

Birds

Answer Key: Grades 7–8 Lesson Extensions

Notes:

- This answer key should be used as a guide for basic responses to the questions and instructions found in the grades 7–8 lesson extensions. The children should be encouraged to make their student journals tidy, beautiful, and exceptionally well done.
- Encourage the children to write their answers in their own words, with definitions being a possible exception.
- There are two types of answers provided in this answer key:

Sample answers: Most questions are open ended, so the children’s answers will not match the provided text exactly or include everything provided in the sample answer. However, some answers should match more closely (for example, vocabulary word definitions, copied charts, etc.).

Answers will vary: This is used when there will be great variation in the children’s answers, which may be due in part to a lesson having more information provided than another lesson. Refer to the text in the lesson to check these answers.

Lesson 1

2. Describe the different types of bird plumage and the purpose of each one.

Sample answer:

- natal plumage—on hatchlings; plain and subdued in color; provides insulation and camouflage
- juvenile plumage—as the bird grows; may have some color but is still relatively plain to provide camouflage
- mature plumage—adult patterning and coloration we are accustomed to seeing
- breeding plumage—vibrant and colorful patterns typically worn by males; attracts mate

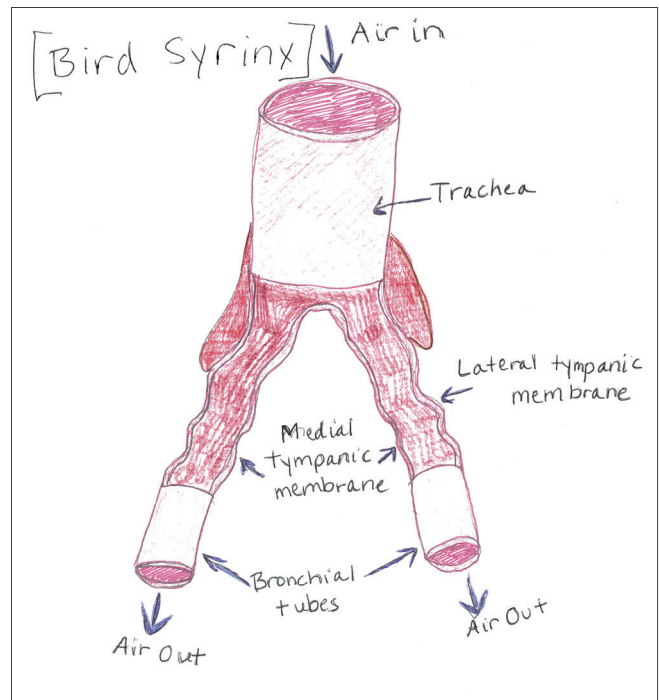
3. Explain how and why a bird’s plumage changes color.

Sample answer: Feathers are made of the same keratin substance as our hair and fingernails. Feathers are “dead,” meaning they cannot change or heal themselves. Birds undergo a molting process—a feather falls out and is replaced by a new one. This process can replace all feathers, replace a few damaged feathers, or replace one area of the plumage. A bird’s feathers may come in with different colors depending on the bird’s stage of life. Some birds’ feathers change with the seasons to help them blend in. Muted colors help protect the bird, while bold colors help to attract a mate.

Lesson 2

2. Draw a diagram of a syrinx, showing the entrance from the trachea and two tubes to the lungs.

Sample answer:



Birds



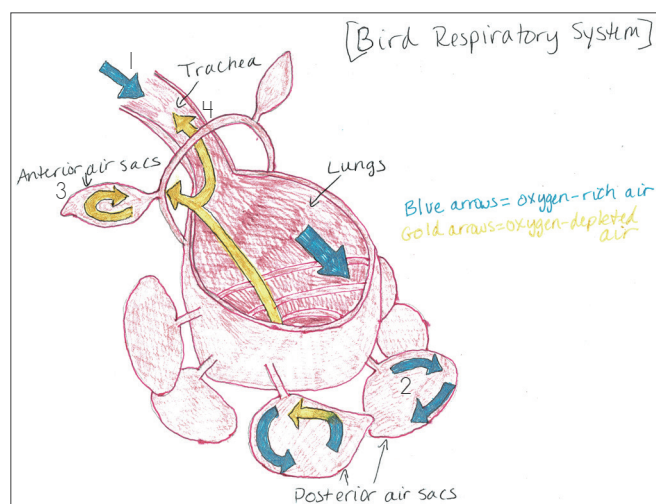
3. Go out to your yard or closest nature space and listen. Describe the sounds of the birds you hear. Try to focus on just one bird and describe any word-like sounds you can hear or other details you find important.

