

# Skeletal System Lab

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## OVERVIEW OF THE SKELETON

### 1. Classification of bones by shape

- List the four (4) bone shapes

- identify examples of each shape on the skeleton

### 2. Haversian system (osteon) of compact bone

- Sketch an idealized osteon and label the following:
  - Haversian canal
  - lamellae
  - lacunae
  - osteocyte
  - canaliculi

- View a glass slide of compact bone.  
Sketch a region of a bone specimen that includes at least two osteon units.

- Are any of the structures from your idealized sketch above not clearly visible in the prepared slides? If so, name it (them).

- Name the two divisions of the skeletal system

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### 3. Axial Skeleton

- Name the three regions of the axial skeleton
  - \_\_\_\_\_, \_\_\_\_\_ & \_\_\_\_\_

- Next locate these regions on the skeleton, diagrams or yourself

b) **Skull**

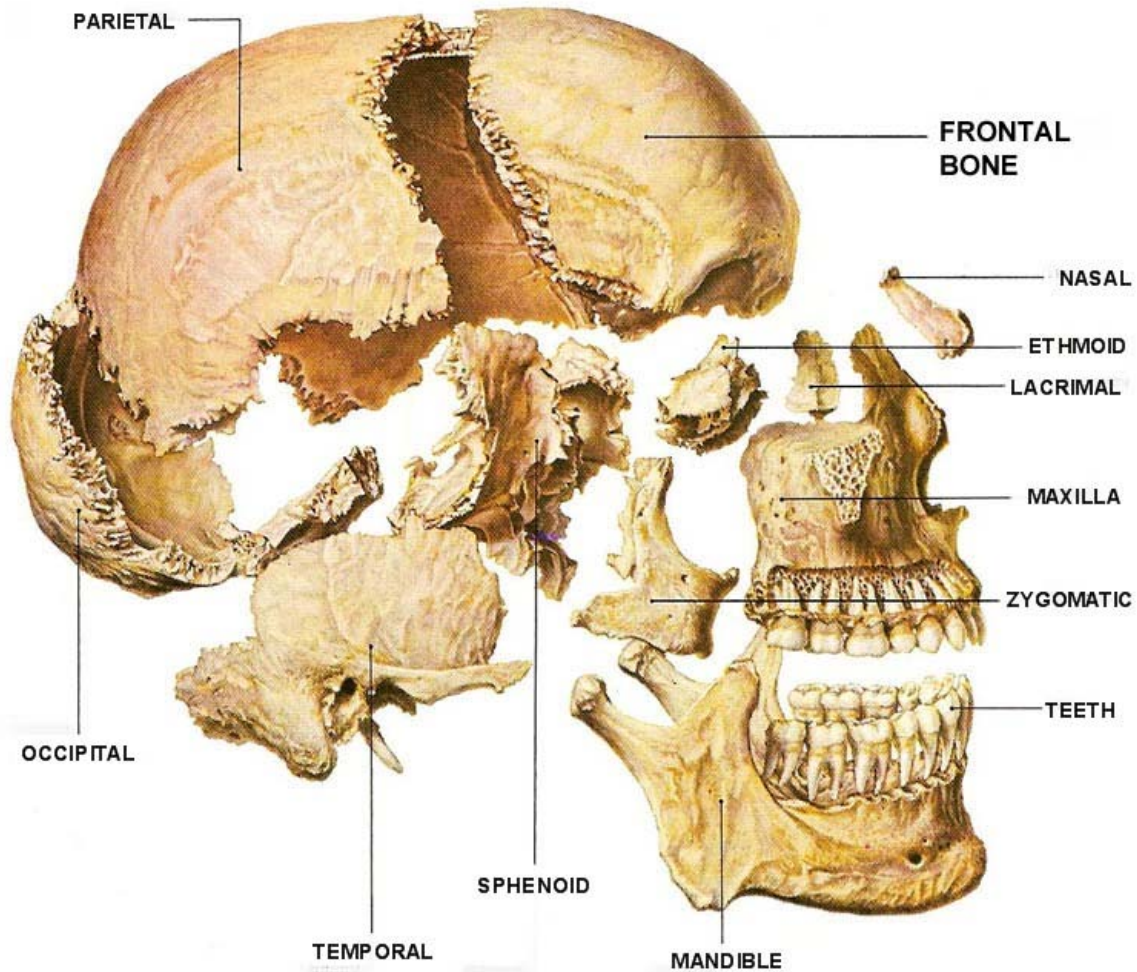
Using a skull and diagrams, identify the cranial and facial bones discussed in lecture

