

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**

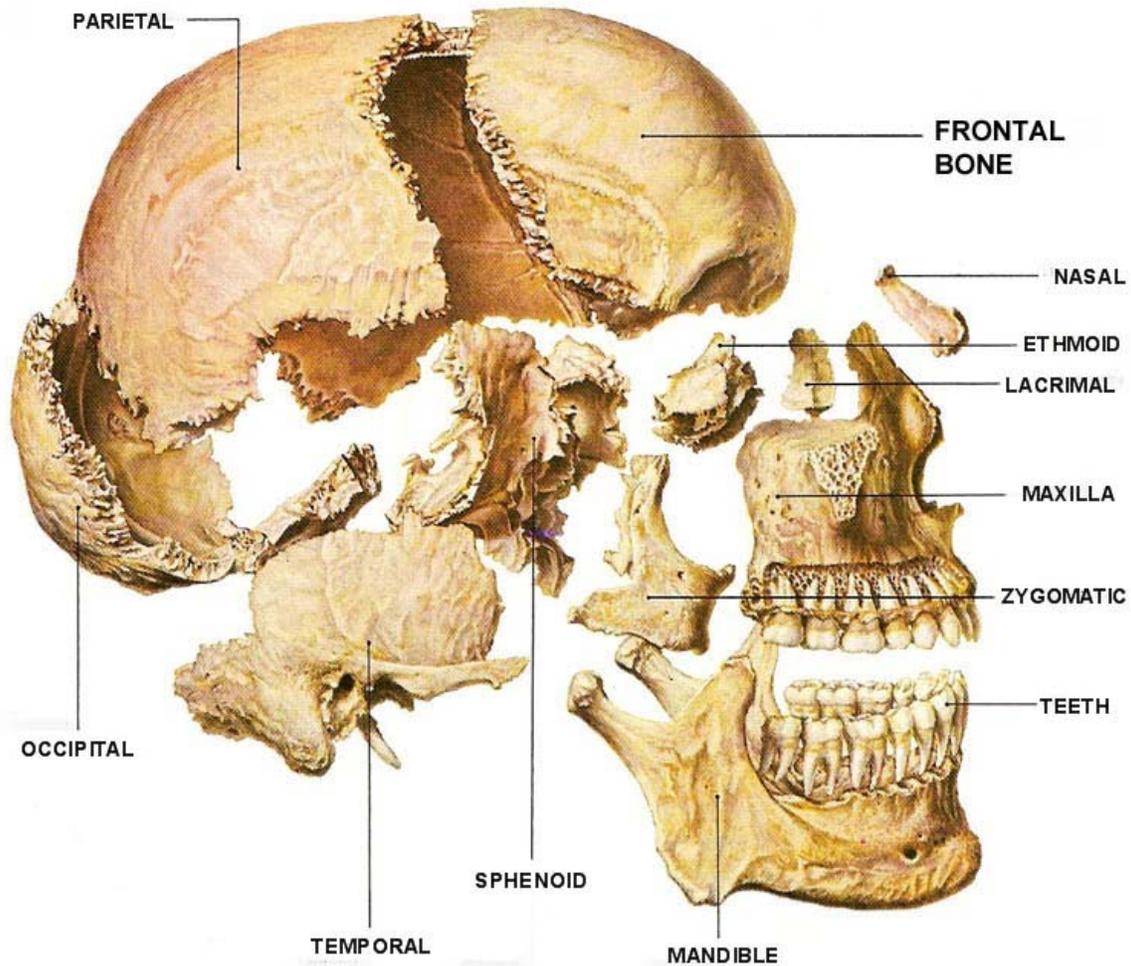
Using a skull and diagrams, identify the cranial and facial bones discussed in lecture

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



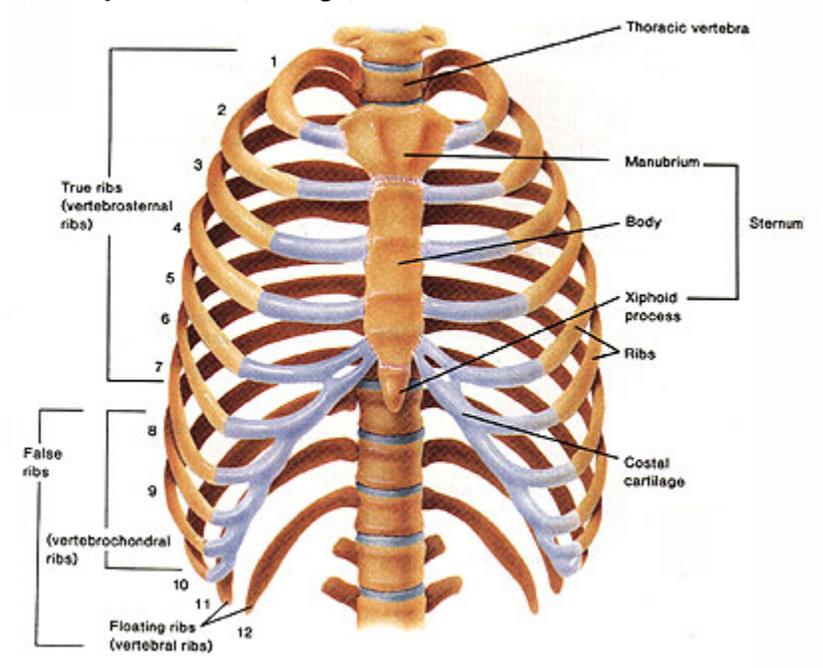
c) **Vertebral Column**

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

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

