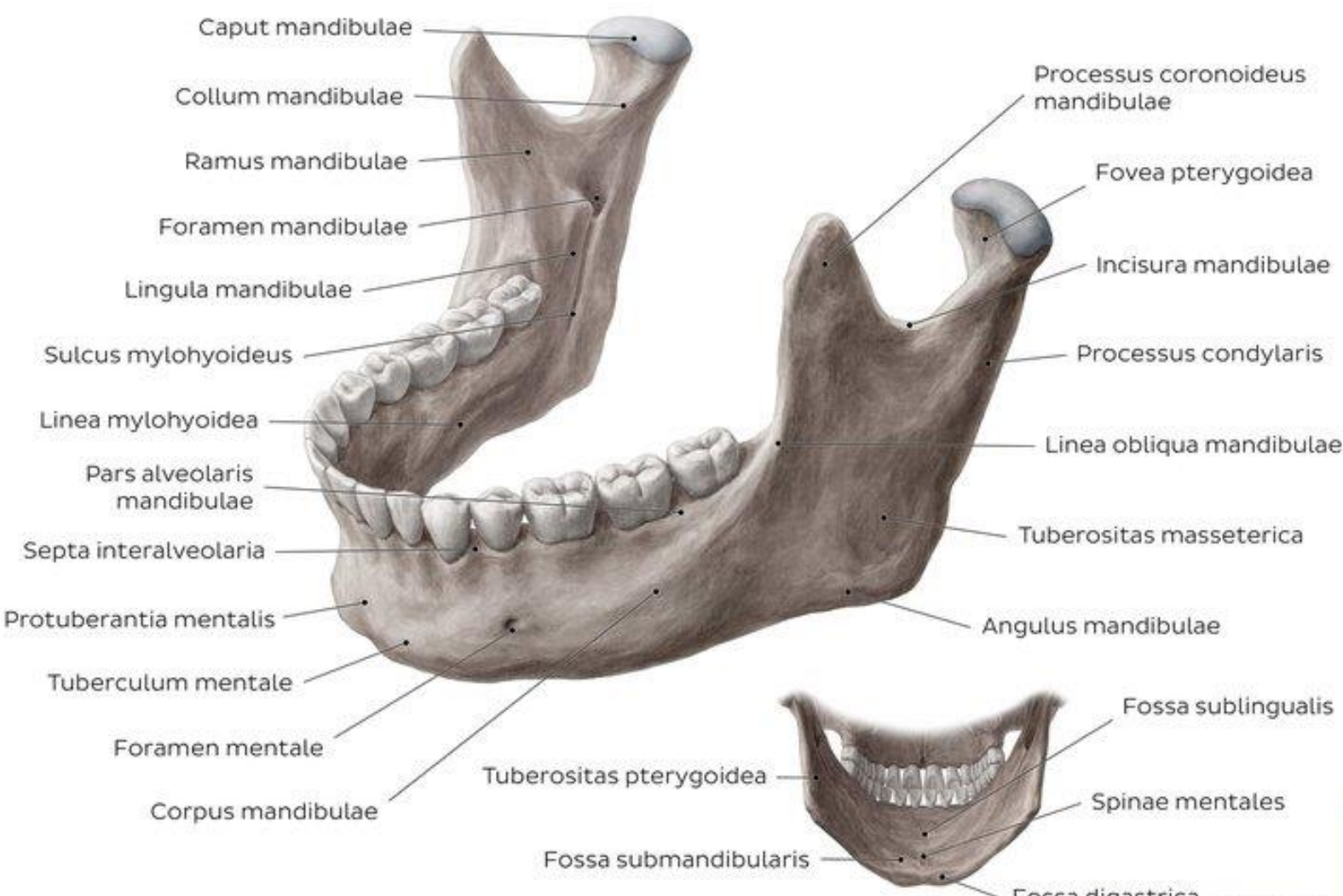
Mandible bone:

Ramus

Angle

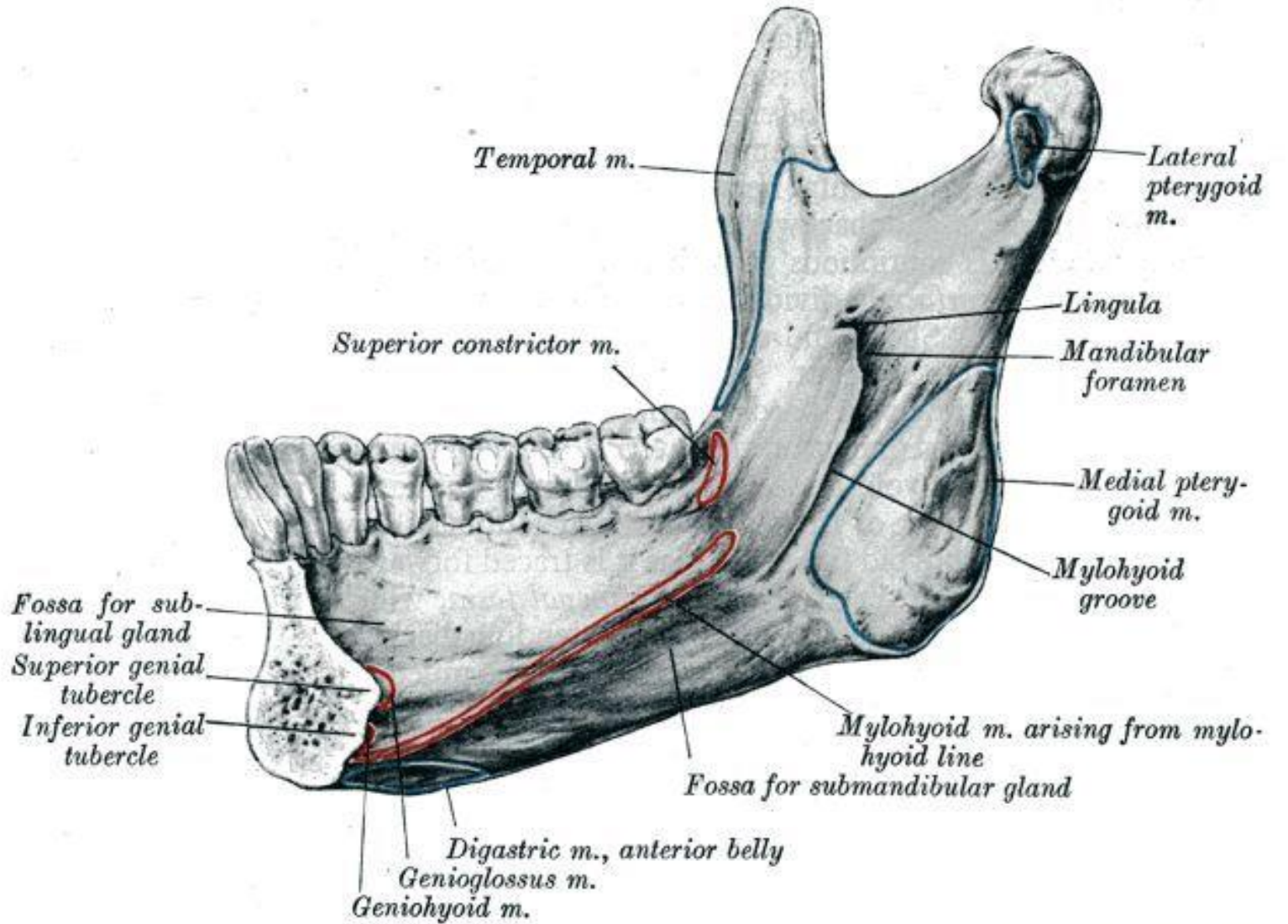
Body

Posterior Skull Markings



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FIG. 336.—The right half of the mandible. Medial aspect.



