

Hold On!

Take your time and "tiptoe" through this month's issue of CLICK magazine. Colorful photographs enhance the simple scientific explanations of the function of animal feet. These high-interest articles also explore the many ways that animals can use their tails . . . from sheltering to showing off.

CONVERSATION QUESTION

How do animals use their tails and feet?

TEACHING OBJECTIVES

- Students will learn about the characteristics of various animal feet.
- Students will learn how animal tails serve specific purposes.
- Students will learn about the physical attributes of various animal feet.
- Students will compare the size and shape of different animal feet.
- Students will examine the structure and function of different animal tails.
- Students will obtain and classify information.
- Students will use a ruler to measure objects to the nearest whole inch.
- Students will practice the literary device of alliteration.
- Students will study the basic anatomy of the human foot.



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

SELECTIONS

How Long Is a Foot?
Expository Nonfiction, ~700L
Talented Tails
Expository Nonfiction, ~700L
Whose Feet?
Expository Nonfiction, ~1100L

How Long Is a Foot?

pp. 10–12, Expository Nonfiction Jump in with both feet and get ready to learn. This article presents information about the size and shape of special animal feet and introduces the foot as a standard unit of measure.



RESOURCES

Neat Feet

OBJECTIVES

- Students will learn about the characteristics of various animal feet.
- Students will compare the size and shape of different animal feet.
- Students will use a ruler to measure objects to the nearest whole inch.

KEY VOCABULARY

- round (p. 12) shaped like a circle or a ball
- oval (p. 12) shaped like an egg
- narrow (p. 12) long and not wide

ENGAGE

Conversation Question: How do animals use their tails and feet?

Motivate students to think about feet by reading aloud *The Foot Book*, by Dr. Seuss. This silly book explores all different kinds of feet, serves as a primary study in diversity, and presents the reader with delightful rhymes and predictable opposites. Read the book a second time and have students "read" aloud with you.

INTRODUCE VOCABULARY

Display and read aloud the vocabulary words and definitions. Note that the words pertain to shape or size. Have students form a large circle. Describe the shape as *round*. Have some children move in to make the circle *narrow* and announce that they have formed an *oval*.

READ & DISCUSS

Reinforce comprehension of the details in the article by using the following prompts to direct discussion:

- 1. How many inches are in one foot on a ruler?
- 2. Do bigger animals usually have larger footprints? Why/why not?
- 3. What is special about a gorilla's big toe?
- 4. Do all feet have five toes? Which sentence from the article gives this information?

CONCEPT/SKILL FOCUS: Comparing Size/Shape

INSTRUCT: Students will compare the sizes and shapes of animal feet as presented in the article. Instruct pairs of students to reread the text and to underline information that will be helpful for this purpose. Introduce the *Neat Feet* graphic organizer and have the partners record the data on their charts.

ASSESS: Circulate and have mini-conversations with students as they are working. Remedial readers may work with a partner to reread the text. Collect the *Neat Feet* worksheet and review.

EXTEND

Mathematics Read aloud these sentences from page 10 of the article: "One foot on a ruler is 12 inches long. It's the same length on every ruler." Then distribute rulers to students and familiarize them with the hash marks and numbers. Have students measure simple objects (ex: pencil, glue stick) and of course, their foot! Instruct them on how to use the ruler to measure objects to the nearest whole inch.

Neat Feet

Refer to the article "How Long Is a Foot?" to record the sizes and shapes of the animal feet listed in the chart.

Animal	How long is the animal's foot? (inches)	Draw the animal's footprint
hedgehog		
African elephant		
gorilla		
mouse		
grizzly bear		

Which animal has the shortest foot? _____

Which anima	l has the	longest foot?_
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Talented Tails

pp. 13–18, Expository Nonfiction

Young students will enjoy learning that tails aren't just for wagging. This article uses descriptive details and beautiful photographs to explain the many different functions of animal tails.



RESOURCES

• Terrific Tails

OBJECTIVES

- Students will learn how animal tails serve specific purposes.
- Students will examine the structure and function of different animal tails.
- Students will practice the literary device of alliteration.

KEY VOCABULARY

- shelter (p. 13) to protect
- *guide* (p. 14) to direct the path of something
- *flee* (p. 15) to run away from danger
- *prop* (p. 16) to help something stand upright

ENGAGE

Conversation Question: How do animals use their tails and feet?

Allow the class to share knowledge about the function of animal tails by creating a K-W-L (Know-Want to Know-Learned) chart on the board. Have students share any prior knowledge and add this to the first column. Then record what they would like to learn about animal tails in the second column. Revisit the chart at the conclusion of the lesson to complete the third column.

INTRODUCE VOCABULARY

Post the vocabulary words where they are visible to the class. Instruct students to do a word hunt through the article to locate these words. Have them underline the sentences in which they appear. Challenge students to use context clues to determine meanings. Discuss actual meanings and add definitions to the terms posted on the board. Keep the definitions posted for use during the Concept/Skill Focus activity.

