

About the Book

Text Type: Nonfiction/Informational Page Count: 20 Word Count: 1,329

Book Summary

Join the author as she interviews Jude McNally, the director of the Arizona Poison and Drug Information Center in Tucson, Arizona. Mr. McNally is an expert on desert animals that are venomous and can be harmful to humans. The reader will learn the difference between life-threatening and non-life-threatening bites and stings, what symptoms to look for, the specific animals that are most dangerous, and advice for staying safe around these creatures.

About the Lesson

Targeted Reading Strategy

- Summarize

Objectives

- Summarize to understand text
- Compare and contrast information
- Identify and understand the use of adjectives
- Identify and understand the use of synonyms

Materials

Green text indicates resources available on the website

- Book—*Bites and Stings* (copy for each student)
- Chalkboard or dry erase board
- Thesaurus
- Map of Arizona and Sonoran Desert
- Summarize, compare and contrast, adjectives, synonyms worksheets
- Discussion cards



Indicates an opportunity for students to mark in the book. (All activities may be demonstrated by projecting the book on an interactive whiteboard or completed with paper and pencil if the books are reused.)

Vocabulary

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

Content words:

Story critical: *assessing* (v.), *diagnosis* (n.), *inflammation* (n.), *puncture* (n.), *symptoms* (n.), *venom* (n.)

Enrichment: *antivenom* (n.), *blood pressure* (n.), *clotting* (v.), *culprit* (n.), *discoloration* (n.), *disorders* (n.), *docile* (adj.), *embedded* (v.), *harassing* (v.), *local* (adj.), *site* (n.), *syndrome* (n.)

Before Reading

Build Background

- Ask students whether they have ever been stung by a bee or bitten by an ant. Have them share their experiences and symptoms.
- Show students a map of Arizona and the Sonoran Desert. Explain that the Sonoran Desert is a very biodiverse habitat that has many animals, including poisonous ones.

Preview the Book

Introduce the Book

- Give students their copy of the book. 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, fiction or nonfiction, and so on) and what it might be about.
- Show students the title page. Discuss the information on the page (title of book, name of person interviewed, author's name).
- Have students preview the book, looking at photographs, captions, the map, and the question/response structure of the text. Explain to students that the question/response structure is the traditional way an interview is displayed in writing.
- Ask students to turn to the table of contents. Remind them that the table of contents provides an overview of what the book is about. Ask students what they expect to read about based on what they see in the table of contents. (Accept all answers that students can justify.)

Introduce the Reading Strategy: **Summarize**

- Explain to students that one way to understand and remember information in a book is to write a summary, or a brief overview, of the most important information in a section. Point out that a summary often answers the questions *who*, *what*, *when*, *where*, and *why*.
- Read the Introduction aloud to students and model summarizing.
Think-aloud: To summarize, I need to decide which information is important from what I've read. Then, in my mind, I organize the information into a few words or sentences. For example, the text on page 4 describes how a two-year-old girl has been brought to the emergency room with a mysterious red mark on her leg, and doctors must figure out what caused her injury. The page also describes how Jude McNally, the managing director of the Poison and Drug Information Center in Tucson, Arizona, studies things that are poisonous to humans. When I look at this important information, a summary of page 4 might be: Jude McNally is an expert on venomous creatures in the desert. He studies venomous animals to help doctors treat people who come in with bites and stings.
- Write the summary on the board. Discuss how you used the information in the book, along with your own words, to create the summary.
- As students read, encourage them to use other reading strategies in addition to the targeted strategy presented in this section.


Introduce the Comprehension Skill: **Compare and contrast**

- Explain that one way to organize information in a book is to explain how topics are alike and different. Create a Venn diagram on the board. Label the left-hand side *Pencils* and the right-hand side *Markers*.
- Explain that information telling how pencils and markers are similar is written where the circles overlap. Information that is only true of pencils is written in the left side of the left circle. Information that is only true of markers is written in the right side of the right circle.
- Show students a pencil and a marker. Model comparing and contrasting the two objects.
Think-aloud: Pencils are similar to, and different from, markers. Pencils and markers are both used for writing. However, a pencil produces gray markings and a marker produces colored markings.
- Model how to write each response on the Venn diagram. Invite students to share other ways pencils and markers are alike and different (alike: approximately the same length, used in art, and so on; different: you can erase mistakes with the pencil but not with the marker, and so on). Write their responses on the Venn diagram.
- Have students turn to the table of contents on page 3. Ask them what two things they might be asked to compare and contrast in this book (life-threatening and non-life-threatening bites and stings).

