

Lab 05 – 3/10/14

Learning Objectives

By the end of this lab you should understand:

- The structure and function of bones and bone tissue
- The key bones and their locations in the body
- How to identify what bones articulate with what other bones

Key facts:

- All bones are composed of compact bone made of osteons and spongy bone made of trabeculae filled with marrow
- Some bones have synovial (movable) joints while others have immovable joints, but all except the hyoid have at least one joint

Key skills:

- Identify a bone by sight
- Identify the location and/or functions of selected bones by name
- Identify bone tissue under a microscope
- Distinguish between major types of joint movements

Lab Procedure:

- Exercise #8: The Skeletal System
 - Activity #2: Microscope slide
 - Activities #3-6: Identifying bones
 - Activity #8: Joint movements
- Individual lab quiz credit: identifying bones and bone locations
- Group lab quiz: Activity #8: demonstrations of joint movements

Sample lab exam questions:

- True/False: Compact bone is made of osteons
- What is an osteoblast's function?
- Name a bone located in the pectoral girdle
- Identify this bone
- Identify a bone found in your arm
- Identify the location of the fibula

Bone ID List:

- Skull
 - Frontal bone
 - Temporal bone
 - Parietal bone
 - Occipital bone
 - Sphenoid bone
 - Maxilla
 - Mandible
 - Zygomatic bone
- Vertebral column
 - Vertebra
 - Body
 - Vertebral foramen
 - Sacrum
 - Coccyx
- Ribcage
 - Rib
 - Sternum
 - Costal cartilage
- Pectoral girdle
 - Clavicle
 - Scapula
 - Humerus
 - Radius
 - Ulna
 - Carpals, metacarpals, and phalanges
- Pelvic girdle
 - Os Coxa (Hip bone)
 - Femur
 - Patella
 - Tibia
 - Fibula
 - Tarsals, metatarsals, and phalanges

Joint Movement List:

- Flexion/Extension
- Adduction/Abduction
- Rotation/Circumduction
- Pronation/Supination