READ & DISCUSS

Read the article aloud with the class. Then display the questions below and have students work in small groups to reread the article and answer the questions. Discuss responses.

- 1. How do some animals use their tails for shelter?
- 2. How can an animal's tail attract a mate? How do you attract friends?
- 3. Why do some animals need to use their tails as an "extra hand"?
- 4. The article tells us that some animals use their tails for balance. What body parts help you to balance?

CONCEPT/SKILL FOCUS: Structure and Function

INSTRUCT: Elicit from students that the main idea of the article is to provide a detailed description of the function of specific animal tails. Present the *Terrific Tails* graphic organizer and tell students that they will be using information from the article and the color code key to record information from the article.

ASSESS: Circulate as students are working on the graphic organizer and discuss the information in the article. Collect the completed work to further evaluate the students' ability to properly match the animal tail with its special function.

EXTEND

Language Arts Review the literary device of alliteration (the use of words that begin with the same sound near one another). List the animal names on the board: fox, peacock, snake, monkey, kangaroo. Have students supply at least three alliterative words to describe each animal. Provide the following example:

the ______ fox (furry, friendly, fantastic)

Talented Tails

Terrific Tails

Refer to the article "Talented Tails" and use the Color Code Key at the bottom of the page to color each box the correct color.

rattlesnake	fox	zebra		
kangaroo	peacock	spider monkey		
turkey	chameleon	squirrel		
giraffe	skunk	If you were an animal, what type of tail would you like to have? Tell a friend.		

How does the animal use its tail?

BLUE: shelter	RED: warning		
GREEN: balance	ORANGE: wave and shoo		
YELLOW: attract a mate	PURPLE: helping hand		

http://www.cricketmedia.com/classroom/Click-magazine

Whose Feet?

pp. 19–21, Expository Nonfiction

Claws, paws, and hooves . . . this article leads students on a "step-by-step" exploration of animal feet. Can you guess the identity of an animal by studying its feet?



RESOURCES

• Step by Step

OBJECTIVES

- Students will learn about the physical attributes of various animal feet.
- Students will obtain and classify information.
- Students will study the basic anatomy of the human foot.

KEY VOCABULARY

- *flipper* (p. 19) a flat body part that water animals use for swimming
- hoof (p. 19) the hard covering on the foot of some animals, such as horses, cows, and deer
- *pads* (p. 2) the soft part on the bottom of the foot of some animals, such as dogs and cats

ENGAGE

Conversation Question: How do animals use their tails and feet?

Ask the students if they have heard of Big Foot and have them share what they know. Show the class a short video clip that explains the legend. Guide students to specifically notice the footprints shown. Then discuss the prints of other animals and what can be learned from examining them.

INTRODUCE VOCABULARY

Discuss the key vocabulary words and definitions with your students. Ask them to identify the category that all of these words belong to, such as *Animal Feet*. Have students share experiences that they have had visiting a zoo or a farm and what they noticed about animal feet. What other words could fit into this category?

READ & DISCUSS

Pose the following questions to the students to facilitate meaningful discussion following the reading of the article:

- 1. What do humans use their feet for?
- 2. What do animals use their feet for?
- 3. How do the pads on a tiger's paws help it to hunt?
- 4. Which animals in the article have feet adapted to water?
- 5. How do hooves protect a horse's toes?

CONCEPT/SKILL FOCUS: Classifying Information

INSTRUCT: Guide students to obtain information from the text, captions, and photos in the article. Remind students that the article was written to teach readers about the attributes of animal feet. Introduce the *Step by Step* graphic organizer and instruct students to record their findings. Lead the activity and demonstrate how to reread pertinent passages and how to mark the correct column.

ASSESS: Review information that the students have recorded on their charts. Direct any students with incorrect findings back to the text. Encourage peer remediation.

EXTEND

Science Review with students how this article studies the physical attributes of various animal feet. Take this opportunity to teach the class about the structure of the human foot. Display a simple foot diagram and have students participate in labeling the following parts: toes, heel, ankle, arch, and sole. Discuss the purpose of each. Use more advanced labels if your students are at a higher level.

Step by Step

Use information from the article "Whose Feet?" to classify the foot facts below. Place an **X** in the correct column to show which animal the statement describes.

Animal Foot Facts	Chimp	Lizard	Tiger	Sea Turtle	Horse
This animal has thick pads on its feet that help it sneak up on prey.			X		
This animal runs on its tiptoes.					
This animal has long toes with fringe- like scales on its back feet.					
This animal uses its foot like a hand.					
This animal's front flippers work like paddles in the water.					
This animal pulls its claws back into a pocket of skin to keep them from wearing down.					
This animal has a big toe that moves and bends like a thumb.					
This animal has one long toe that is protected by a tough hoof.					
This animal uses her flippers to crawl and to dig a nest for eggs.					