

# GCSE PE – LEARN SHEET (Year 10)

## Assessment 1)

**Joint Capsule:**

Tough tissue that surrounds the joint, supporting by ligaments to keep the joints in place

**Synovial membrane**

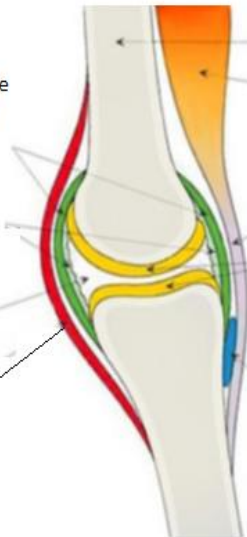
This produces synovial fluid to prevent friction at the joint

**Joint cavity**

This contains the synovial fluid to prevent friction at the joint

**Ligament**

Joins bone to bone



**Bone**

**Muscle**

**Tendons**

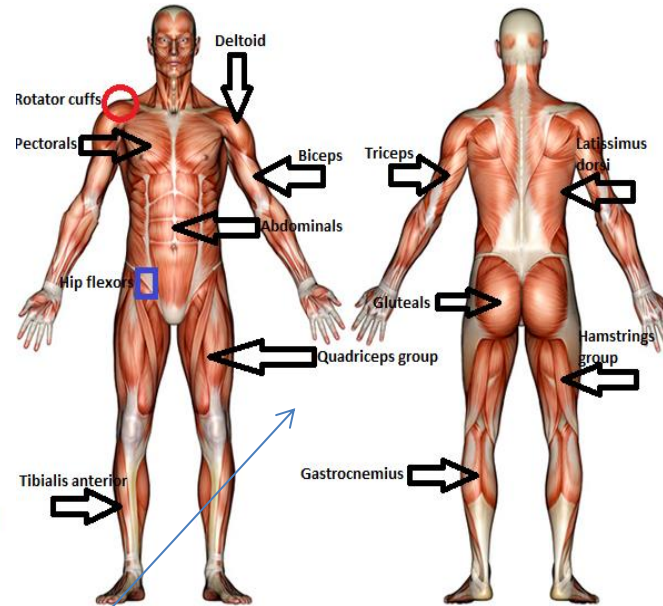
Attaches muscle to bone to allow movement

**Cartilage**

Spongy material at the end of each bone to provide a friction free surface

**Bursae**

Fluid filled bag on the outside of the joint that helps reduce friction from movement of the tendons



Phase 1

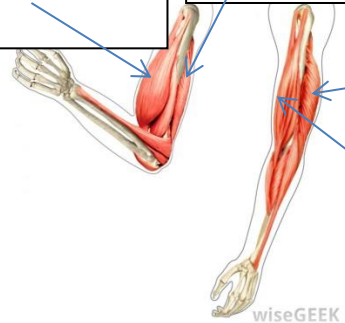
Prime mover/agonist - bicep

Antagonist - tricep

Phase 2

Prime mover/agonist - tricep

Antagonist - bicep



wiseGEEK

**Location of major muscles**

**Structure and description of parts of the joint**

**How movement occurs and muscles working in pairs at the shoulder, elbow, hip, knee & ankle**

**Location of the following bones & type of each bone:**

Scapula, sternum, vertebrae, humerus, ribs, patella, radius, talus, fibula, femur, pelvis, ulna, cranium

**Types of joint: Hinge, Ball and Socket**

Types of movement:

Flexion, extension, abduction, adduction, rotation, plantar flexion (ankle – toes pointing towards ground) dorsiflexion (ankle – toes pointed upwards)

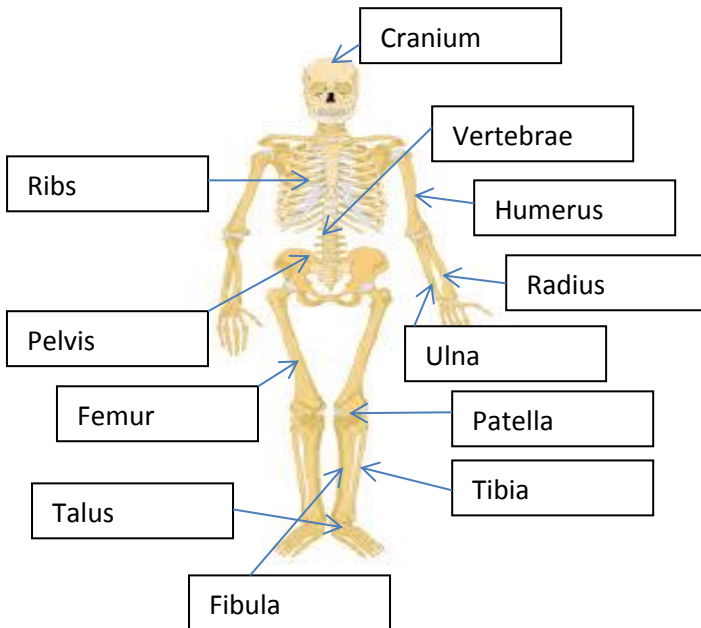
**Types of muscle contraction:**

Isotonic = muscle action where the muscle changes length

Concentric = isotonic contraction where the muscle shortens

Eccentric = isotonic contraction where the muscle lengthens (downward/braking movements)

Isometric = muscle action where the muscle stays the same length



**Functions of the skeleton:**

Protection, production, mineral storage, shape/structure, support, movement