# Chapter 14: Vertebrates II

# Birds and Mammals

## 14A

How do the diets of birds benefit mankind? By controlling pest and rodent populations

How does a bird’s skeleton aid it in flight? It has air spaces and is very lightweight

How does a bird’s air sacs help it in flight? They allow the lungs to obtain oxygen while inhaling and exhaling, to keep up its energy for flight

How does a developing chick inside an egg get oxygen? Oxygen can pass through the shell and membrane

Why do birds incubate their eggs? (i.e. NOT just to keep them warm!) to keep the yolk and embryo from sticking to the wall of the egg so the chick develops normally

## 14B

What are the two unique characteristics of mammals? Bear live young, mammary glands, hair/fur

What is the function of the umbilical cord? To provide blood and nutrients from the mother to the developing baby

What is keratin? A protein in hair cells

List two marsupials. Kangaroo, koala bear, possums

List two monotremes. Platypus, echidna

List three characteristics of primates. Can stand up, have thumbs, have a prehensile tail

## Chapter Review Questions

Give an example of how a bird’s beak is designed for what it eats. Carnivores have sharp, hooked beaks; seed eaters have short thick beaks; fishers have long or swordlike beaks.

Name two birds incapable of flight. Ostrich, emu, penguin, turkey, chicken…

What are the five parts of a bird’s egg? Yolk, embryo, albumen (white), shell, shell membrane

What is a bellybutton? Where the umbilical cord was attached

Why aren’t bats classified with birds? Bats are mammals with hair, mammary glands, and live young

Why shouldn’t humans be classified with primates? They are made in the image of God, have a soul, and are capable of much higher functioning and reasoning

## Vocabulary 14:

Incubation

Air sacs

Mammary glands

Placenta

Umbilical Cord

Monotremes

Marsupials

Primates