

Ask®

Wolf to Woof

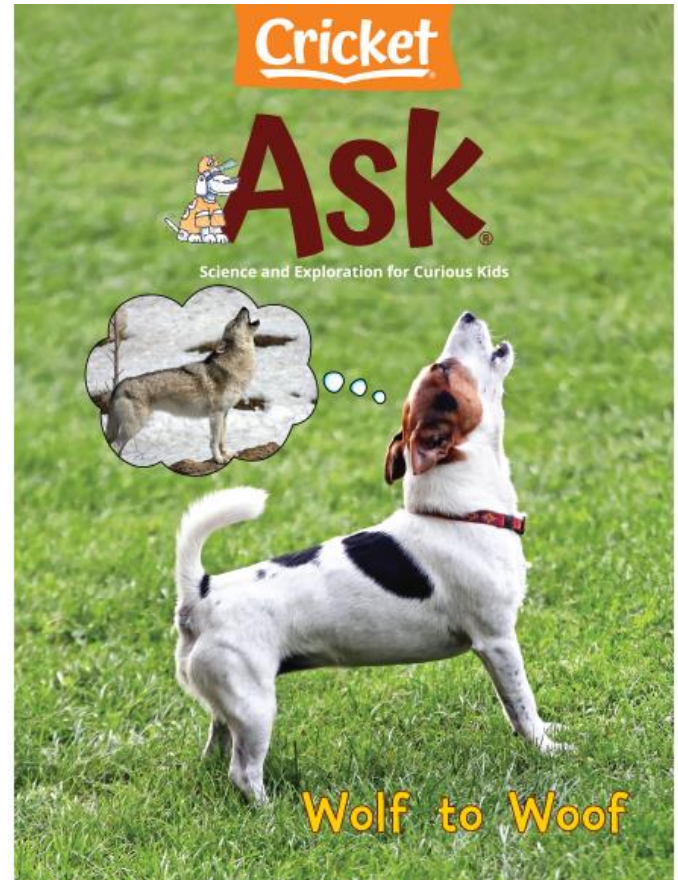
Recent genetic studies tell us that all dogs trace back to an earlier wolf species. This issue of ASK magazine explores the process of evolution, in addition to celebrating the accomplishments of domesticated dogs in society. Bright photographs accompany these high-interest articles.

CONVERSATION QUESTION

How are dogs and wolves related?

TEACHING OBJECTIVES

- Students will learn how the domesticated dog is a descendant of the wild wolf.
- Students will learn about dogs that played a role in history.
- Students will learn how wolves are an integral part of Yellowstone National Park's ecosystem.
- Students will collect evidence to support a claim.
- Students will construct explanations.
- Students will analyze cause-and-effect relationships.
- Students will contribute a page to a class book about working dogs.
- Students will plot the relay route of sled dogs in the 1925 Serum Run in Alaska.
- Students will create a timeline chronicling the wolf's existence in Yellowstone National Park.



In addition to supplemental materials focused on core STEM skills, this flexible teaching tool offers vocabulary-building activities, questions for discussion, and cross-curricular activities.

SELECTIONS

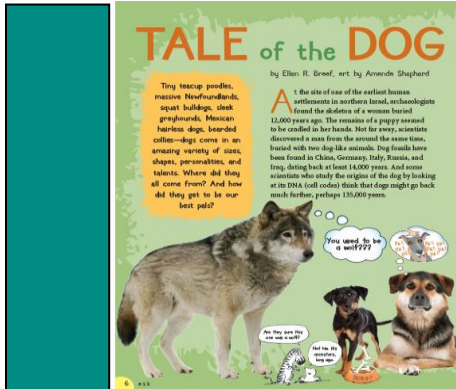
- **Tale of the Dog**
Expository Nonfiction
- **Good Dog! Bad Dog!**
Expository Nonfiction
- **The Return of the Wolves**
Expository Nonfiction

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Tale of the Dog

pp. 6–13, Expository Nonfiction

This article explores how man's cuddly best friend evolved from the wild wolf. Readers will discover how 14,000-year-old fossils combined with modern technology have helped scientists reach plausible conclusions about the natural progression from wolf to dog.



ENGAGE

Conversation Question: How are dogs and wolves related?

Distribute the article “Tale of the Dog” to the students and draw their attention to the yellow text box on page 6. Have them underline the adjectives that describe the dog breeds in the first sentence (tiny poodles, squat bulldogs, etc.). Set a timer for two minutes and instruct the class to list as many additional adjectives and breeds as they can, such as **protective Shepherd**. Invite students to share their lists.

INTRODUCE VOCABULARY

Post and discuss the three vocabulary words and definitions. Have students Think-Pair-Share with a partner. Give them the following directives, one at a time:

- Discuss examples of **alpha** characters in books and movies.
- What are some reasons that animal babies are **orphaned**?
- If you could time travel 100 years forward in time to meet your **descendants**, what questions would you ask?

