

## **Focus Question:**

How do symbiotic relationships work, and why are they important?

### **Book Summary**

**Text Type:** Nonfiction/Informational

The natural world is full of complex relationships among different kinds of organisms. Symbiotic Wildlife is a nonfiction informational book that looks at how different species interact in ways that benefit each other. The book can also be used to teach students how to compare and contrast information and the proper use of commas in a series.

The book and lesson are also available for levels Z and Z2.



### **Lesson Essentials**

#### **Instructional Focus**

- ☐ Connect to prior knowledge to understand text
- ☐ Identify details to compare and contrast information
- Describe information provided by photographs
- ☐ Recognize and use commas in a series
- ☐ Identify root words

#### **Materials**

- ☐ Book: Symbiotic Wildlife (copy for each student)
- ☐ Connect to prior knowledge, compare and contrast, commas in a series, root words worksheets
- Discussion cards
- ☐ Book quiz
- □ Retelling rubric

#### Vocabulary

Boldface vocabulary words also appear in a pre-made lesson for this title on VocabularyA–Z.com.

Words to Know

Story critical: fertilized (v.), interdependent (adj.), parasites (n.), refuge (n.), species (n.), symbiotic (adj.)
Enrichment: assumes (v.), intimidating (adj.), mucus (n.), nocturnal (adj.), sustainability (n.), venomous (adj.)

• Academic vocabulary: benefit (n.), complex (adj.), difference (n.), diverse (adj.), partner (n.), provide (v.)

# **Guiding the Reading**

# **Before Reading**

## **Build Background**

- Place on the board a photograph of a crocodile and a photograph of an Egyptian plover bird. Ask students to work with a partner to describe both animals. Have students discuss how these animals might interact with each other.
- Discuss with students what makes a *symbiotic* relationship. Describe the interaction between the crocodile (teeth cleaning) and plover bird (eats leftover food). Have students discuss with a partner how both animals benefit from this relationship. Invite volunteers to share their thinking with the rest of the class.

#### Introduce the Book

- Give students their copy of *Symbiotic Wildlife*. Guide them to the front and back covers and read the title. Have students discuss what they see on the covers. Encourage them to offer ideas as to what type of book it is (genre, text type, and so on) and what it might be about.
- Show students the title page. Discuss the information on the page (title of book, author's name).
- Preview the table of contents on page 3. Remind students that the table of contents provides an overview of the book. Ask students what they expect to read about in the book, on the basis of what they see in the table of contents. (Accept all answers that students can justify.)

# Introduce the Reading Strategy:

#### Connect to prior knowledge

• Explain to students that readers usually have some prior knowledge of the topic they are going to read about. Explain that engaged readers make connections with what they know while reading and that this helps them better understand and remember the information in the book. Have students use the picture on page 8 to make a connection to their prior knowledge. Ask students to discuss these connections in a group. Invite volunteers to share their thoughts with the



# **Symbiotic Wildlife**



# **Guiding the Reading** (cont.)

rest of the class, and discuss how their connections may help them better understand and remember the book.

• Independent practice: Introduce, explain, and have students complete the connect-to-prior-knowledge worksheet. Have students read the sentences and check the box labeled *Agree* or *Disagree* to complete the columns on the left. Explain that they may use single words or short phrases to answer the *How I Know* column, drawing from prior knowledge.

## **Introduce the Comprehension Skill:**

### **Compare and contrast**

- Explain to students that one way to organize information in a book is to explain how topics are alike and different, which is called *comparing* and contrasting.
- Create a Venn diagram on the board and write the
  words Animals in Nature above the diagram. Label
  the left side crocodile and the right side Egyptian
  plover bird. Invite students to explain how crocodiles
  and plover birds are alike and different (alike: live
  in nature, hunt for food, protect themselves from
  predators, and so on; different: crocodiles are big
  and dangerous, plover birds fly, and so on). Model
  how to write each response on the Venn diagram.

#### Vocabulary

Have students turn to the "Words to Know" box on the copyright page. Discuss each word with students. Then, have students turn to the glossary on page 24. Explain that the glossary provides definitions for the vocabulary words in the book. Point out the use of each content word and academic vocabulary word in the book, and then use each word in a different model sentence. Have students work in groups to create posters for these words. Have them include on each poster the word and its part of speech, the definition, the word in an example sentence, and a picture illustrating the meaning of the word.

#### **Set the Purpose**

- Have students read to find out more about symbiotic relationships. Write the Focus Question on the board. Invite students to look for evidence in the book to support their answer to the question.
- Have students make a small question mark in their book beside any word they do not understand or cannot pronounce. These can be addressed in a future discussion.

# **During Reading**

### **Text-Dependent Questions**

As students read the book, monitor their understanding with the following questions. Encourage students to support their answers by citing evidence from the book.