- **The Cranial Bones**

- Occipital bone
- Parietal bones
- Frontal bone
- Temporal bones
- Sphenoid
- Ethmoid

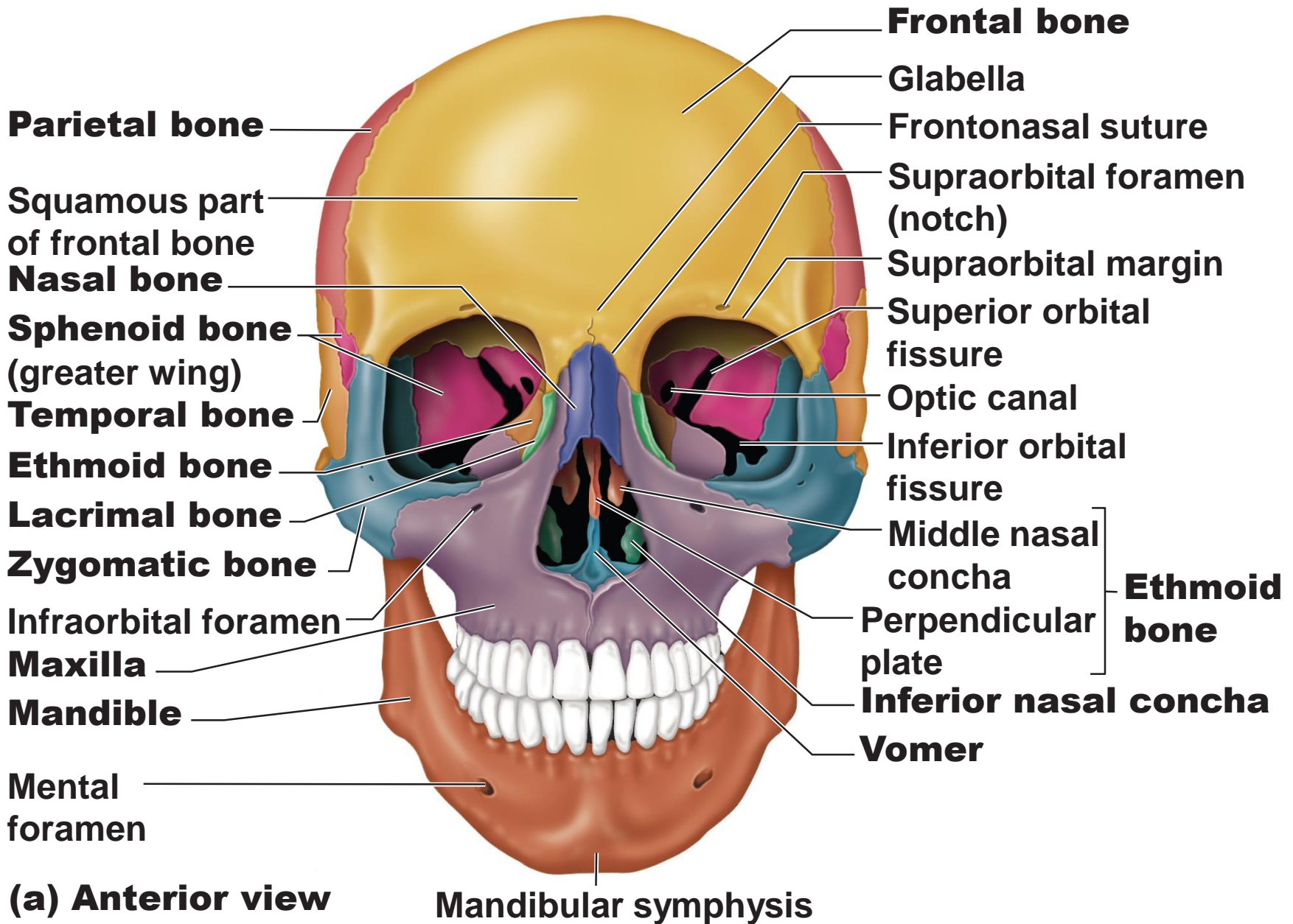
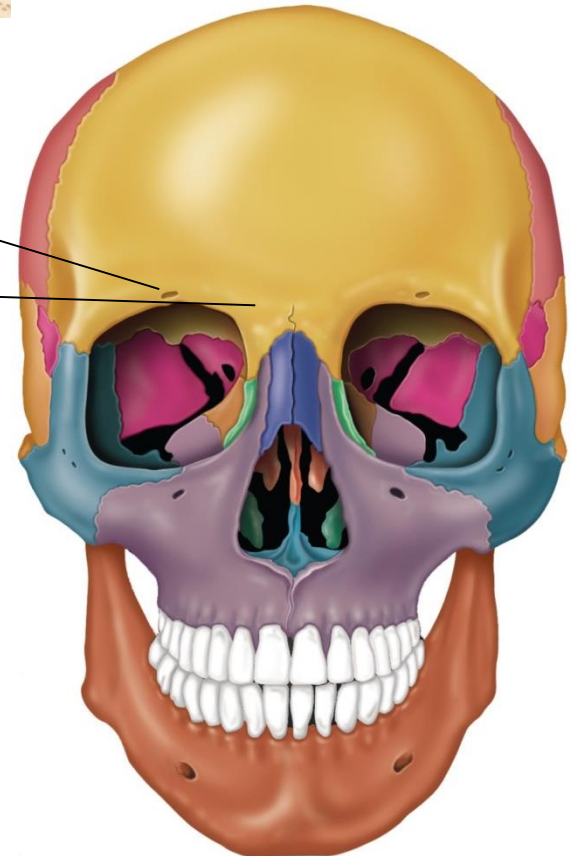
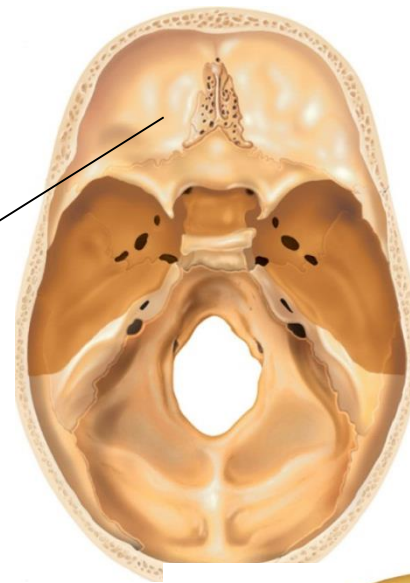