Introduce the Vocabulary


- Write the following words from the content vocabulary on the board: *assessing*, *puncture*, *symptoms*, *venom*.
- Give groups of students a large piece of blank paper. Have them divide the paper into four sections. Have them write or draw what they know about each word. Have groups discuss and create a definition for each word using prior knowledge.
- Review or explain that the glossary and dictionary contain a list of vocabulary words and their definitions. Model how students can use the glossary or a dictionary to find a word's meaning. Have students locate the glossary at the back of the book. Invite a volunteer to read the definition for *assessing* in the glossary. Have students compare the definition with their prior knowledge of the word. Then have them follow along on page 10 as you read the sentence in which the word *assessing* is found to confirm the meaning of the word. Repeat the exercise with the remaining vocabulary words.
- Point out to students the difference between the meanings of *venomous* and *poisonous*. (*Venomous means that an animal injects venom into something else. Poisonous refers to things that cause a reaction when ingested or touched, such as poison ivy or poison arrow frogs.*)




Set the Purpose

-  Have students read the book to find out more about venomous creatures, stopping after every few pages to summarize information to identify similarities and differences between topics. Encourage students to underline important information in each section or write it on a separate piece of paper.

During Reading

Student Reading


- **Guide the reading:** Have students read to the end of page 8. Encourage those who finish before others to reread the text. When students are ready, discuss important information they identified.
- Model summarizing information from page 6.
Think-aloud: *I wanted to stop after this page to summarize the information I've read about black widow spiders. Jude tells that the black widow spider can inject its venom into people. This venom causes burning, stinging, and pain near the bite. It also causes cramping. If a child gets bitten by this spider, his or her muscles cramp, and breathing can become difficult. Based on this information, a summary might be: Black widows are venomous spiders. They inject venom when they bite. The bite causes burning and stinging at the site, even though there is not much swelling or visible puncture marks. Muscle cramping and puffy eyes are common symptoms, especially in children.*
- Write the summary on the board. Discuss how you used the information in the book, along with your own words, to create a summary.
 Have students work with a partner to reread pages 7 and 8, and underline important information in their book about scorpions. Remind them to answer the questions *who*, *what*, *when*, *where*, and *why*. When they have finished, create a summary as a class. (Scorpions are venomous. The bark scorpion is especially dangerous. Symptoms of this type of scorpion sting are restlessness, muscle twitching, roving eye syndrome, and movement disorders. Other scorpion stings cause swelling.)
- Review with students the underlined information they used to summarize the facts on black widow spiders and scorpions. Discuss the similarities and differences between these two kinds of animals (similarities: venomous, cause muscle problems, small children are affected more; differences: black widow spiders bite and scorpions sting, black widow bites don't produce much swelling but scorpion stings can).

-  **Check for understanding:** Have students read to the end of page 12 about flying, stinging insects and rattlesnakes. Remind them to underline information that answers the questions *who*, *what*, *when*, *where*, and *why* while reading. Then have students work with a partner to write a brief summary of one of the animals on a separate piece of paper. Have them share and discuss their summaries.
- Have students work with a partner to compare and contrast flying, stinging insects and rattlesnakes. Have them write the information on a Venn diagram on a separate piece of paper. Invite students to share their work. Discuss their responses.
-  Have students read the remainder of the book. Have them underline information in each section that answers the questions *who*, *what*, *when*, *where*, and *why*.
-  Have students make a question mark in their book beside any word they do not understand or cannot pronounce. Encourage them to use the strategies they have learned to read each word and figure out its meaning.

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.

Reflect on the Reading Strategy

-  Divide students into small groups. Assign each group one of the remaining animals or animal groups from the book (Gila monster, other scorpions, other spiders, other snakes). Have each group discuss and underline important information about the animal or animal group. When students have finished, share and discuss the information they underlined.
- **Think-aloud:** *I know that summarizing keeps me actively involved in what I'm reading and helps me remember what I've read. I know that I will remember more about the bites and stings of these desert creatures because I summarized the information in my own words as I read the book.*
- **Independent practice:** Introduce, explain, and have students complete the [summarize worksheet](#) using the information they underlined in their small group. If time allows, invite students to read their completed summaries aloud.

Reflect on the Comprehension Skill

- **Discussion:** Review with students how the text was organized (Life-threatening: descriptions of four animal bites or stings; Non-life-threatening: descriptions of four animal bites or stings). Review and discuss the similarities and differences between life-threatening and non-life-threatening bites and stings.
- **Independent practice:** Introduce, explain, and have students complete the [compare-and-contrast worksheet](#) by comparing two animals or animal groups not previously compared. If time allows, discuss their answers.
- **Enduring understanding:** *In this book, you learned about the bites and stings of different animals and animal groups. Now that you have read about the life-threatening symptoms to look for, what will you do if you or a friend gets a bite or a sting?*

Build Skills

Grammar and Mechanics: Adjectives


- Write the following sentence on the board: *The woman drove a red car.* Have a volunteer come to the board and circle the noun in the sentence (*car*).
- Ask a volunteer to identify a word that describes the car (*red*). Review or explain that *adjectives* are words that describe nouns or pronouns and tell *which one*, *how many*, or *what kind*.

