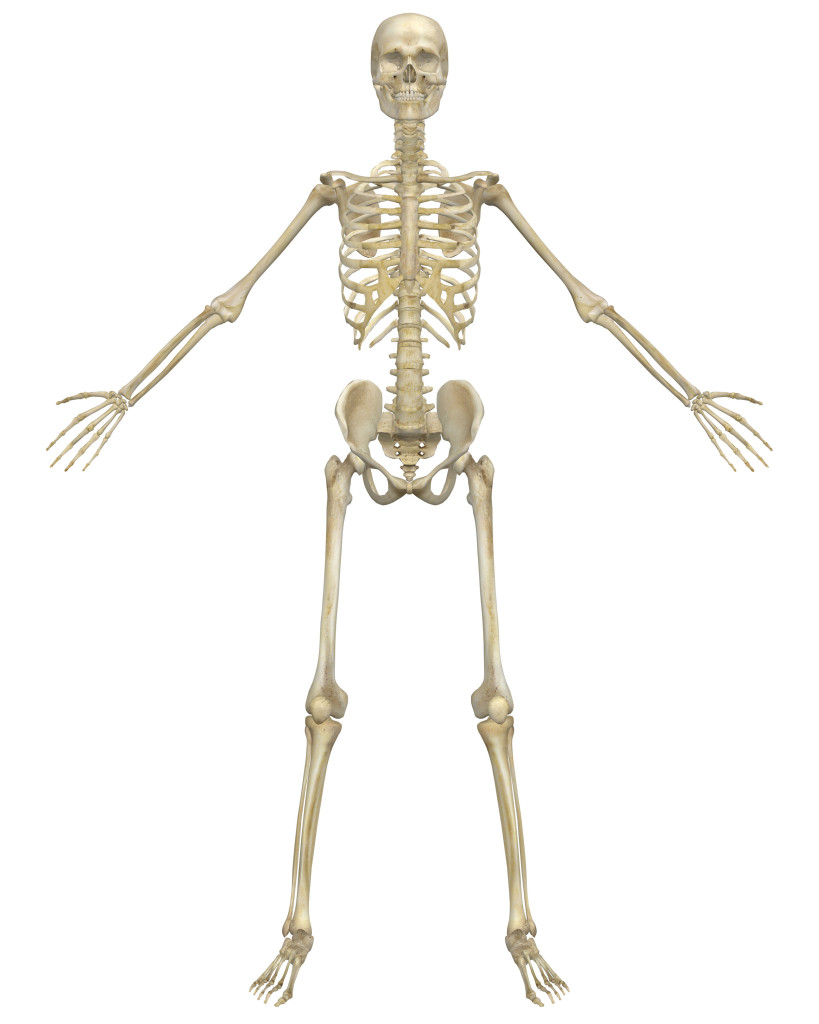
|  |  |
| --- | --- |
| **Subject** | L3 CTEC Sport |
| **Teacher** | Zoe Bailey |
| **Subject Context** | The anatomy and physiology of the human body is integral to the study of sport. Understanding how our body operates allows us to begin to understand, control and improve human movement. |
| **Resources required** | Laptop (or pen and paper)  Internet (desirable not essential)  [www.brianmac.co.uk](http://www.brianmac.co.uk)  [www.theeverleaner.com](http://www.theeverleaner.com)  CTEC Sport text book <https://www.hoddereducation.co.uk/subjects/sport-pe/products/level-3/cambridge-technicals-level-3-sport-and-physical-ac> |
| **Assignment details** | Complete the following 15 questions and activities. There is an extension activity at the end should you wish to complete the assessment questions |

