**Bones of the Dog**

**There are 2 tasks to complete**

**Task 1**

Can you match these 10 bones to their location/structure/function?

1. Atlas, 2) Axis, 3) Cervical vertebrae, 4) Coccygeal vertebrae,

5) Lumbar vertebrae, 6) Sacral vertebrae, 7) Scapula, 8) Skull,

9) Thoracic vertebrae, 10) True ribs

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| **Bone** | **Location/Structure/Function** |
|  | Head – composed of several bones fused together for strength and protection of the brain. Bones include the occipital bone at the rear of the skull and the Osseum tentorium, as well as the jaw, 42 teeth and turbinates which line the nasal cavity |
|  | Neck – contains the spinal cord, providing protection to vital nervous tissue. Composed of 7 individual vertebral bones. In conjunction with muscles provides structure and support |
|  | Continuation of spine, containing the spinal cord and making up the dorsal part of the chest cavity. Composed of 13 vertebral bones. Has long projections near to the shoulders for muscular attachment. Relatively immobile.  |
|  | Continuation of spine, containing the spinal cord until the second vertebrae. Nerves then extend from here into the sacral and coccygeal areas. Provides support and structure to the lower back. Composed of 7 individual bones. Mobile – allowing flexion during faster gaits.  |
|  | Also known as sacrum or pelvis. Composed of 3 vertebrae, fused for strength and support. As fused, they lack invertebral discs |
|  | Tail – may also be referred to as caudal vertebrae. Number of bones varies with species. Contains nerves which branch out from the spinal cord, but does not contain the spinal cord itself. Main function is that of balance during high speeds |
|  | First cervical vertebrae. Provides support to the head and rotation, allowing the head to move up and down |
|  | Second cervical vertebrae. Works in conjunction with the atlas for motion – allows head to move side to side |
|  | Also known as the shoulder blade. A broad bone with a process for muscle attachment which helps to bring the leg forward during movement. Connects to the humerus |
|  | These are 7 bones. Connected to the sternum by cartilage. Protects and provides support to the thoracic cavity (i.e. lungs, heart) |
|  | Lower hindleg – Positioned at the front of the leg. Connected to the femur by a crucial ligament which is needed for leg stability.  |
|  | Lower hindleg – positioned at the rear of the leg. Support and stability |
|  | Upper hindleg – strong, thick bone that provides support to the skeleton and leg. Attached to the lower hindleg bones and pelvis for movement |
|  | Upper foreleg with processes for muscle attachment at the shoulder. This functions in moving and rotating the limb |
|  | Front bone of the lower foreleg. Has a pivot joint at each end to rotate and move the limb. Provides structure as connects elbow to the carpus |
|  | Rear bone of the lower foreleg. Runs parallel to the radius. Provides structure, support and movement |
|  | Also known as the wrist bone. Located in the foreleg. Support system, enabling movement through the paw |
|  | Paw bone of the foreleg, located between the carpus and phalanges. Connect the carpals to the phalanges. Forms the palm area |
|  | Also known as the heel bone. Located in the hindleg. Support system, enabling movement through the paw |
|  | Paw bone between the heel and phalanges of the hindleg. Connect tarsals to the phalanges. Forms the palm area |
|  | 3 bones. Digits of the paw (i.e. toe/finger bones). Singular are known as phalanx. The dog walks on these so they provide structure, support, movement and must be able to absorb impact whilst moving at high speeds |

**Task 2**

Research these bones and add their Location/Structure/Function within a dog

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| **Bone** | **Location/Structure/Function** |
| **Tibia** |  |
| **Fibula** |  |
| **Femur** |  |
| **Humerus** |  |
| **Radius** |  |
| **Ulna** |  |
| **Carpus** |  |
| **Carpals** |  |
| **Metacarpals** |  |
| **Tarsus** |  |
| **Tarsals** |  |
| **Metatarsals** |  |
| **Phalanges** |  |