Lesson Plan *(continued)*

Bites and Stings

- Write the following sentence on the board: *A cardinal is a bright red bird.* Underline the word *bird*. Have a volunteer come to the board and circle the words that describe the bird (*bright, red*). Point out that more than one adjective can be used to describe a noun or pronoun. Ask students to share why an author might use more than one adjective to describe something (to more accurately describe the noun or an adjective).
- **Check for understanding:** Write the following sentence on the board: *They're looking for symptoms caused by four possible culprits.* Underline the word *culprits*. Have students write the two adjectives that describe the culprits on a separate piece of paper (*four, possible*).
- **Independent practice:** Introduce, explain, and have students complete the [adjectives worksheet](#). If time allows, discuss their answers.

Word Work: **Synonyms**

- Write the word *explain* on the board. Ask students to suggest a word that means almost the same thing (*clarify, describe*). Review or explain that a word that means the same or almost the same as another word is called a *synonym*.
- Ask students to explain why the use of synonyms is important in writing (they help describe something in text, they make the writing more interesting and varied, and so on). Have students provide examples of sentences that support their thinking. (For example, in the sentence *We have over 30 different kinds of scorpions in Arizona, and only the bark scorpion can be life-threatening*, the word *life-threatening* allows readers to get a more accurate and vivid idea of how dangerous these scorpions are.)
- Have students turn to page 9 and locate the following sentence: *With bees, wasps, and ants, we're concerned about allergic reactions.* Write the word *concerned* on the board. Ask students to use the context of the sentence to suggest a word that means the same or almost the same as *concerned* (*anxious, worried*). Write these words on the board.
- Show students a thesaurus. Use the word *concerned* to demonstrate how to use a thesaurus. Write synonyms for *concerned* on the board and compare the meanings of these words with the words on the board. Point out that a thesaurus identifies synonyms for words.
- Give pairs of students a thesaurus. Ask them to locate synonyms for the word *dangerous*.
 **Check for understanding:** Assign student pairs a page from the book. Have them underline at least three words on the page and then use the thesaurus to locate synonyms for those words. Have them write the synonyms in the margin, close to the word. If time allows, share words and synonyms.
- **Independent practice:** Introduce, explain, and have students complete the [synonyms worksheet](#). If time allows, discuss their responses.

Build Fluency

Independent Reading

- Invite students to read their book independently. Additionally, partners can take turns reading parts of the book to each other.

Home Connection

- Give students their book to take home to read with parents, caregivers, siblings, or friends. Have them discuss with someone at home what they learned about how to avoid life-threatening bites and stings.

Extend the Reading

Informational Writing Connection

Ask student pairs to research another venomous animal or insect. Provide books, encyclopedias, or access to the school library and Internet to find out more on their specific animal. Have them include the same information they encountered in the text: where it can be found, what the symptoms are when a human has been bitten or stung, and how to best interact with this animal. Ask pairs to create a small poster with the information they found, including colorful visuals to accompany their written research.

Visit [Writing A–Z](#) for a lesson and leveled materials on informational writing.

Math Connection

Have students turn to page 12 and read the “Math Minute” sidebar. Have student pairs work together to solve the problem by drawing pictures and showing their calculations on a separate piece of paper. Then ask student pairs to write their own math story problems using information from the text. If time allows, have students exchange their problems with other pairs to solve.

Skill Review

[Discussion cards](#) covering comprehension skills and strategies not explicitly taught with the book are provided as an extension activity. The following is a list of some ways these cards can be used with students:

- Use as discussion starters for literature circles.
- Have students choose one or more cards and write a response, either as an essay or as a journal entry.
- Distribute before reading the book and have students use one of the questions as a purpose for reading.
- Conduct a class discussion as a review before the book quiz.

Assessment

Monitor Students to Determine if They Can:

- consistently use the strategy of summarizing to better comprehend the text during discussion and on a worksheet
- accurately compare and contrast nonfiction details within the text during discussion and on a worksheet
- accurately use adjectives to describe words during discussion and on a worksheet
- correctly identify and use synonyms during discussion and on a worksheet

Comprehension Checks

- [Book Quiz](#)
- [Retelling Rubric](#)