**Level 3 Cambridge Technical: Sport & Physical Activity**

1. Label the skeleton



**Axial skeleton**, i.e.

• cranium

• sternum

• ribs

• vertebral column

o cervical vertebrae

o thoracic vertebrae

o lumbar vertebrae

o sacrum

o coccyx

**Appendicular skeleton**, i.e.

• scapula

• clavicle

• humerus

* Ulna
* radius

• carpals

• metacarpals

• phalanges

• ilium

• ischium

• pubis

• femur

• patella

• tibia

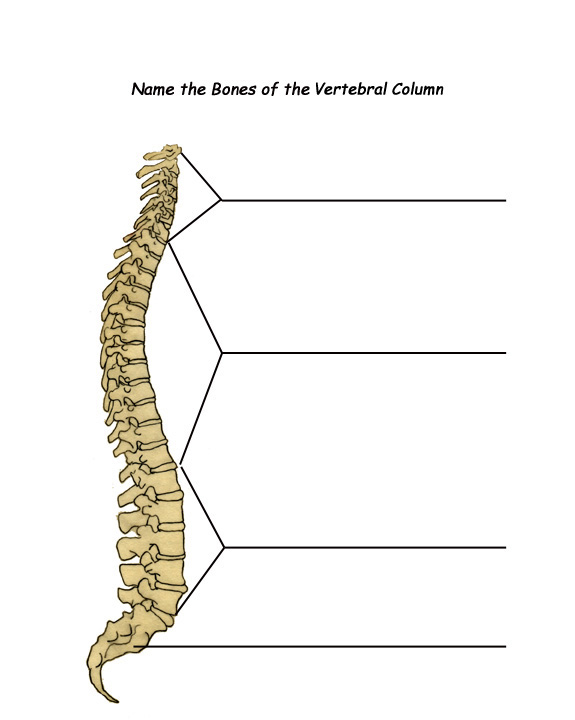
• fibula

• tarsals

• talus

• metatarsals

**The Vertebral Column**

Name/label the bones of the vertebral column & add any other relevant detail. Consider the structure and function.

1. Name three bones of the appendicular skeleton
2. Name three bones of the axial skeleton
3. What are the functions of the skeleton?
4. Give one function of a long bone and a different function of a flat bone.
5. Aside from long and flat bones, name the other three types of bone
6. Are the vertebrae: (tick the correct answer
7. Fixed joints
8. Slightly moveable joints
9. Freely moveable joints
10. Give the other name for freely moveable joints
11. Name the six different types of joint
12. Synovial joints contain the following structures. Complete the table below

|  |  |  |
| --- | --- | --- |
| Structure | Description | Function |
| articular/hyaline cartilage |  |  |
| synovial membrane |  |  |
| synovial fluid |  |  |
| ligaments |  |  |
| menisci |  |  |
| pads of fat |  |  |
| bursae |  |  |
| joint capsule |  |  |

1. What are the short term effects of exercise/training on the skeleton?
2. What are the long term effects of exercise/training on the skeleton?
3. Label the muscle diagram below

