Task:
Using the word bank at the bottom of the page, identify the anatomy of an equine limb.

**WORD BANK**
- Suspensory ligament
- Splint bone
- Proximal suspensory ligament
- Superficial digital flexor tendon
- Extensor muscle
- Coffin bone
- Extensor branch of suspensory ligament
- Deep digital flexor tendon x2
- Canon bone
- Superficial distal sesamoidean ligament
- Navicular bone
Equine Distal Limb Dissection

Possible Tendon Injuries

**Tendinitis:**

The inflammation of a tendon, usually caused by over-exercising at high-speed and fatigue. It can usually be treated by hosing, anti-inflammatory medication and rest, but sometimes it may require surgery. In the picture we can see tendinitis of the Superficial Digital Flexor Tendon.

**Effusion of the Tendons Sheath:**

The Sheath is a thin layer of tissue that surrounds tendons and helps protect them. Effusion means the sheath is swollen because of fluid build-up, this can usually be treated by icing the area to reduce the swelling.
Horses are ‘unguligrades’, they walk on hooves and only one digit, it would be like us only walking on one of our fingers, can you imagine?

Horses evolved from an animal with 5 fingers, similar to the ones on a dog’s paw, however with time 2 of those fingers moved up and became part of the main bone called the cannon bone or 3rd metacarpal, and we now call them ‘splint bones’. Later, the 2 other fingers disappeared and now horses only walk on one digit, and this makes them faster. The bones inside the hoof are called: distal phalanx (coffin bone) and distal sesamoid (which is really small).

Horses are prey animals and herbivores, meaning other carnivore predators in the wild will try to catch them, this is why horses have to be fast to be able to escape! Horses therefore have no muscle in the distal limb, which is the part of the leg below the knee (carpus) and it’s the one you can see in the diagram. Having no muscle makes their leg lighter meaning they can run faster, but because they only have tendons and ligaments it’s easy for them to get injuries on their legs and they have to support a lot of force, this is why we protect their legs with boots and bandages.

Tendons link muscles to bones, they are made of collagen fibers and are very strong so they can transmit force and allow the horse to move properly. There are 2 types of tendons: flexor tendons which generate force to pick the horse’s legs up and they allow them to bend; extensor tendons have the opposite function, they help straighten the leg.

Ligaments link bones to other bones, and they work to support the horse and limit some movements to avoid injury.

Equine Science