

# “Which Animal Is the Deadliest?” and “The Extraordinary Powers of the Tiny Mosquito”

An article and infographic present two sides of  
mosquitoes

## About the Story

**Lexile® Measure** 1000L

For qualitative complexity factors, go to Scope Online.

**Learning Objective:** to synthesize key ideas from a nonfiction article and an infographic

**Featured Skill:** synthesis

**Additional skills covered in this lesson plan:** key ideas and details, cause and effect, problem and solution, word choice, tone, author’s purpose

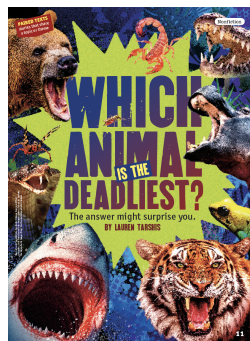
### Essential Questions:

- What is our relationship with other living things?
- How can we protect our health?
- How do readers know what an author’s purpose is?

### Standards:

The article and its suite of support materials support these Common Core anchor standards: R.1, R.2, R.3, R.4, R.5, R.6, R.7, R.9, W.2, SL.1, L.4, L.5, L.6

For more standards information—including TEKS—go to Scope Online.



## Your Teaching Package

Find your full suite of support materials at [scope.scholastic.com](https://scope.scholastic.com).

### Audio:

- Article and infographic read-aloud
- Text-to-speech
- Vocabulary

### Video:

- Scope Toolkit: “What’s the Tone?”

### Differentiated Article:

- Lower-Lexile version

### Connected readings from the Scope archives:

- The Poison Sky
- “Rats”
- “The Fish That’s Eating the World”
- “Vampires of the Deep”

### Activities to print, project, or share digitally:

- Do Now: Solve a Riddle
- Vocabulary: Definitions and Practice
- Close Reading and Critical Thinking Questions
- Featured Skill: Synthesis
- Choice Board
- Core Skills Workout: Text Evidence\*
- Lesson Plan Slide Deck
- Quiz\*

\*Available on two levels

## Step-by-Step Lesson Plan

### 1. Prepare to Read (20 minutes)

#### Do Now: Solve a Riddle (5 minutes)

- Display the following riddle for your students to solve as they enter the room:

*My entire life cycle lasts 8-10 days.*

*I usually travel only 100-200 feet at a time.*

*My max speed is 1.5 miles per hour.*

*I am the deadliest creature on Earth. Some experts estimate that I've killed half of all people who've ever lived.*

*I am important in the food chain: I provide food for bats, fish, birds, and frogs.*

*I am a pollinator. That is, I move pollen, which helps plants produce fruits and seeds.*

*Researchers think my spit could help cure human diseases.*

*What am I?*

- The answer is the mosquito. Direct students' attention to page 11 or the top of the digital story page and discuss: Why do you think the article's opening image features a tiger, a cobra, a shark, and other threatening animals? Are you surprised that the deadliest animal is the mosquito? How might this tiny insect be deadly?

#### Preview Vocabulary (10 minutes)

- Project the Google Slides version of **Vocabulary Definitions and Practice** on your whiteboard. Review the definitions and complete the activity as a class. Highlighted words: *adapt, nuisance, potent, prone, rural*. Audio pronunciations of the words and a read-aloud of the definitions are embedded on the slides. Optionally, print the PDF version or share the slideshow link directly to your LMS and have students preview the words and complete the activity independently before class.

## 2. Read and Discuss (45 minutes)

### “Which Animal Is the Deadliest?”

- Invite a volunteer to read the As You Read box on page 12 or at the top of the digital story page.
- Read the article once as a class. (*Differentiation: Share the lower-Lexile version of the article.*) Optionally, have students listen to the **article read-aloud** while they follow along. The read-aloud is located in the Resources tab in Teacher View and at the top of the story page in Student View.
- Divide students into groups to read the article again and respond to the following **Close-Reading and Critical-Thinking Questions**, also located in the Resources tab.

### Close-Reading Questions

(20 minutes)