shoulder – deltoid, latissimus dorsi, pectoralis major, trapezius, teres major

elbow - biceps brachii, triceps brachii

radio-ulnar - pronator teres, supinator muscle

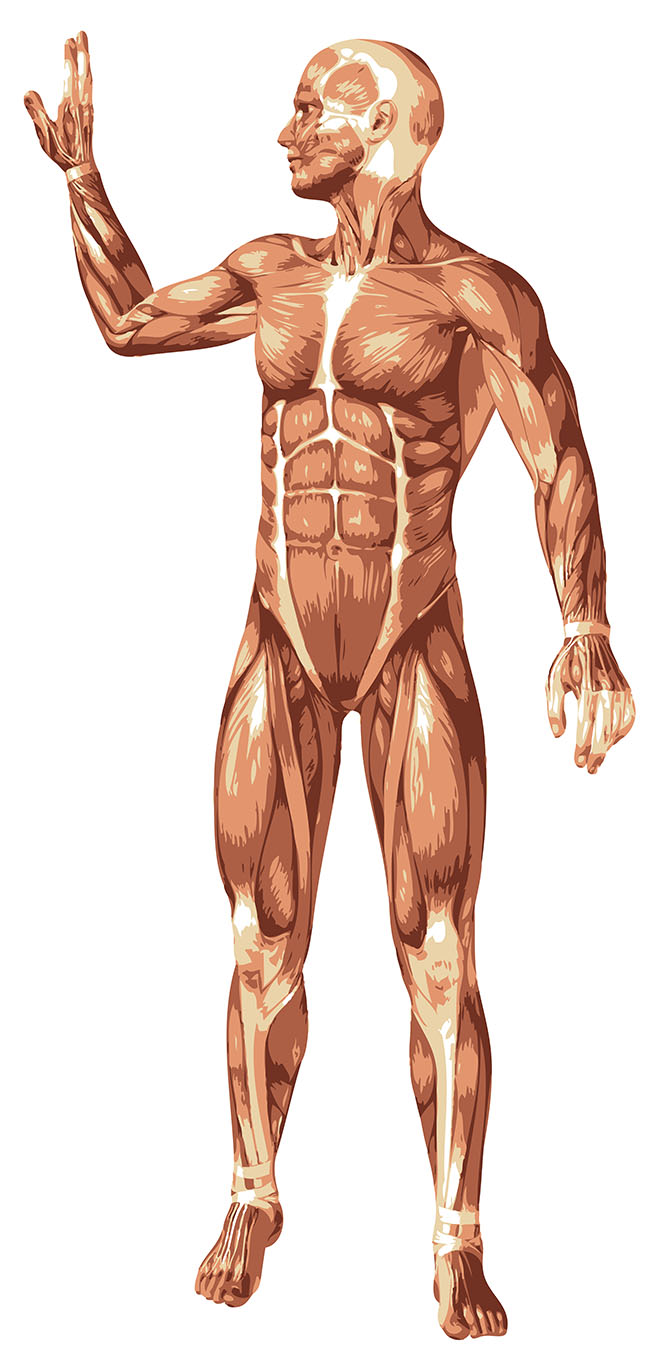
wrist - wrist flexors, wrist extensors

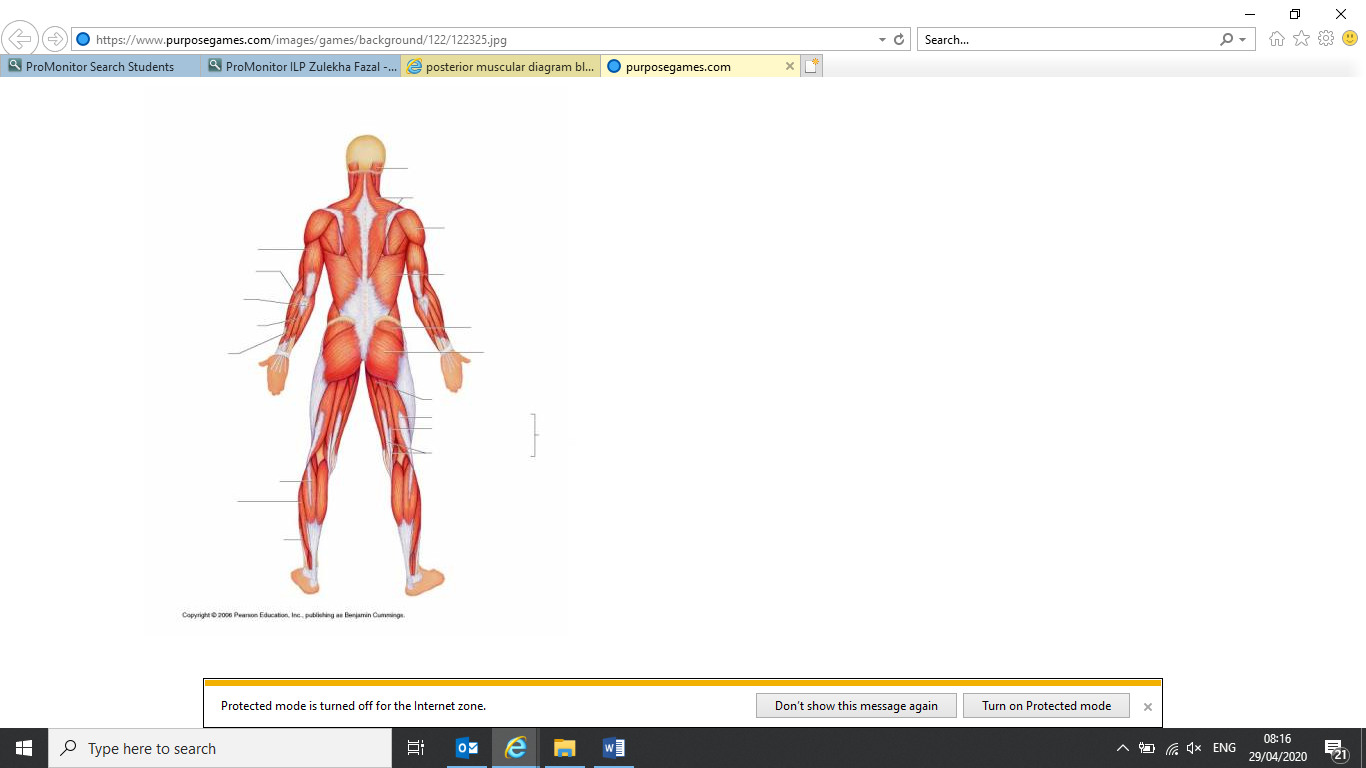
vertebral column - rectus abdominus, erector spinae group, internal and external obliques

hip – iliopsoas, gluteus maximus, gluteus medius, gluteus minimus, adductor longus, adductor brevis, adductor magnus

knee - rectus femoris, vastus medialis, vastus intermedius, vastus lateralis, biceps femoris, semimembranosus, semitendinosus

