

OL Lab 6: Skeletal system

Learning Objectives:

- Identify the two divisions of the skeleton.
- Identify the bony features found on bones and identify their functions

In this lab, you will use Anatomy TV to explore the skeletal system and correlate the anatomical structures to its functions. Please read the instructions before you begin with the lab.

Instructions:

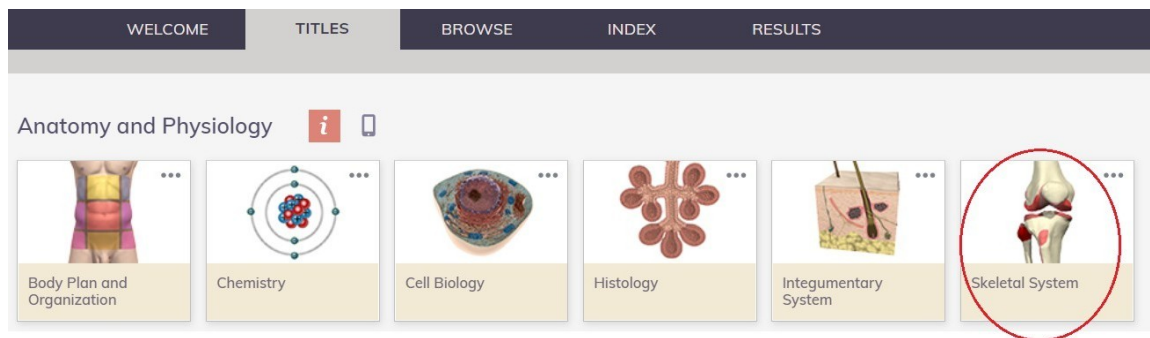
A. Preliminary steps:

1. Use the link below to log into Anatomy TV via Chamberlain Library.

[https://library.chamberlain.edu/az.php?q=.](https://library.chamberlain.edu/az.php?q=)



2. Select Anatomy TV under popular databases to access the site.
3. Select the 'Skeletal System' tile:



4. From the skeletal system module, select the interactive learning  module on the left hand side of the page.

B. Laboratory Steps

Part 1: Analysis of the Skull

1.1 Select the interactive learning: Skull:

Select the interactives circled in red.



1.2- On the image identify and select a one anatomical structure at a time.

The region selected will appear highlighted.

1.3- Use the controls at the bottom of the page as required. Follow the recommendations provided for each structure.



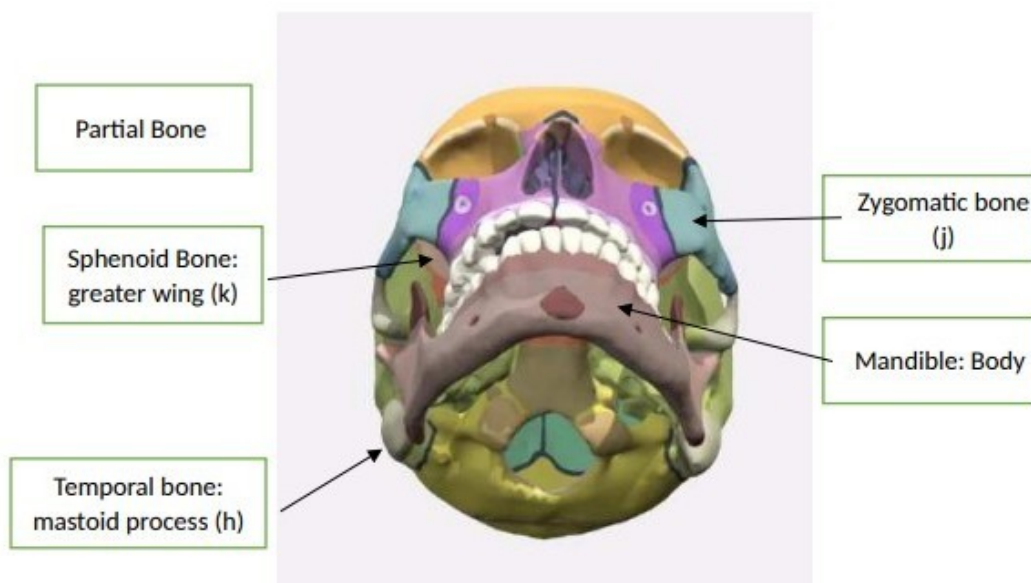
1.4- Take a screen shot of the image or save the image using the download icon  on the right hand side tab.

1.5- Create a word document titled "lastname_Lab 6". Import the image into the document. Use the functions 'Insert' and 'tool' (shapes) on word to label the images.

1.6- **In complete sentence write the functional role of the selected anatomical structure under the image.**

1.7- Save the file before you proceed to the next structure.

1.8- Follow these steps to analyze all the structures listed below.



Facial Bones:

- a. Bone: compact bone- Compact bone provides the bone with protection and strength
- b. Compact bone: lacunae-Lacunae provides passage ways through the extracellular matrix to the central canal for communication.
- c. Compact bone: osteon- Osteon are cylinder like structures osteocytes and the mineral matrix, which are connected by small tunnels called canaliculi that transport blood
- d. Periosteum-A dense fibrous membrane covering the surface of bones and serving as an attachment for tendons and muscles
- e. Bone: yellow bone marrow-Yellow bone marrow often found at the end of bones in adults, it is made of fat.
- f. Endosteum
- g. Bone: spongy bone
- h. Temporal bone: mastoid process
- i. Maxilla: alveolar process
- j. Zygomatic bone- Also known as cheekbones, which articulate with the frontal, maxilla, sphenoid and temporal bones.
- k. Sphenoid bone: greater wing
- l. Mandible: body- The lower jawbone, which is the strongest and largest facial bone. The mandible is the only bone that is moveable excluding auditory bones.

Use the layer controls to remove/add layers ending on layer 1 and rotation controls to rotate the model to frame 10 for the following structures.