*The following questions can be shared in printable or interactive form.*

1. **How does author Lauren Tarshis develop the idea that mosquitoes have been a problem for humans for thousands of years?** (key ideas and details) *In the introduction, Tarshis provides a statistic about mosquito-borne illnesses that illustrates how long they have plagued humans: Some experts estimate they’ve killed nearly half of all people who have ever lived. In the section “An Ancient Problem,” she provides examples of humans from various times and places who dealt with the problem of mosquitoes: Egyptian pharaohs, Chinese empresses, Mayan farmers, and George Washington’s troops. In the text feature “Malaria Through Time,” she provides details about the traces of malaria found in King Tut’s 3,500-year-old mummy and the roots of an effective medicine used to treat malaria today—the wormwood plant used by Chinese healers to treat the disease 1,600 years ago.*
2. **Why are mosquitoes a problem for humans?** (problem and solution) *Mosquitoes are a problem for humans because they transmit deadly illnesses such as dengue fever, West Nile virus, and malaria. About 230 million people are infected with malaria each year. In 2021, malaria killed more than 600,000 people across Africa, Asia, and Central and South America. People in rural parts of developing countries with little access to medical care are especially at risk.*
3. **In your own words, how is malaria transmitted?** (cause and effect) *When a female mosquito bites a person infected with malaria, the mosquito slurps up blood that contains malaria*

parasites. A few days later, when the mosquito has its next blood meal, these parasites get injected into the new person being bitten.

4. **What solutions to malaria have been explored? Have any worked?** (problem and solution) *Some solutions that have been explored are nets coated with mosquito-killing chemicals to protect people while they sleep, the genetic alteration of male mosquitoes so that female offspring don't survive, a medicine called artemisinin, a vaccine called Mosquirix, the spraying of an insecticide called DDT, and the killing of mosquito larvae with essential oils and yeast. Many of these solutions have led to a reduction in malaria cases, but they have not been effective enough or have been otherwise problematic. For example, over time mosquitoes adapt to the chemicals on the nets, and the vaccine reduces malaria cases by only 40 percent. DDT successfully killed mosquitoes in the U.S., but it turned out to be extremely harmful to humans and the environment, and it is now banned in many nations. As Tarshis writes, "the search for new weapons in the war on malaria continues."*

## “The Extraordinary Powers of the Tiny Mosquito”

- Give students a few minutes to study the infographic.
- As a class, discuss the following **Close-Reading and Critical-Thinking Questions**, which apply to the article and the infographic.

### Close-Reading Questions

(5 minutes)

*The following questions can be shared in printable or interactive form.*

1. **Consider the words each author uses to describe or refer to mosquitoes. Compare the words they use and how the words create each author's tone.** (word choice, tone) *Tarshis uses the adjectives "deadliest," "dangerous," and "fearsome" to describe mosquitoes. She refers to them as "a nuisance" and "a disease-spreading menace." She uses verbs like "combat," "tormented," and "battling" when describing humans' relationship with mosquitoes. She is full of concern for human health and is mostly anti-mosquito. Adele Braun, on the other hand, calls mosquitoes "Magic Spitters," "Super Sniffers," and "Plant Growers." She describes their senses and abilities as "extraordinary." Braun sounds as though she admires and is impressed by mosquitoes.*
2. **Compare the details Tarshis and Braun include related to the topic of disease. How do these details affect your understanding of mosquitoes?** (author's purpose) *Tarshis's article describes the problem of serious mosquito-borne illnesses. Braun's infographic presents a flip side: She explains that mosquitoes' saliva contains chemicals that stop blood from clotting and may help treat human diseases caused by blood clots. Taken together, these details show that while mosquitoes spread dangerous illnesses to people, they may also have the ability to help heal people.*

*\*For a deeper dive into tone, show the **Scope Toolkit** “What’s the Tone?” video. Pass out our **Tone Words reference page**, a bank of words to help students identify tone in any text.*

### Critical-Thinking Question

(5 minutes)

*The following question can be shared in printable or interactive form.*

1. How would you characterize mosquitoes: fearsome, extraordinary, or both? In what ways, if any, do you think differently about mosquitoes after reading these articles?

*Answers will vary.*

### 3. Write About It: Synthesis (45 minutes)

- Have students complete the **Featured Skill Activity: Synthesis**. This activity prepares them to respond to the writing prompt on page 15 in the printed magazine and at the bottom of the digital story page:

*You just read two texts about mosquitoes. What is each author’s purpose? How does reading both texts give you a more complete understanding of mosquitoes than reading just one of the articles would? Answer both questions in a short essay. Use text evidence.*

- Alternatively, have students choose a task from the **Choice Board**, a menu of culminating tasks. (Our Choice Board options include the writing prompt from the magazine, differentiated versions of the writing prompt, and additional creative ways for students to demonstrate their understanding of a story or article.)

### Connected readings from the Scope archives about our complex relationship with the natural world:

- Drama: [The Poison Sky](#)
- Paired Texts: [“Rats: Ewww!”](#) and [“Rats: Awww!”](#)
- Paired Texts: [“The Fish That’s Eating the World”](#) and [“Invasion of the Giant Goldfish”](#)
- Paired Texts: [“Vampires of the Deep”](#) and [“Attack of the Zebra Mussels”](#)