

# CHECK LIST FOR LABORATORY STUDY OF THE SKULL Croes, 2012

## Axial Skeleton

### Skull: Cranial Bones:

#### 1. Frontal Bone “front”

- |  |                           |
|--|---------------------------|
| a. Frontal squama                              | g. Orbital plate          |
| b. Superciliary arch                           | h. Ethmoidal notch        |
| c. Glabella                                    | i. Sagittal sulcus        |
| d. Supraorbital margin                         | j. Superior temporal line |
| e. Supraorbital notch or foramen               | k. Zygomatic Process      |
| f. Metopic (frontal) suture ( a fetal remnant) | l. Frontal Sinus          |

#### 2. Parietal Bones “wall”

- |   |                                       |
|---|---------------------------------------|
| a. Grooves for meningeal arteries       | c. Parietal eminence                  |
| b. Superior and inferior temporal lines | d. Groove for superior sagittal sinus |

#### 3. Occipital Bone

- |  |   |
|--|---|
| a. Occipital condyles                                  | g. Depression (impression) for the transverse sinus |
| b. External occipital protuberance                     | h. Sagittal sulcus                                  |
| c. Internal occipital protuberance                     | i. Pharyngeal Tubercle                              |
| d. Superior, medial and inferior nuchal lines (crests) | j. Foramen magnum                                   |
| e. Internal occipital crest                            | k. Hypoglossal canal                                |
| f. Basilar process or portion                          | l. Condylod (Condylar) canal                        |

#### 4. Temporal Bones

##### a. Squamous Portion “scale”

- 1) Zygomatic process
- 2) Mandibular (glenoid) fossa
- 3) Mandibular (articular) tubercle

##### b. Petrous Portion “rock”

- 1) Internal auditory meatus
- 2) Styloid process

##### c. Mastoid Portion “breast”

- 1) Mastoid process
- 2) Mastoid notch

##### d. Tympanic Portion “drum”

- 1) External auditory meatus

- 4) Temporal squama
- 5) Depression (impression) for the sigmoid sinus

- 3) Carotid canal
- 4) Stylomastoid foramen

- 3) Mastoid air cells
- 4) Mastoid foramen

## 5. Sphenoid Bone “wedge”

- a. Lesser wings
- b. Greater wings
- c. Body
- d. Pterygoid processes – lateral and medial plates
- e. Sella turcica
- f. Hypophyseal fossa
- g. Chiasmatic groove
- h. Tuberculum selle
- i. Dorsum selle
- j. Anterior and posterior clinoid processes
- k. Optic canal
- l. Superior orbital fissure
- m. Foramen rotundum
- n. Foramen ovale
- o. Foramen spinosum

## 6. Ethmoid Bone “sieve”

- a. Crista galli
- b. Cribriform (horizontal) plate
- c. Superior nasal conchae (turbinate) and meatus
- d. Middle nasal conchae (turbinate) and meatus
- e. Lateral mass – contains the labyrinth and ethmoidal air cells
- f. Perpendicular plate
- g. Orbital surface or plate (lamina orbitalis)
- h. Foramen cecum
- i. Olfactory foramina

## Facial Bones:

### 1. Maxilla (upper jaw)

- a. Alveolar processes
- b. Canine eminence
- c. Incisive fossa and foramen
- d. Palatine process (plate) of maxilla
- e. Zygomatic process of maxilla
- f. Frontal process
- g. Anterior nasal spine
- h. Infraorbital foramen

### 2. Zygomatic (cheek)

- a. Temporal process
- b. Frontal process
- c. Maxillary process
- d. Zygomaticofacial foramen

### 3. Palatine (palate)

- a. Horizontal process (plate)
- b. Posterior nasal spine
- c. Perpendicular (vertical) process (plate)
- d. Greater Foramen and Lesser Palatine Foramina

### 4. Lacrimal (tear)

- a. Lacrimal fossa or sulcus (groove)
- b. Lacrimal canal

### 5. Nasal (nose)

### 6. Inferior nasal Conchae (turbinate) (shell)

- a. Inferior meatus

**7. Vomer (plowshare)**

- a. Ala

**8. Mandible (lower jaw)**

- a. Ramus
- b. Body
- c. Angle
- d. Coronoid process
- e. Mandibular condyle (condylar process)
- f. Alveolar process
- g. Mandibular notch
- h. Mandibular foramen
- i. Mylohyoid line
- j. Oblique line
- k. Mental symphysis
- l. Mental protuberance
- m. Mental tubercle
- n. Sublingual fossa
- o. Submandibular fossa

**Additional Skull Structures****1. Sutures “seam”**

- a. Squamosal suture
- b. Lambdoidal suture
- c. Coronal suture
- d. Sagittal suture
- e. Transverse palatine suture
- f. Median palatine suture
- g. Occipitomastoid Suture

**2. Paranasal sinuses “air filled spaces nearby the nose”**

- a. Frontal sinus
- b. Ethmoidal air cells (sinus)
- c. Sphenoidal sinus
- d. Maxillary sinus

**3. Hyoid**

- a. Body
- b. Greater cornua (horn)
- c. Lesser cornua (horn)

**4. Foramina (holes) and Fissures**

- a. Carotid canal
- b. Condylar canal
- c. External auditory (acoustic) meatus (canal)
- d. Foramen cecum
- e. Foramen lacerum
- f. Foramen magnum
- g. Foramen ovale
- h. Foramen rotundum
- i. Foramen spinosum
- j. Greater palatine foramen
- k. Hypoglossal canal
- l. Incisive foramen (anterior palatine foramen)
- m. Inferior orbital fissure
- n. Infraorbital foramen
- o. Internal auditory (acoustic) meatus (canal)
- p. Jugular foramen
- q. Lacrimal canal
- r. Lesser palatine foramina
- s. Mastoid foramen
- t. Olfactory foramina
- u. Optic canal or foramen
- v. Stylomastoid foramen
- w. Supraorbital foramen or notch
- x. Zygomaticofacial foramen

**5. Middle Ear Bones – Ossicles (little bones)**

- a. Malleus “hammer”
- b. Incus “anvil”
- c. Stapes “stirrup”

**6. Cerebral Fossae – anterior, middle and posterior****7. External and internal Nares (choanae)****8. Fetal Skull**

- a. Anterior fontanel
- b. Anterior lateral fontanel
- c. External acoustic meatus
- d. Future coronal suture
- e. Future sagittal suture
- f. Future squamosal suture
- g. Posterior fontanel
- h. Posteriolateral fontanel