Figure 7.4a

II. Bones of Cranium

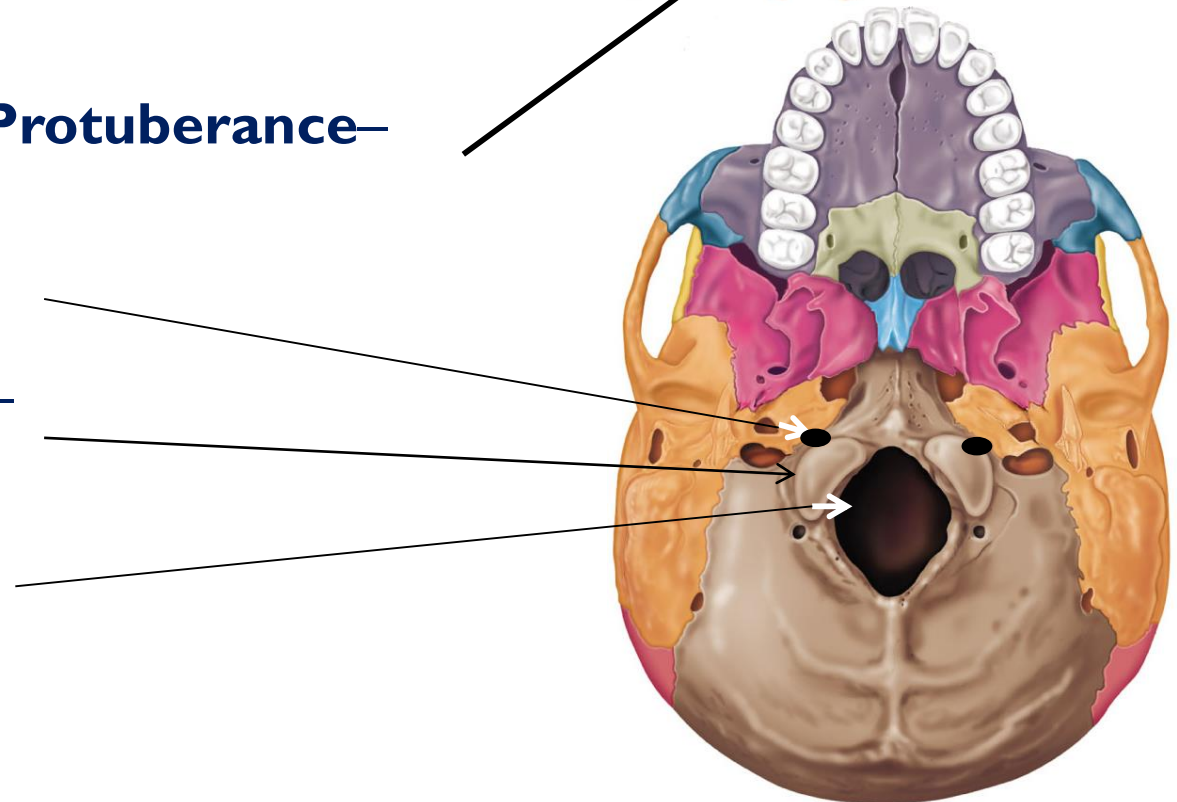
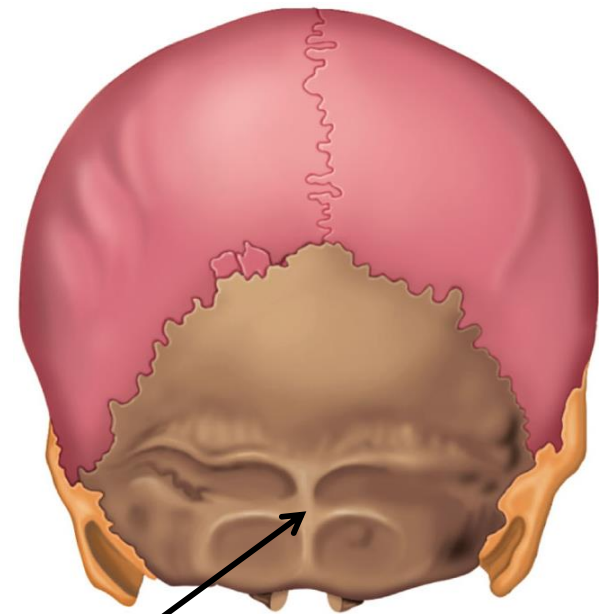
A. Frontal Bone

- Location:
- Anterior cranial fossa
- Orbits—
- **Supraorbital Foramen—**
- Frontal sinus



B. Occipital Bone

- Location
- posterior cranial fossa
- Articulates with:
- Attachment for:
- **External Occipital Protuberance**
- **Hypoglossal Canal**
- **Occipital Condyles**
- **Foramen Magnum**



- **Sinuses**

- Cavities that decrease the weight of the skull
 - Lined with mucous membranes
 - Protect the entrances of the respiratory system

- **Sutures**

- The immovable joints of the skull
- The four major sutures
 - Lambdoid suture
 - Coronal suture
 - Sagittal suture
 - Squamous suture