READ & DISCUSS

Reinforce comprehension of the concepts presented in the article by using the following questions to direct a discussion.

1. What do recent DNA studies prove about the origin of dogs?
2. What did ancient humans and wolves have in common during the last Ice Age?
3. How are wolf packs organized?
4. How do wolves communicate and learn?
5. Explain why scientists think that food was the cornerstone of the relationship between man and wolf?

SKILL FOCUS: Collect Evidence

INSTRUCT: This article provides information about the evolution of domesticated dogs from wild wolves. Present the graphic organizer, *Collect Evidence: Fierce to Furry*, and tell students that they will be reviewing the article and highlighting sentences that provide evidence to support each of the claims stated. Remind students to cite information and details using page numbers.

ASSESS: Have students peer-review their work by sharing completed worksheets with another student. Circulate and guide as they discuss.

EXTEND

Research: Under the heading “Just Friends” on page 13, the article states, “Today, specially trained dogs—such as guide dogs for the blind and hearing ear dogs for the deaf—help people in many important ways.” Those are just two of the many jobs that dogs do to help humans. Have students research a type of trained dog and complete an informational page about it. Research should include: photo/drawings, breed, training procedures, duties/responsibilities, and target companion. Combine pages into a class book to be kept in your reading center for independent reading.

RESOURCES

Collect Evidence: Fierce to Furry

OBJECTIVES

- Students will learn how the domesticated dog is a descendant of the wild wolf.
- Students will collect evidence to support a claim.
- Students will contribute a page to a class book about working dogs.

KEY VOCABULARY

- **alpha** (p. 8) having the highest rank; the leader
- **orphaned** (p. 9) deprived of parents by death or desertion
- **descendants** (p. 11) a person or animal's young and all the beings who live after them who are related to them

Fierce to Furry

Collect Evidence Gather evidence from the text to support each claim. Include details and cite your findings by using page numbers.

Claim: The key to understanding how a wild wolf became a tame dog is wolves' relationship to humans.

Supporting evidence (P.____)

Claim: After many generations, the domesticated wolves started to look very different from their wild cousins.

Supporting evidence (P.____)

Claim: The researchers concluded that the dogs' ability to read human cues is not learned from people or inherited from wolves.

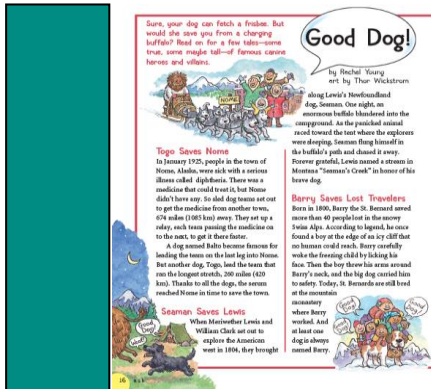
Supporting evidence (P.____)

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Good Dog! Bad Dog!

pp. 16–17, Expository Nonfiction

We've all heard a dog praised with the words, "Good Dog!" or admonished with the phrase, "Bad Dog!" Take a look at how these utterances had a bigger significance through history as you meet dog heroes and unintended villains.



RESOURCES

Construct Explanations: Devoted Dogs

OBJECTIVES

- Students will learn about dogs that played a role in history.
- Students will construct explanations.
- Students will plot the relay route of sled dogs in the 1925 Serum Run.

KEY VOCABULARY

- blundered** (p. 16) moved unsteadily or confusedly
- calamity** (p. 17) a disaster event marked by great loss and lasting distress and suffering
- overturned** (p. 17) tipped over so something is turned on its side or upside down

ENGAGE

Conversation Question: How are dogs and wolves related?

Create interest in the topic by showing the class animal clips online. Preview the clips (use a reputable source) and play some videos that show dogs who have saved the day, as well as clips of "naughty" dogs. Encourage students to share their own animal antics stories and then distribute the article, "Good Dog! Bad Dog!"

INTRODUCE VOCABULARY

Display the following statements and underline the key vocabulary terms. Review how to infer the meanings of new words by using context clues and background knowledge. Then have partners work together to determine the meaning of each word. Reveal definitions.

- The huge walrus blundered through the sandcastle village.
- Many people believed that this calamity marked the end of the world.
- A huge wave overturned the boat.

Emphasize the key words in the reading.

READ & DISCUSS

As a post-reading activity, lead a discussion based on the following questions.

- Why did the sled dog teams of Nome set up a relay?
- How did Meriwether Lewis honor his Newfoundland dog, Seaman?
- How did the fire in Isaac Newton's study allegedly get started?
- How did Moritz keep the Red Baron awake all night?
- The leading paragraph in red on page 16 notes that the article contains tales of famous canine heroes and villains. Do you think that dogs can truly be heroes and villains? Why/why not?

