

PART 1 Using one of the model skeletons in the lab, be able to show to the instructor, where you can find an example of each of the following:

A **suture**

(you can find multiple locations of this on the model)

Examples: sagittal suture, coronal suture, lambdoid suture, squamous suture + others

A **syndesmosis**

(imagination needed to visualize fibrous tissue connecting the bones)

Examples: interosseous membrane between radius and ulna,
interosseous membrane between tibia and fibula, ligaments at distal tibiofibular joints

A **gomphosis**

(imagination needed to visualize the sockets and roots of teeth inside the bone)

Examples: roots of teeth inside sockets in mandible and maxilla

A **synchondrosis**

(imagination needed to visualize the epiphyseal plate of hyaline cartilage inside the bone and only present in the skeleton of a person who is still young enough to be growing)

Examples: epiphyseal plate between head of humerus and metaphysis of humerus,
epiphyseal plates at proximal and distal ends of all long bones

A **symphysis**

(the fibrocartilage in these joints is modeled with a different color/consistency of plastic than that used in the bones of the model – remember: symphyses are located in the midline of the body)

Examples: pubic symphysis connecting the pubic bones, intervertebral discs connecting the vertebrae

A **synovial joint**

(imagination needed to visualize the articular cartilage, articular capsule, and synovial fluid at these joints)

Examples: shoulder, elbow, hip, knee, and others

PART 2A Using one of the model skeletons in the lab, be able to show to the instructor, where you can find an example of each type of synovial joint.

PART 2B For each of the following types of synovial joints, be able to say how many axes of motion are possible and be able to use one of your own body joints of that type to act out a motion for each possible axis.

A **planar joint**

Examples: intercarpal joints, intertarsal joints, sternoclavicular joints, acromioclavicular joints, sternocostal joints, vertebrocostal joints

Motions: no motions around an axis

A **hinge joint**

Examples: knee, elbow, ankle, interphalangeal joints

Motions: around one axis (monaxial or uniaxial – one degree of freedom of motion)

A **pivot joint**

Examples: atlanto-axial joint, radioulnar joint

Motions: around one axis (monaxial or uniaxial – one degree of freedom of motion)

A **condyloid joint**

Examples: metacarpophalangeal joints #2-5

Motions: around two axes (biaxial – two degrees of freedom of motion)

A **saddle joint**

Example: carpometacarpal joint #1

Motions: around two axes (biaxial – two degrees of freedom of motion)

A **ball-and-socket joint**

Examples: shoulder, hip

Motions: around three axes (multiaxial or polyaxial – three degrees of freedom of motion)