Occipital Bone

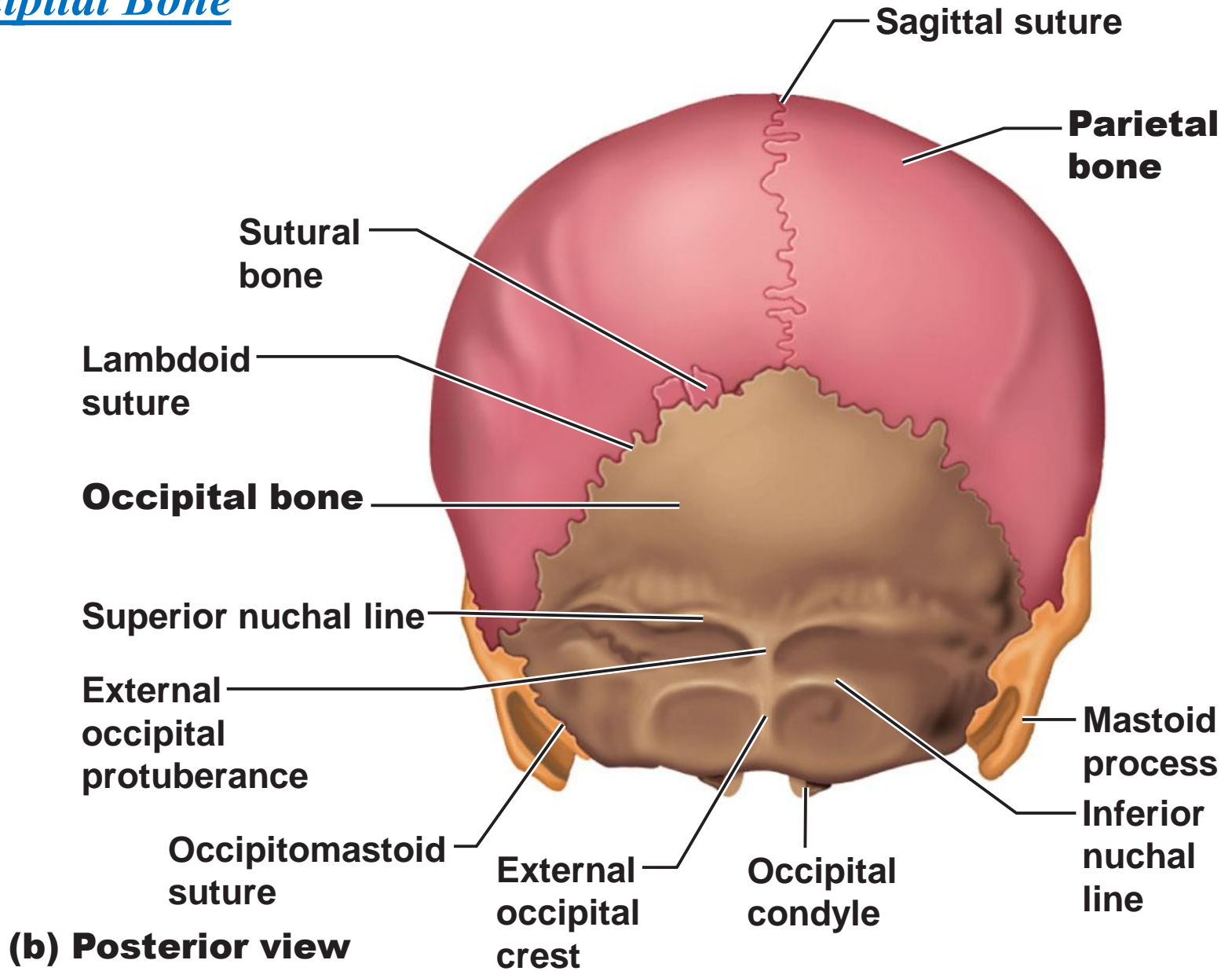
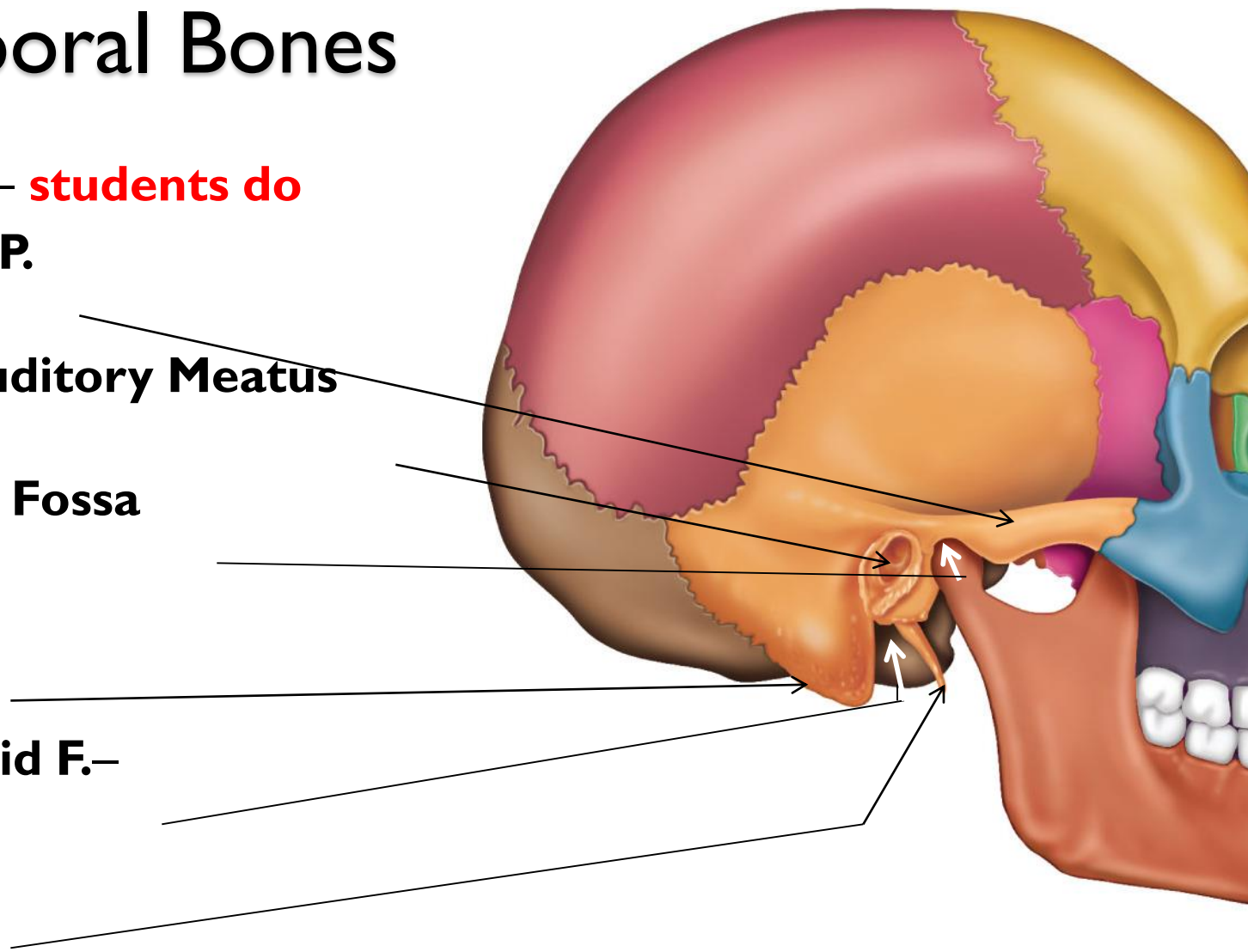