ankle - tibialis anterior, gastrocnemius, soleus



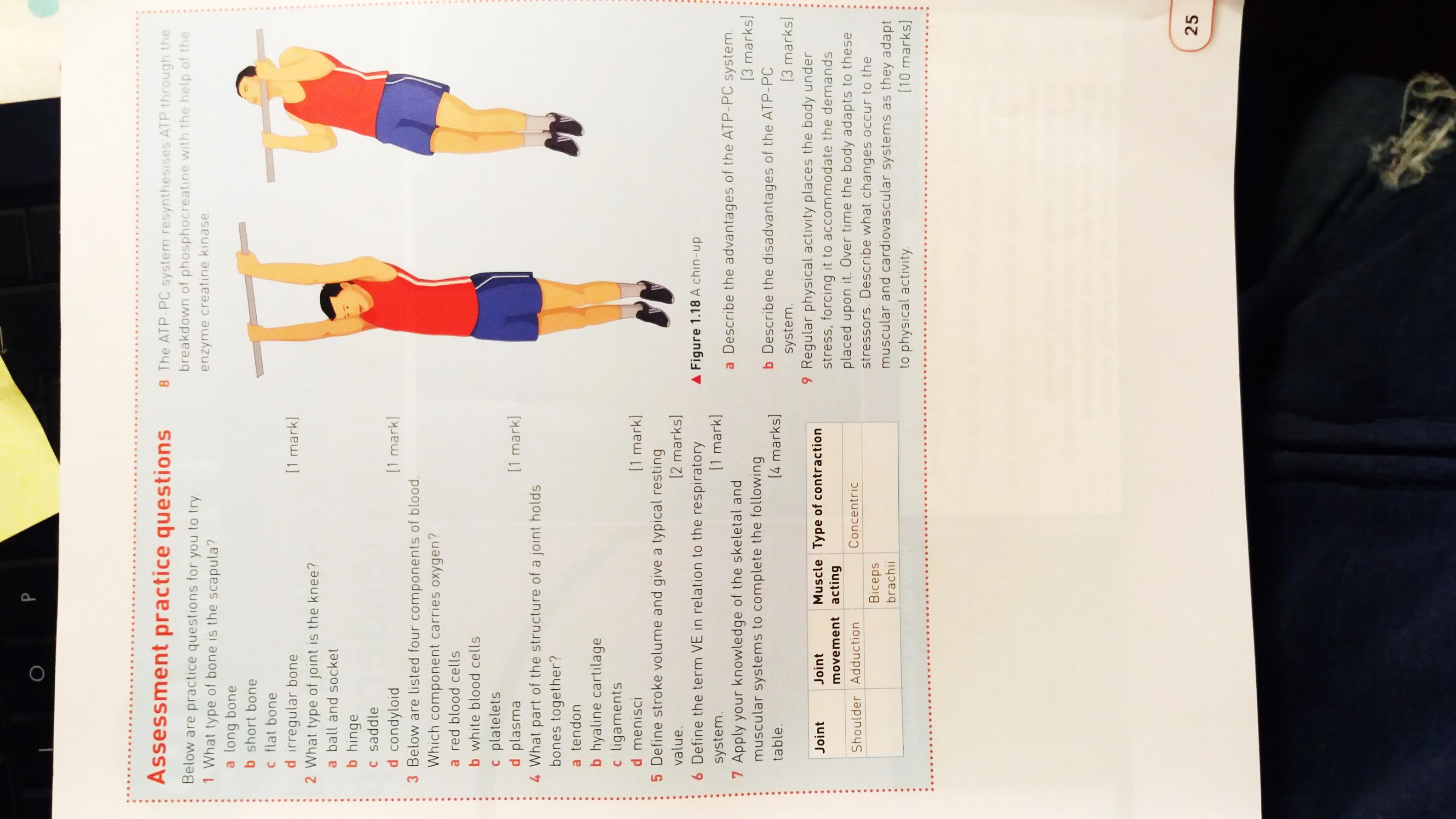


1. What is the difference between a ligament and a tendon?
2. There are three different muscle fibre types. Identify their structure, function and the type of activity in which they would dominate.

|  |  |  |
| --- | --- | --- |
| Structure | Function | Type of activity |
| slow oxidative |  |  |
| fast oxidative |  |  |
| fast glycolytic |  |  |

1. **The three Energy Systems – use the table below to research and**

|  |  |  |  |
| --- | --- | --- | --- |
|  | **ATP-PC/Alactic System** | **Lactic Acid System** | **Aerobic System** |
| **Type of Reaction (Aerobic or Anaerobic)** |  |  |  |
| **Chemical or Food fuel** |  |  |  |
| **Amount of ATP produced** |  |  |  |
| **By-products** |  |  |  |
| **Additional Info** |  |  |  |

**Extension Activity – Assessment practice questions**