- Why is living in the world challenging? (level 1) page 4
- Where do symbiotic relationships exist? (level 3) page 5
- How would you describe the sequence of a clownfish building up immunity to an anemone's venom? (level 3) page 7
- How are wrasses and finches alike? How are they different? (level 2) pages 10 and 11
- What would happen to snapping shrimp if goby fish became extinct? (level 3) page 14
- What facts would you select to support the idea that grizzly bears and red squirrels help pine trees? (level 3) page 15
- How are trees related to flowers? (level 3) pages 18–21
- How would you summarize the benefits of symbiotic relationships? (level 2) multiple pages

### **Text Features: Photographs**

Explain that photographs help readers know exactly what something looks like. Have students work with a partner to read the first paragraph on page 10. Have students review the photograph on page 10. Ask students: How does the photograph support details in the text? Did the photograph match the image in your mind? Why are photographs important text features? Have students review other photographs in the book and discuss in groups the details they provide. Invite volunteers to share their thoughts with the rest of the class.

#### Skill Review

- Ask students to complete the middle column of the connect-to-prior-knowledge worksheet and write evidence for the examples that have been discussed. Model for students how you make connections to prior knowledge. Invite volunteers to share their evidence with the class.
- Have students work in groups to periodically compare and contrast information in the book and discuss these comparisons.
- Model comparing and contrasting.

  Think-aloud: I read on page 20 that the Brazil nut tree and agouti have a symbiotic relationship. They each benefit in a cycle to find food and reproduce. I read on page 21 that mistletoe plants and phainopepla have a similar relationship that takes place in the desert, not in a tropical rainforest.
- Model how to complete the compare-and-contrast worksheet. Have students identify details from the book and circle them. Then, have students compare and contrast the details with a partner.



# **Symbiotic Wildlife**



# **Guiding the Reading** (cont.)

# After Reading

Ask students what words, if any, they marked in their book. Use this opportunity to model how they can read these words using decoding strategies and context clues.

#### **Skill Review**

# **Graphic Organizer: Compare and contrast**

Review the compare-and-contrast worksheet that students completed. Have students share their work in groups. Invite volunteers to share with the rest of the class the comparisons they made. Discuss with students the justification for these comparisons.

#### **Comprehension Extension**

Discussion cards covering comprehension skills and strategies not explicitly taught with the book are provided for extension activities.

### **Response to Focus Question**

Have students cite specific evidence from the book to answer the Focus Question. (Answers will vary. Reasons should include characteristics that show how symbiotic relationships work, and why they are important. Samples: Symbiotic relationships occur when two different species work together at separate tasks to benefit each other. These relationships are important because they provide the world with diversity. These animals have a better chance of surviving, reproducing, and living longer, healthier lives.)

### **Comprehension Checks**

• Book quiz • Retelling rubric

### **Book Extension Activities**

# **Build Skills**

#### **Grammar and Mechanics: Commas in a series**

- Explain to students that in a list of three or more items, a comma must be placed between the items. Listed items can be nouns, verbs, adjectives, or entire phrases or clauses. Remind students that this is only one of the many uses for a comma.
- Have students turn to page 9 and read the following sentence aloud: *Impalas have superb hearing, sight, and sense of smell*. Explain that when the sentence is read aloud, the commas create pauses between the words or phrases. Point out the list of senses, the commas used to separate each item, and the use of the word *and* before listing the last phrase.
- Have students turn to page 23 and locate the following sentence: The end result is that fish, birds, humans, and many other organisms on our planet have a better chance of surviving, reproducing, and living longer, healthier lives. Point out the phrases

- separated by commas. Talk about the location of the commas within the list. Point out that the last phrases (many other organisms; living longer, healthier lives) are joined to the list by the word and following a comma.
- Check for understanding: Have students turn to page 15. Ask them to find a list of living things in the Rocky Mountains (grizzly bears, red squirrels, and white bark pine trees). Ask them to circle the commas and notice that the last item is added to the list after the word and. Point out that other commas are used on the page, but not to separate a list of words.
- Independent practice: Introduce, explain, and have students complete the commas-in-a-series worksheet. If time allows, discuss their answers.

#### Word Work: Root words

- Write the word *picky* on the board. Ask students what the word would be if the -y ending was removed, and write *pick* next to *picky*. Explain that *pick* is the verb. When the -y suffix is added to the word *pick*, an adjective is created. Discuss that *root words* may have a prefix, a suffix, or both added to them.
- Review or explain that a suffix is a letter or group of letters added to the end of a word to form another word, often altering or changing its meaning. Some examples of suffixes are -ed, -y, -s, -es, and -ing.
- Review or explain that a prefix is a letter or group of letters that is attached to the beginning of a word to modify its meaning. Some examples of prefixes are dis-, mis-, and un-.
- Have students turn to page 11 in the text and locate the word unable. Ask what this word means (not able). Have students explain how the meaning of the sentence would be changed if the prefix unwas not part of the root word.
- Check for understanding: Give students a half-sheet of paper and write the following words on the board: engaged, bloat, and treated. Have students identify the meaning of each root word. Then have them write their individual answers, adding the following suffixes or prefixes accordingly: dis-, -ed, and mis-(disengaged, bloated, mistreated). Have students identify how the meaning of each word has changed.
- Independent practice: Introduce, explain, and have students complete the root words worksheet. If time allows, discuss their answers.

#### **Connections**

 See the back of the book for cross-curricular extension ideas.