Figure 7.4b

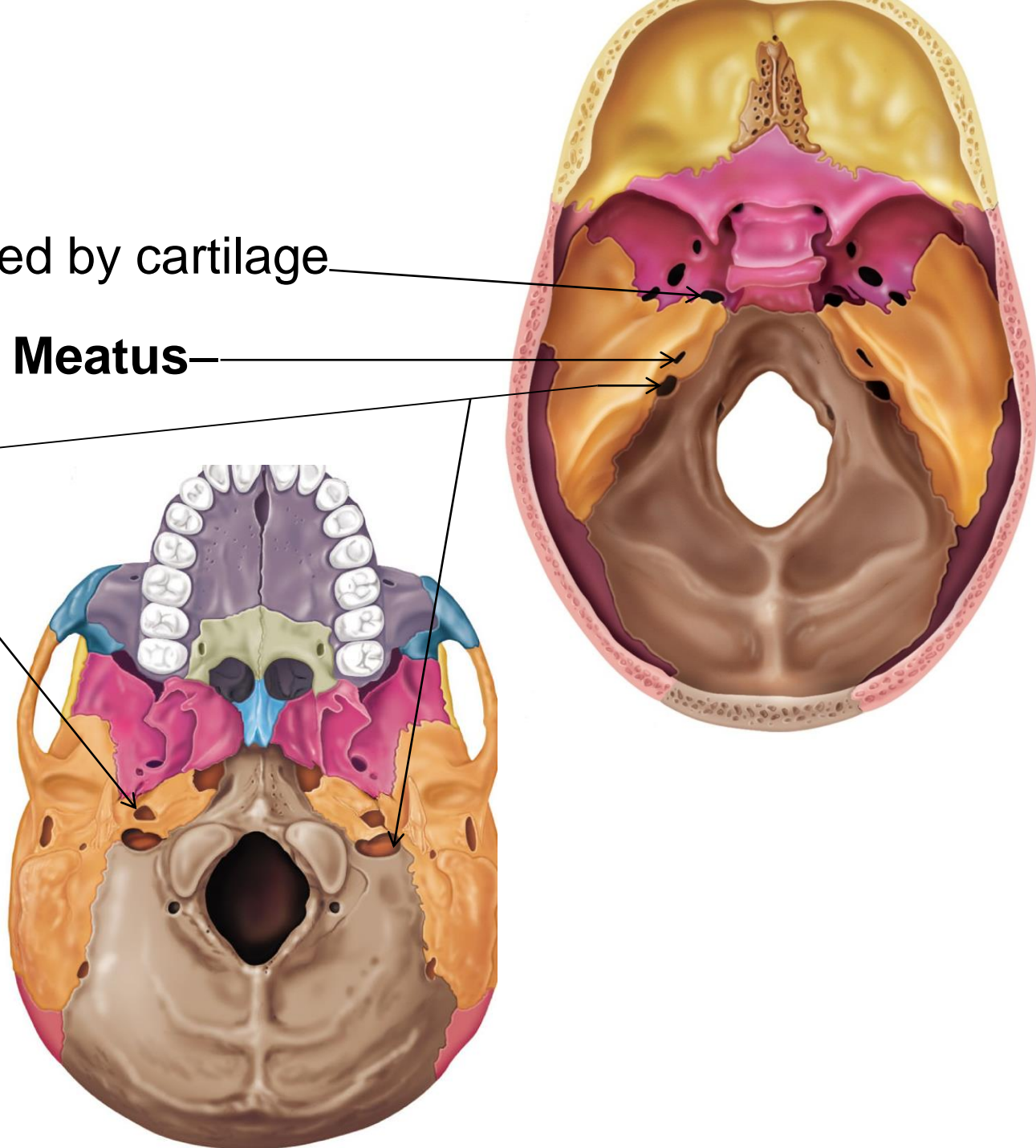
C. Temporal Bones

- Location:
- Four regions— **students do**
- **Zygomatic P.**
- **External Auditory Meatus**
- **Mandibular Fossa**
- **Mastoid P.**
- **Stylomastoid F.—**
- **Styloid P.—**



Temporal Bone ...

- **F. Lacerum**— closed by cartilage
- **Internal Auditory Meatus**
- **Jugular F.**
- **Carotid Canal**



• Foramina of the Temporal Bones

- **Carotid canal:** for internal carotid artery
- **Foramen lacerum**
 - For carotid and small arteries
 - Hyaline cartilage
 - Auditory tube
- **External acoustic meatus (canal):** ends at *tympanic membrane*
- **Stylomastoid foramen:** for facial nerve
- **Internal acoustic meatus (canal)**
 - For blood vessels and nerves of the inner ear
 - Facial nerve