Answers will vary.

Lesson 3

2. Draw a simple diagram of a bird's trachea, lungs, and air sacs and label it with the steps of a breath of air.

Sample answer:



Lesson 4

2. Name and describe the function of the six types of feathers.

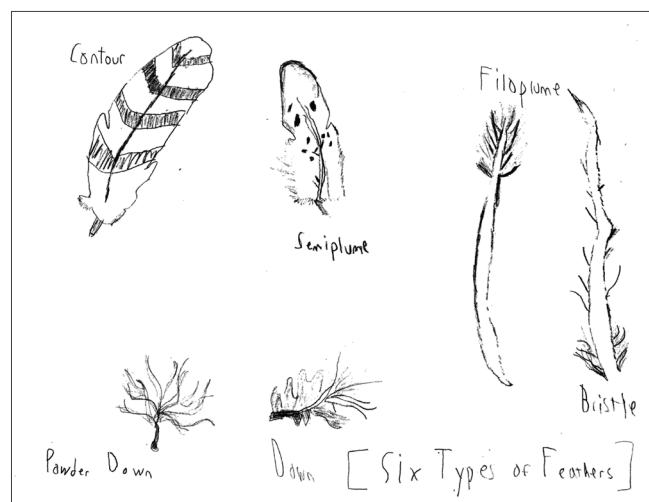
Sample answer:

- contour—give birds their streamlined shape; provide wind protection and a watertight layer; aid in propulsion, lift, steering, braking, and balance
- semiplume—aid in insulation
- down—aid in insulation by trapping warm air, especially in chicks; may be plucked and used in nests to insulate eggs
- powder down—aid in insulation; found only on some birds; grow continuously and do not molt; disintegrate into powder at the tips
- filoplume—most numerous near flight feathers; associated with nerves in the skin; help birds sense when other feathers are not correctly aligned so birds will preen and fix them, which in turn helps the birds fly or swim more aerodynamically

- bristle—found only on a select number of species; found around the mouth, eyes, or neck of the bird and act as dust filters or eyelashes

3. Optional: Draw an illustration of each of the six types of feathers.

Sample answer:



Lesson 5

2. Summarize the different ways that birds attract a mate.

Sample answers:

- show off their plumage
- draw attention to their body shape or special features
- sing songs ranging in complexity from simple to intricate
- perform dances alone, as a pair, or in a group
- offer to feed potential mate
- initiate preening of potential mate
- build a nest for potential family

3. Teach a family member or peer what you learned in this lesson.

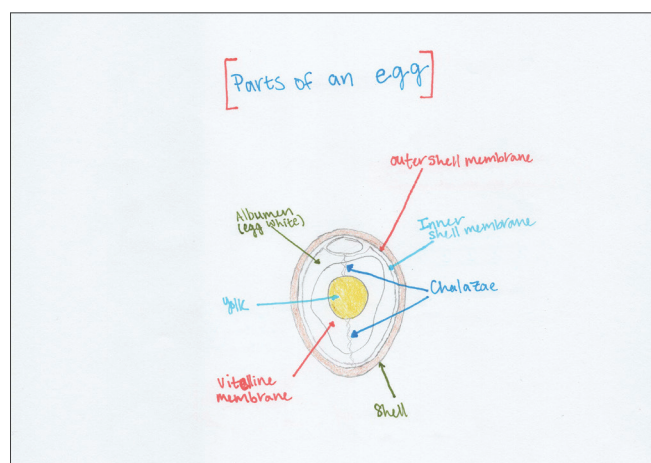
Answers will vary: The child should have taught a family member about the mating rituals of birds, using information presented in the lesson extension.