SKILL FOCUS: Construct Explanations

INSTRUCT: Advise students to review the article and to study the different animal heroes under the first three subheadings. Distribute the graphic organizer, *Construct Explanations: Devoted Dogs*, and tell the class that they will complete the chart with a partner. Students will need to provide clear explanations of each situation, the actions of the dog, and how they saved the day (outcome).

ASSESS: Review the chart with the class. Students should complete the THINK TANK activity independently. Collect to assess use of perspective.

EXTEND

Geography: Page 16 of the article recounts the historical journey to save a city. When the people of Nome, Alaska, were sick with diphtheria, a relay team of sled dogs set out to get life-saving medicine from another town, 674 miles away. Known as *The Serum Run* or *The Great Race of Mercy*, this life-saving run is well documented. Use books and online resources to plot the actual course and label each leg. Include names of dogs, mushers, cities, and any noteworthy events.

Devoted Dogs

Construct Explanations Refer to the article and locate information that provides explanations about the three heroic dog tales listed below. Include details in each answer.

Togo Saves Nome	
What was the situation?	What actions did the dog(s) take?
What was the outcome?	

Seaman Saves Lewis	
What was the situation?	What actions did the dog take?
What was the outcome?	

Barry Saves Lost Travelers	
What was the situation?	What actions did the dog take?
What was the outcome?	

THINK TANK: Use the chart to rewrite one of the events from the perspective of the dog in paragraph form.

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The Return of the Wolves

pp. 24–28, Expository Nonfiction

Within Yellowstone National Park, there are limitless opportunities to observe wildlife in a thriving ecosystem. Readers will learn how scientists worked for decades to restore the delicate balance of the park by reintroducing the gray wolf.



RESOURCES

Cause and Effect: Wolf Pack

OBJECTIVES

- Students will learn how wolves are an integral part of Yellowstone National Park's ecosystem.
- Students will analyze cause-and-effect relationships.
- Students will create a timeline chronicling the wolf's existence in Yellowstone National Park.

KEY VOCABULARY

- **ecosystem** (p. 25) a biological community of interacting organisms and their physical environment
- **biologist** (p. 26) a scientist who studies living organisms

ENGAGE

Conversation Question: How are dogs and wolves related?

Inform students that a national park is an area set aside by the national government for the preservation of the natural environment. The national parks in the United States tend to focus on the protection of both land and wildlife. Ask students to share experiences visiting a national park and show short video clips, if possible. Ask students how the environment influenced their activities and sightings there. (Students may also answer the same questions about a state park.)

INTRODUCE VOCABULARY

Post and read aloud the vocabulary words. Tell students that many scientific terms have Greek and Latin roots. Break apart the terms and show the root meanings. Then compare to actual definitions.

eco = environment; home / **system** = the whole creation

bio = life / **logist** = one who studies the topic of

Ask: "How does knowing the meaning of Greek and Latin roots help to give meaning to unfamiliar words?"

READ & DISCUSS

Post and discuss questions prior to reading. Have students read the article independently and answer the questions in full sentences.

1. Why do ecosystems need natural predators to be healthy?
2. How do biologists keep track of wolves in Yellowstone Park?
3. Why were some people unhappy with Yellowstone Park becoming a wolf recovery area?
4. Why were the wolves kept in a penned area at first?
5. What species have thrived throughout Yellowstone since the wolf population returned?

SKILL FOCUS: Cause and Effect

INSTRUCT: Guide students to acknowledge that an event in nature is often surrounded with causes and effects. Distribute the *Cause and Effect: Wolf Pack* organizer and tell students that they will be recording the causes and effects of the events that have shaped the ecosystem of Yellowstone National Park. Have them reread the article with a partner to underline passages that will be helpful for this purpose.

ASSESS: The students may work in pairs to complete the organizer. Review the answers and invite students to share their responses.

EXTEND

Social Studies: As a class activity, work with the students to create a timeline chronicling Yellowstone Park's founding in 1872 through the Wolf Recovery Program to the present day. Demonstrate how to properly set up the timeline from 1870–2025 and place dates and label events along the line. Ask for volunteers to assist at the board to complete the timeline. Remind students that a timeline is a tool for organizing information and can show how events in history are related.

Wolf Pack

Cause and Effect Consult the article to identify and explain the cause of the events listed in the center column, as well the effects upon the history of the ecosystem in Yellowstone National Park.

Cause	Event	Effect
	By the 1970s, wolves were almost gone from the whole United States.	
	With misguided intentions, park officials started killing the elk.	
	From 1995 to 1996, 31 Canadian gray wolves were moved to Yellowstone, and 10 more were brought from Montana.	
	Grizzly bears and birds are currently thriving in the park.	