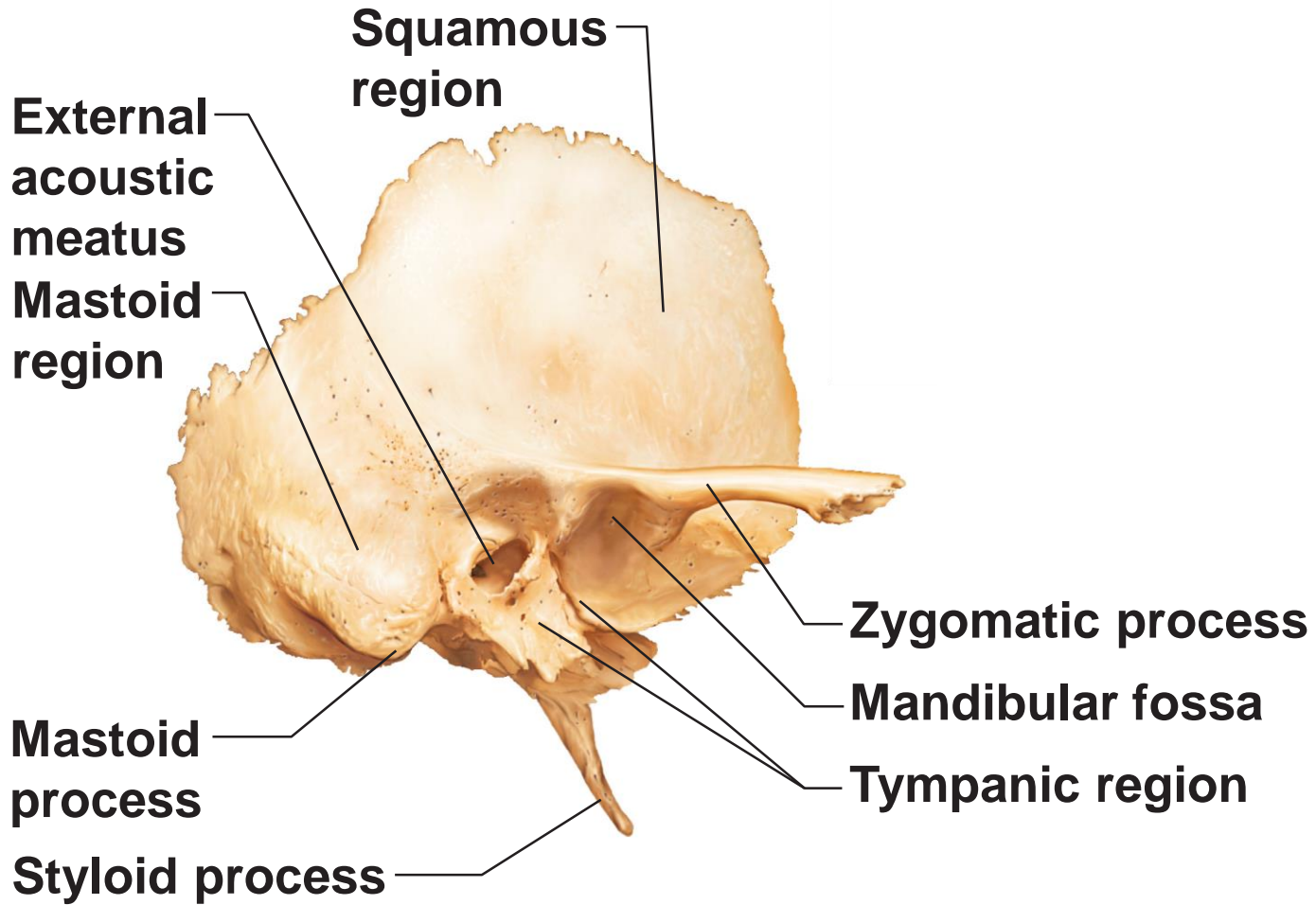
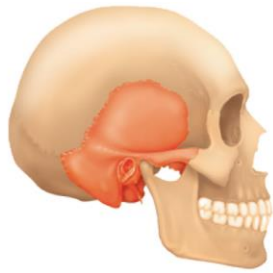
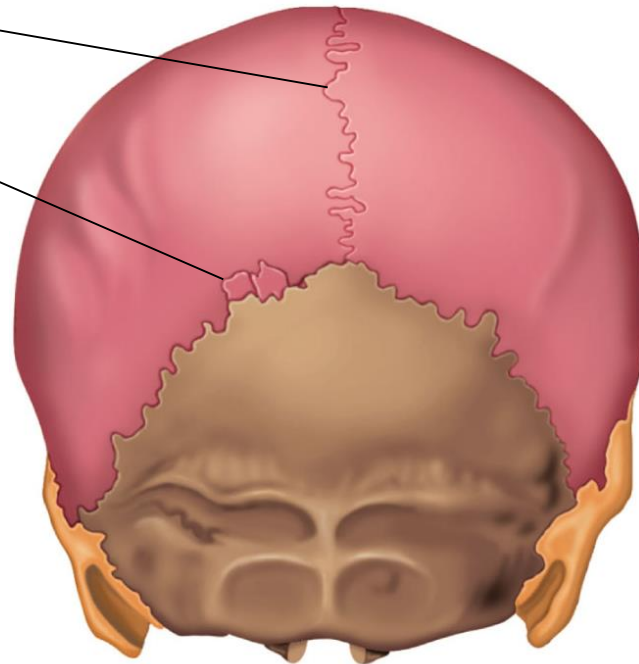
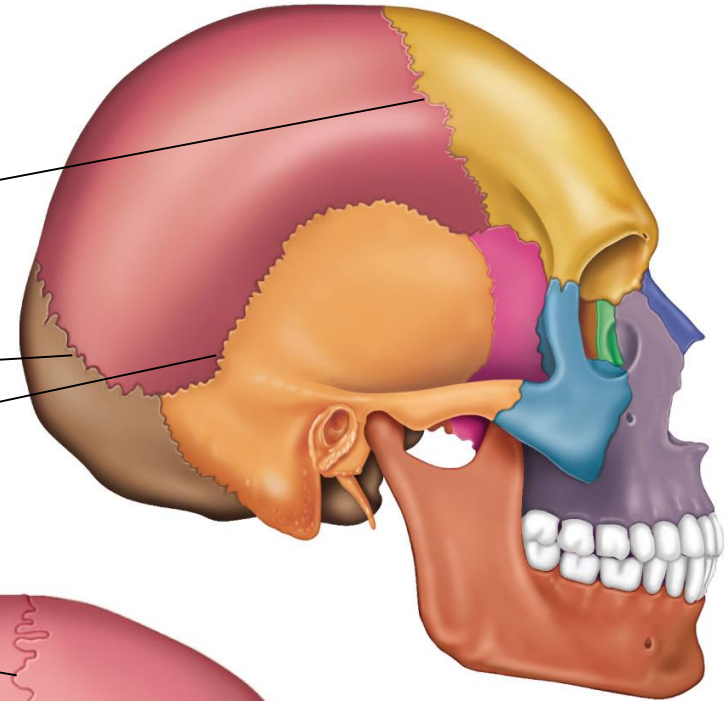