Cranial bones

- 1 – frontal bone
- 2 – parietal bones
- 1 – occipital bone
- 2 – temporal bones

Facial bones

- 2 – maxillae
- 2 – palatine bones
- 2 – zygomatic bones
- 2 – nasal bones
- 1 – mandible



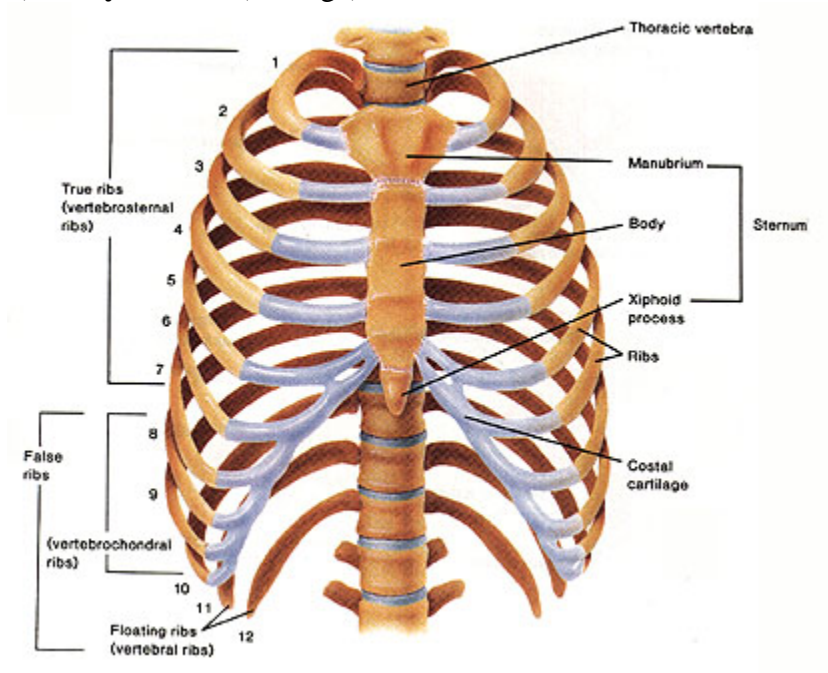
c) **Vertebral Column**

i. Using bones, the torso and diagrams, observe a typical thoracic vertebra.

ii. Sketch, identify and describe the functions of its parts:

- body
- facets
- vertebral foramen
- articular processes
- spinous and transverse processes
- intervertebral discs

d) **Bony Thorax** (rib cage)



- List the two principal functions of the rib cage  
1. \_\_\_\_\_  
2. \_\_\_\_\_
- Describe “true” and “false” ribs and their differences

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**4. Appendicular Skeleton**

a) Describe the two major regions of the appendicular skeleton

b) Using the skeleton and diagrams:

- Identify the bones of the pectoral and pelvic girdles and their attached limbs

Pectoral girdle

- scapula
- clavicle
- glenoid fossa
- humerus

Pelvic girdle

- coxal (hip) bones
- acetabulum
- femur

- Describe the relative functions and stability of the two girdles

- Locate the bones of the arm, wrist and hand
  - humerus
  - radius
  - ulna
  - carpals
  - metacarpals
  - phalanges
- Identify the bones of the leg, ankle and foot
  - femur
  - tibia
  - fibula
  - tarsals
  - metatarsals
  - phalanges

