## Assessment Answer Key Hummingbirds!

Note to teachers: The assessment should be used not as a pass-or-fail unit test but as an opportunity to diagnose students' language arts and science skills. We have designed it for students to have their copies of the "Hooray for Hummingbirds!" student magazine available for reference as they work on answering the questions. Please use the assessment diagnostically. With struggling readers, take the opportunity to review their answers individually. We hope that the answer key provides suggestions that will help you improve students' reading. The assessment also can be given aloud as part of a class discussion. Most of all, we hope the assessment—and the entire Audubon Adventures program will develop students' appreciation for and enjoyment of the environment we share.

**1.** Correct answer: c. The answer is found in the first paragraph of "Flower-Powered" on page 2 of the student magazine. The paragraph also explains what pollination is and why it is important. Options a, b, and d are actions mentioned in the student magazine, so a wrong answer may indicate that a student has read the magazine, recognizes a familiar word or phrase, but is guessing at the answer. Students who choose option b may also recall reading that hummingbirds eat insects. You might take the opportunity to review and discuss the meaning of each answer option, which will reinforce understanding of those concepts while making it clear why "carry pollen from one flower to another" is the only answer that refers to pollination. This question can serve as the starting point for a broader discussion of what pollination is and why it is important, and also an opportunity to identify other pollinators.

**2. Correct answer:** b. The answer is found in the second paragraph on the cover of the student magazine. The assessment question uses different words and phrasing from the magazine text, making this an opportunity to evaluate students' reading comprehension. A wrong answer is likely a guess, since there are no other references in the magazine to sounds hummingbirds make.

**3. Correct answers:** a, b, c. The answers are all found in the first sentence of "Flower-Powered" on page 2 of the student magazine. Since many birds eat seeds, students who choose the only wrong answer, d, may be applying prior knowledge incorrectly. This question provides a springboard for a discussion of the fact that different birds eat a variety of different foods, ranging from nectar, insects, worms, spiders, and seeds, to fruit, live prey, and carrion.

If you want to extend the discussion, this topic can lead to how birds' beaks are adapted for the food they eat.

**4. Correct answer:** d. The answer is found on page 2 under in the last paragraph under the heading "Zzzzzz..." "Torpor" is likely to be a new word for most students. Students who answer correctly either recall the word or have successfully skimmed the magazine to find it and its meaning. Since the question uses the same phrase—"sleeplike state"—as the text does to describe torpor, students who get the question wrong are more likely to be guessing than to have misunderstood the meaning. This question can lead to a discussion of different strategies animals use to survive the cold, including hibernating (which is similar to torpor), to retreating into burrows, growing a winter coat, and migrating.

**5. Correct answer:** a. The answer is found on page 2 in the second paragraph of "Flower-Powered." Migration is also discussed in "Follow Those Hummingbirds!" on page 3 of the student magazine and in "They [Heart] Hummingbirds" on page 4. Since migration is a key factor in understanding the life cycles of many birds as well as other animals, this is a good opportunity to address it in more depth with the class. An important concept is that migration is more than a strategy for avoiding extreme temperatures. Migratory animals are also seeking a reliable food supply and suitable habitat for raising young.

6. Answers will vary. On page 3 of the student magazine, the article "Follow Those Hummingbirds!" introduces the idea that, as a result of climate change, hummingbirds may not find the nectar they need as they migrate if climate change causes flowers to bloom earlier than normal. This is a complex concept that could require further exploration and explanation. In your discussion with students about this question, you might scaffold the interconnected ideas involved, starting with climate change itself. A simple definition is that it is the long-term change in weather patterns around the world. The next step is to connect climate with the life cycles of plants an animals—e.g. that flowers bloom in the spring, deciduous trees lose their leaves in the fall, and so on. You can then connect these cycles with the needs of animals such as hummingbirds, whose migratory flights are timed to coincide with the availability of plant nectar from blooming plants along their migratory routes. With sufficient scaffolding, students should be able to see how hummingbirds may not be able to find nectar to fuel their migratory flights if flowers bloom too early.