Figure 7.8

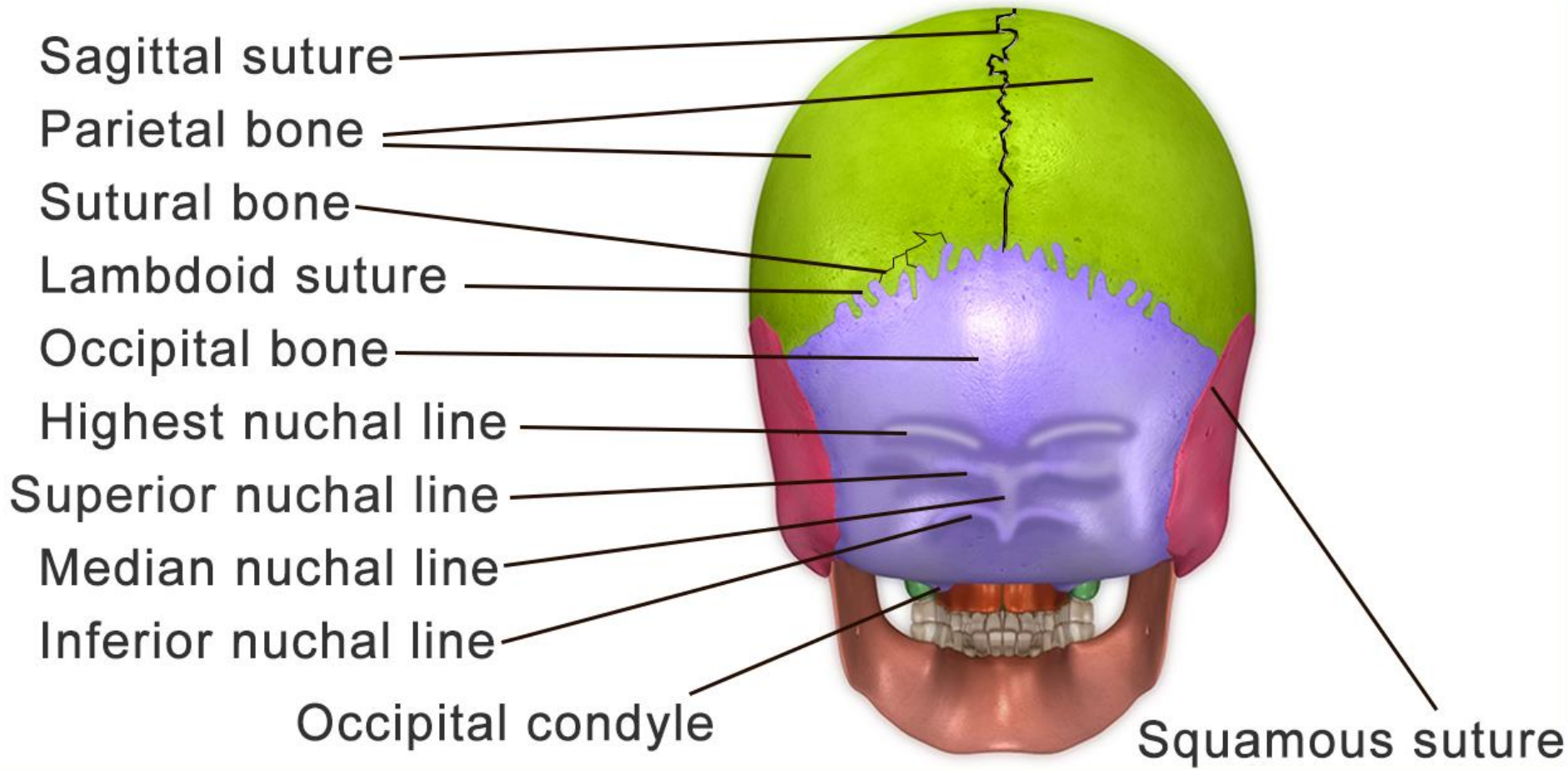
D. Parietal Bones and Major Associated

Sutures

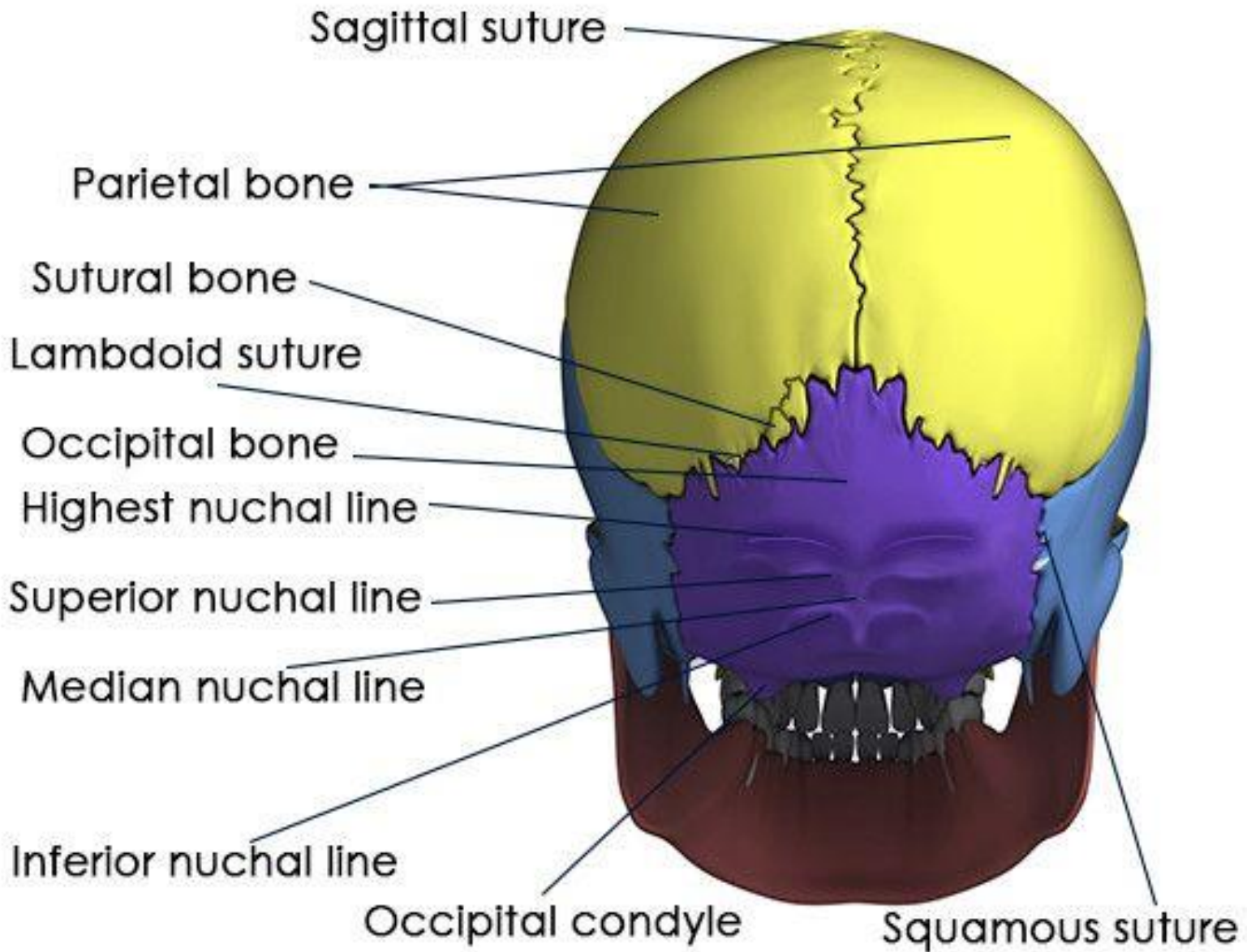
- Location
- 4 sutures
 1. 1 Coronal
 2. 1 Lambdoid
 3. 2 Squamous
 4. 1 Sagittal
- Sutural Bones:
 - .Tiny irregularly shaped bones that appear within sutures



