

Reptiles and Birds

► Section 35-1: The Reptilian Body

Reptiles Share Several Key Characteristics

Complete each statement by underlining the correct term or phrase in the brackets.

1. Reptiles have strong, bony skeletons and toes [with / without] claws.
2. Reptiles are [endothermic / ectothermic].
3. The skin of reptiles is [dry / moist].
4. The eggs of reptiles [are almost watertight / are just like birds' eggs].
5. Reptiles respire through [lungs and gills / well-developed lungs].
6. The hearts of most reptiles are [completely / partly] divided by a septum.
7. Reptiles reproduce by [internal / external] fertilization.

Read each question, and write your answer in the space provided.

8. How do reptiles respond to cold weather?

9. Why must reptiles depend upon heat from their surroundings?

10. Why are reptiles better able to move on land than amphibians?

A Key Adaptation to Terrestrial Life Is Water Retention

In the space provided, write the letter of the description that best matches the term or phrase.

- | | |
|---------------------|---|
| _____ 11. amnion | a. allows oxygen to enter the egg and carbon dioxide to leave the egg |
| _____ 12. yolk sac | b. a membrane that encloses the embryo within a watery environment |
| _____ 13. allantois | c. contains the developing embryo's food supply |
| _____ 14. chorion | d. a membrane-covered cavity that stores waste products from the embryo and serves as the embryo's organ for gas exchange |

Reptiles Need More Oxygen Than Amphibians

Mark each statement below T if it is true or F if it is false.

- _____ 15. Reptiles need more oxygen than amphibians because reptiles are larger.
- _____ 16. The small, grape-shaped chambers called alveoli increase the respiratory surface area of a reptile's lungs.
- _____ 17. Strong muscles attached to the rib cage of reptiles move air into and out of the lungs.
- _____ 18. All reptiles have a septum that completely divides the left and right ventricles of the heart.

Reptiles Have Internal Fertilization

In the space provided, explain how the terms in each pair differ in meaning.

19. oviparous, ovoviviparous

20. internal fertilization, external fertilization

► Section 35-2: Today's Reptiles

Lizards and Snakes Have a Unique Jaw Design

Read each question, and write your answer in the space provided.

1. What is the distinguishing characteristic of snakes and lizards?

2. Why is it likely that snakes evolved from lizards?

3. How do snakes kill their prey?

4. What are the four families of venomous snakes?

5. What is a pit organ, and how does it help the timber rattlesnake catch prey?

6. What are Jacobson's organs, and how do they help the timber rattlesnake catch prey?

Other Orders of Reptiles Are Less Diverse

In the space provided, explain how the terms in each pair differ in meaning.

7. turtle, tortoise

8. carapace, plastron

Read each question, and write your answer in the space provided.

9. Why are the eyes of crocodiles and alligators on the sides of the head, and why are the nostrils on top of the snout?

10. What is the difference between the order Crocodylia and the other reptiles in the way they care for their young?

11. What is a tuatara?

► Section 35-3: Characteristics and Diversity of Birds

Birds Share Several Key Characteristics

Complete each statement by underlining the correct term or phrase in the brackets.

1. The wings of birds are modified from [forelimbs / ribs and breastbones].
2. The feet and legs of birds are covered with [feathers / scales].
3. The bones of birds are [lightweight / made of cartilage].
4. The metabolism of birds is [ectothermic / endothermic].
5. Birds have an [inefficient / highly efficient] respiratory system.
6. The ventricles of birds are [completely / partially] divided by the septum.

Read each question, and write your answer in the space provided.

7. Distinguish between contour feathers and down feathers.

8. Why do birds pull their feathers through their beaks in a process called preening?

9. Why are birds so light compared with similarly sized mammals?

10. Why do birds need to maintain a higher body temperature than do mammals?

11. What features of a bird's respiratory system make it highly efficient?

12. How do birds benefit from having a septum that completely divides the ventricle?

Birds Are Adapted for Different Ways of Life

Write the correct bird type from the list below in the space next to its characteristics.

birds of prey	long-legged waders	songbirds
ducks	parrots	woodpeckers
hummingbirds		

- _____ 13. short, thick, strong beak for seed cracking
- _____ 14. legs so small it cannot walk; tiny feet
- _____ 15. a strong, chisel-like beak
- _____ 16. strong toes, two facing forward and two facing backward, adapted for perching, climbing, and holding food
- _____ 17. powerful talons and a curved, pointed beak
- _____ 18. a long, flattened, rounded bill; three toes linked by webs
- _____ 19. long legs; toes spread out over large surface to support bird on soft surfaces