

Comparative Anatomy

Shown below are images of the skeletal structure of the front limbs of 6 animals: human, crocodile, whale, cat, bird, and bat. Each animal has a similar set of bones. Color code each of the bones according to this key:

Humerus []

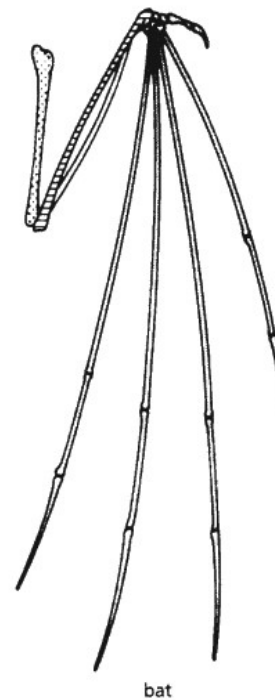
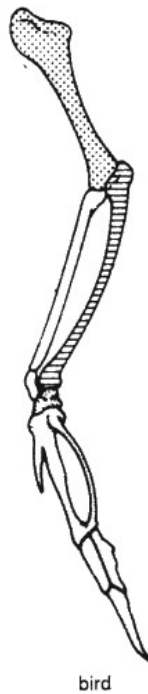
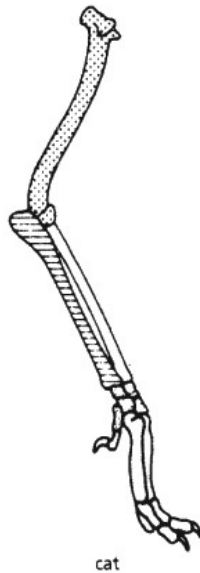
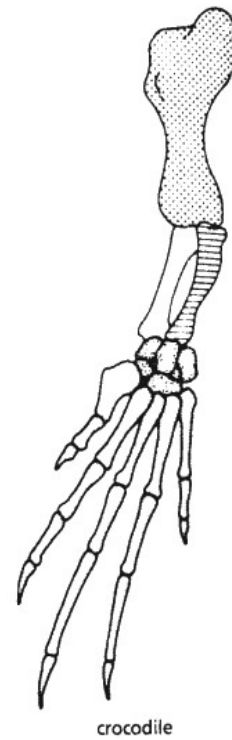
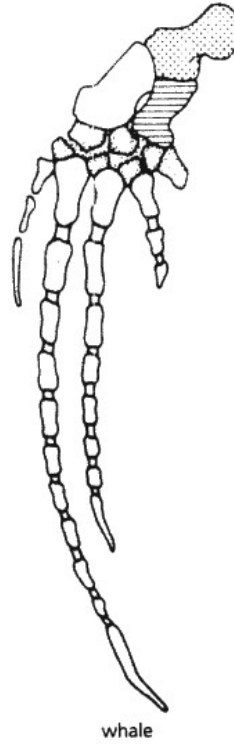
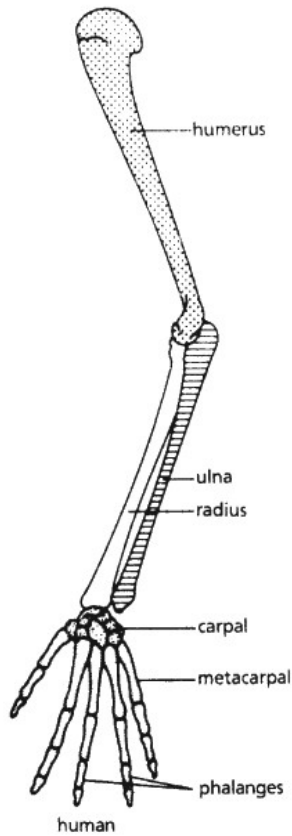
Carpals []

Ulna []

Metacarpals []

Radius []

Phalanges []



Name: _____ Class: _____ Date: _____

For each animal, indicate what type of movement each limb is responsible for.

Animal	Primary Functions
Human	Using tools, picking up and holding objects
Whale	
Cat	
Bat	
Bird	
Crocodile	

Compare the skeletal structure of each limb to the human arm. Relate the differences you see in *form* to the differences in *function*.

Animal	Comparison to Human Arm in Form	Comparison to Human Arm in Function
Whale	Whale has a much shorter and thicker humerus, radius, and ulna. Much longer metacarpals. Thumb has been shortened to a stub.	The whale fin needs to be longer to help in movement through water. Thumbs are not necessary as the fins are not used for grasping.
Cat		
Bat		
Bird		
Crocodile		