Lesson 6

2. Draw and label the parts of an egg. You may also wish to crack open an egg and see if you can find each of the labeled parts.



Sample answer:



Lesson 7

2. Write 3–5 interesting facts you learned about how a bird claims and defends its territory.

Sample answers:

- singing (to threaten predators, indicate its mood, communicate with mates, differentiate between rivals, organize mobbings)
- visual displays (puffing up of feathers, fanning out of tail, spreading its wings)
- as a last resort, aggression (running headfirst at a foe; using beak, claws, and weight to fight)

Lesson 8

2. Write a paragraph describing the importance of scavengers, especially vultures, to the ecosystem.

Sample answer: Vultures are important to the ecosystem because they eat dead animals and diseased wildlife, which slows the spread of disease. They also quickly return nutrients to the ecosystem, which helps new plants grow.

Lesson 9

2. Write a short paragraph about why so many bird species are found in wetlands.

Sample answer: Wetlands attract many bird species, including herons, egrets, and birds of prey. Herons do not have many natural predators, and they are able to live on the abundant fish present in the wetlands. Birds of prey eat the wide variety of fish, reptiles, and amphibians that can be found in and around the water. Migratory species, such

as Canada geese, use wetlands as resting points along their journey. Finally, the landscape of the wetlands provides many nesting sites for birds such as ducks, geese, and swans, as well as predatory birds.

3. *Optional: With a parent's permission, go online to research a wetland bird of your choice. Write at least two interesting facts about that bird.*

Answers will vary based on the bird chosen.

Lesson 10

2. Write a paragraph explaining why grooming and preening are important to the health of a bird.

Sample answer: Birds use grooming techniques for a few reasons. They take water baths to cool down because they are not able to sweat like other animals. If water isn't readily available, birds use dust instead. Dust baths help remove mites and regulate the birds' ability to produce the right amount of oil on their feathers. Birds also do something called preening, which is when they stretch out their wings and use their bills to release and distribute oil from the uropygial gland at the base of the rump onto the feathers. This keeps the feathers flexible, waterproof, and aerodynamic. It also removes parasites and lice that carry disease and ruin feathers.

Lesson 11

2. *Imagine you care for kiwi birds at the Kiwi Birdlife Park in Queenstown. Write a paragraph with 3–4 sentences about what you might observe the birds doing during the day.*

Answers will vary: The child's 3–4 sentences should include information about the care and behavior of kiwi birds as presented in the lesson extension.

Lesson 12

No answers required.

Lesson 13

2. *Explain the differences between a non-native species and an invasive species.*

Sample answer: Non-native species of birds are birds found in locations throughout the world where one could not naturally find them. Some non-native species have been imported by humans for pest control, and some have been brought to a location to be used as exotic pets. Not all non-native species of birds are invasive.



Invasive species of birds might bring diseases that are new to the native species. Invasive species can cause native species to leave the area because they are competing for nesting sites, which causes the native species not to be able to reproduce as easily. Invasive species of birds also damage crops and eat the local food sources, leaving little for the native species, which affects the ecosystem of the area.

3. Explain at least two reasons why invasive species need to be controlled.

Sample answer: Invasive species of birds need to be controlled because they can cause the native birds to leave the area, and they can affect the native birds' ability to eat, nest, and reproduce. Invasive species of birds can also carry diseases to birds and humans, cause crop damage, cause other animals in an ecosystem to die off, or even knock down power lines or cause plane crashes.

Lesson 14

2. Compare and contrast two woodland birds, listing one unique thing you have learned about each bird.

Answers will vary: The child's written information will vary based on the birds chosen but should reflect information presented in the lesson extension.

3. Optional: With a parent's permission, look up two of the birds mentioned on this page and find out more about their habitats and abilities.

No answer required.