POSTERIOR VIEW OF THE SKULL



POSTERIOR VIEW OF THE SKULL

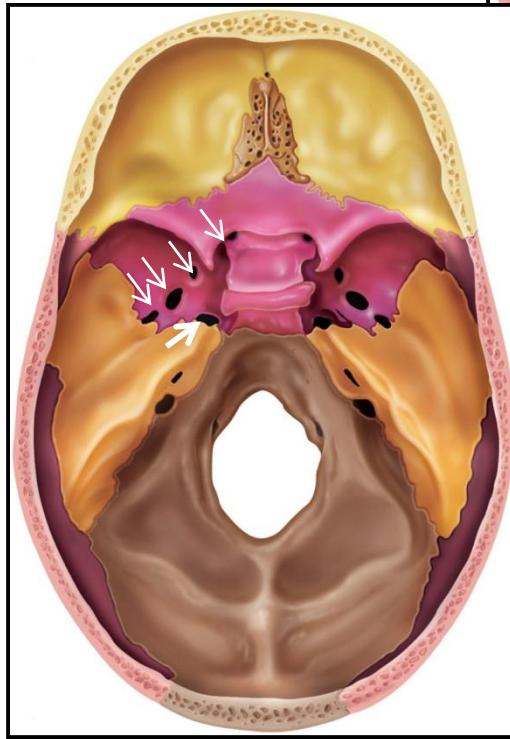
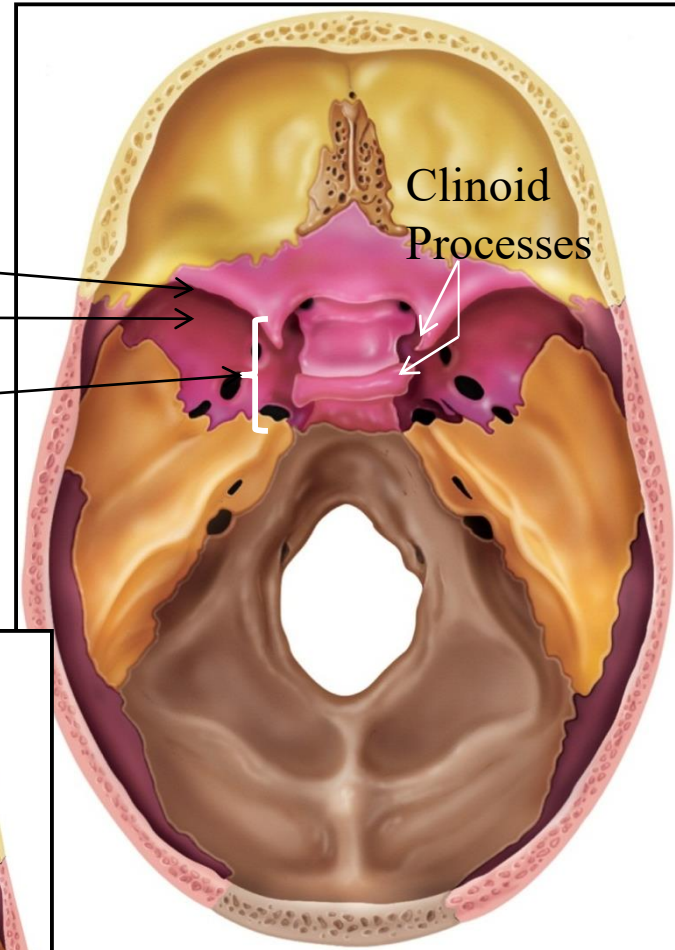



- **Lambdoid Suture**
 - Separates occipital from parietal bones
 - May contain **sutural (Wormian) bones**
- **Coronal Suture**
 - Attaches frontal bone to parietal bones
 - The **calvaria** (skullcap)
 - Consists of occipital, parietal, and frontal bones
- **Sagittal Suture**
 - Between the parietal bones
 - From lambdoid suture to coronal suture
- **Squamous Sutures**
 - Form boundaries between temporal bones and parietal bones

Sphenoid Bone

- Keystone bone:
- **Lesser Wing**
- **Greater Wing**
- **Sella Turcica**
 - Hypophyseal Fossa.—
 - Anterior Clinoid P.
 - Posterior Clinoid P.
- **Optic Canal**
- **F. Rotundum**
- **F. Ovale**
- **F. Spinosum**
- **F. Lacerum**

ANTERIOR



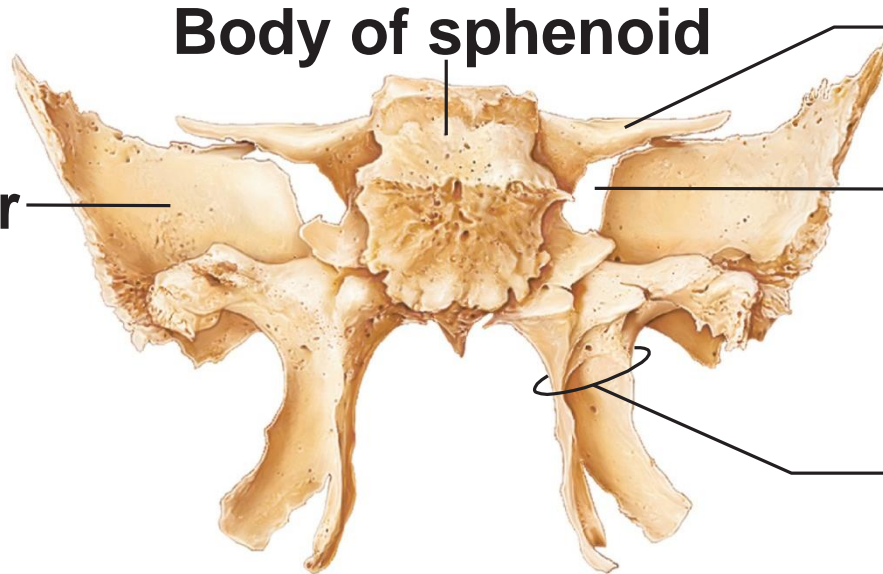
- 
- Foramina of the Sphenoid
 - **Optic canals:** for optic nerves
 - **Superior orbital fissure:** for blood vessels and nerves of the orbit
 - **Foramen rotundum:** for blood vessels and nerves of the face
 - **Foramen ovale:** for blood vessels and nerves of the face
 - **Foramen spinosum:** for blood vessels and nerves of the jaws

Sphenoid Bone ...

- **Superior Orbital Fissure–**
- **Lateral & Medial Pterygoid P.–**



Greater wing

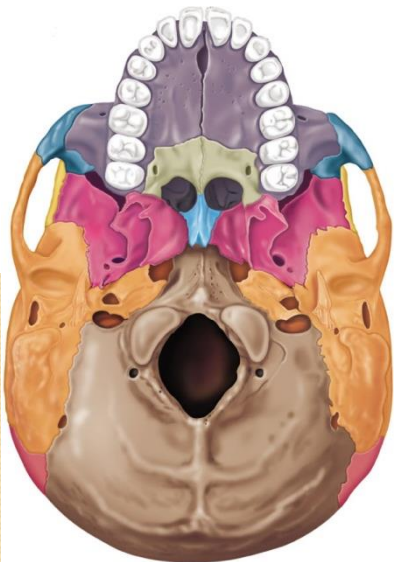


Body of sphenoid

Lesser wing

Superior orbital fissure

Pterygoid process



Thank You

