



Say Hello to the Horse

Saddle up and take young readers on a ride through a trough of information about horses. This issue of *Ask* provides students with a bounty of equine vocabulary by including articles that study the physique, body language, and the people who care for these magnificent animals.

CONVERSATION QUESTION

Why are horses such spectacular animals?

TEACHING OBJECTIVES

- Students will learn how horses are physically designed to be strong runners.
- Students will learn how a farrier cares for a horse's hooves.
- Students will learn how a horse's body language is deciphered.
- Students will identify the structure and function of a horse's physical features.
- Students will demonstrate the ability to properly sequence a studied process.
- Students will collect evidence from a science-based text.
- Students will use examples from the articles to further study the parts of speech.
- Students will create presentations highlighting the role of horses throughout history.
- Students will create a mathematical code for answering equations.



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

- **Born to Run**
Expository Nonfiction, ~550L
- **A Visit from the Farrier**
Expository Nonfiction, ~650L
- **How to Speak Horse**
Expository Nonfiction, ~650L

Born to Run

pp. 6–7, Expository Nonfiction

Students will be captivated by the beautiful photograph and the article's simple text, which explores the speed and endurance of one of nature's most amazing long-distance runners, the horse.



RESOURCES

- Run Like the Wind

OBJECTIVES

- Students will learn how horses are physically designed to be strong runners.
- Students will identify the structure and function of a horse's physical features.
- Students will use examples from this article to further study the parts of speech (adjective/noun).

KEY VOCABULARY

- **balance** (p. 7) to keep something steady so it will not fall
- **endurance** (p. 6) the ability to sustain a prolonged stressful activity
- **energy** (p. 6) the strength and power required for sustained physical or mental activity
- **power** (p. 6) to move or travel with great speed or force

ENGAGE

Conversation Question: Why are horses such spectacular animals?

Create interest in this topic by reading aloud descriptive passages from *Black Beauty* or the *Black Stallion*. Select paragraphs that describe the horse's strong body, its beauty, and its speed. Guide students to notice the language used and the images created for the reader.

INTRODUCE VOCABULARY

List the key words on the board and have groups of children share their ideas about the meanings. Inform the class that they will encounter these words in their reading and challenge them to predict the theme. Then post the definitions and display the title, "Born to Run." Distribute the article, read aloud, and revisit predictions.

READ & DISCUSS

Reinforce comprehension of the concepts in the article by using the following prompts to direct discussion.

- Why would a horse be able to outrace a cheetah?
- How do large lungs help horses to run fast over long distances?
- How do horses keep cool while running?
- What is the purpose of the horse's hard hoof?

CONCEPT/SKILL FOCUS: Structure and Function

INSTRUCT: Elicit from students that the main idea of the article was to provide a detailed description of how a horse's body is built for running. Present the graphic organizer, *Run Like the Wind*, and tell students that they will be using information from the article to record the special function of each body part listed. They will be essentially recording why horses are "Born to Run."

ASSESS: Circulate and have mini-conversations with students as they work on their graphic organizer. Remind students to include specific details. Collect and review their work to further assess understanding.

EXTEND

Language Arts Redistribute the completed graphic organizers and direct students to notice that all of the structures listed on the chart contain an adjective (describing word) and a noun (person, place, or thing). Discuss how adjectives help us form specific images of the nouns. Have students use this issue of *Muse* to keep an ongoing list of nouns from the article, and the adjectives that describe them.

Run Like the Wind

Refer to the article, "Born to Run," to study how the physical structures of a horse allow it to function as one of nature's most spectacular long-distance runners.

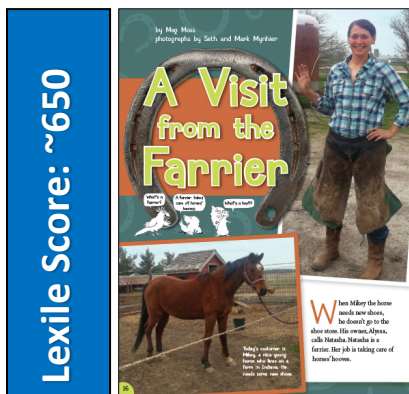
Structure	Function
Large Lungs	
Long Neck	
Massive Muscles	
Sensitive Eyes	
Powerful Feet	
Tough Toes	

Drawing Challenge: On the back of this paper, draw a horse and label the body parts listed above.

A Visit from the Farrier

pp. 16–19, Expository Nonfiction

Gallop through this informative text that introduces young readers to the job of a farrier. Students will learn about the tools and techniques that help these equine professionals complete their work.



RESOURCES

- Happy Hooves

OBJECTIVES

- Students will learn how a farrier cares for a horse's hooves.
- Students will demonstrate the ability to properly sequence a studied process.
- Students will create presentations highlighting the role of horses throughout history.

KEY VOCABULARY

- **cleats (p. 19)** little spikes on horseshoes to give working horses extra grip on snow or slippery ground
- **farrier (p. 16)** a craftsman who trims and shoes a horse's hooves
- **frog (p. 17)** a triangle-shaped pad on the underside of a horse's hoof
- **keratin (p. 17)** a fibrous protein forming the main structure of hair, feathers, claws, or hooves

ENGAGE

Conversation Question: Why are horses such spectacular animals?

Begin a class discussion by posing the following question: "How do we care for the animals in our life?" Additionally, discuss the professionals who help keep our pets in good health. Introduce the title of the article, "A Visit from the Farrier," and give the students clues (one at a time) that will lead them to determine the job of a farrier.

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.

READ & DISCUSS

Reinforce information presented in this article by using the following prompts to direct discussion.

- What tools does a farrier need?
- Why is it important to trim a horse's hooves?
- How does a farrier smooth the walls of the hooves after clipping?
- Why do some horses need shoes while others go barefoot?

CONCEPT/SKILL FOCUS: Sequence and Process

INSTRUCT: Review with the students that this article was written to inform the reader about the job of a farrier. The article included an explanation of the necessary tools, as well as provided the sequence of steps needed to appropriately care for the hooves of a horse. Distribute the graphic organizer *Happy Hooves*, and tell students that they will be using details from the text to complete the process-and-sequence worksheet. Direct students to reread the article with a partner and to search for relevant information before they begin working on their chart.

ASSESS: Have students read aloud their completed work. Evaluate orally for accuracy and allow time for corrections. Divide the class into five groups and have each group make a poster that illustrates one of the steps of the sequence. When all are completed, arrange them so that they tell about the job of a farrier through pictures. Have the students share the posters with younger students and explain the process orally.

EXTEND

Social Studies Horses have been an integral part of US history. Have students research this relationship between human and horse and present their findings to the class. A short written project, with graphics, should accompany their presentation.

Happy Hooves

Describe the farrier's process of caring for a horse's hooves by rewriting the statements below in the proper order on the lines provided.

- The bottom of the hoof wall is filed.
- Horses are petted and cuddled after completion of the farrier's process.
- A hoof pick is used to clean out the dirt that builds up around the hoof pad. (frog)
- Nails are used to hammer the horseshoe into the hoof wall.
- Nippers are used to clip off extra hoof growth.

1. _____

2. _____

3. _____

4. _____

5. _____

How to Speak to a Horse

pp. 20–22, Expository Nonfiction

Neigh! Students will learn how horses read the expressions of other horses in their herd, in addition to being able to read human faces. Subtle cues and a variety of sounds aid in the interactions between animals and man.



RESOURCES

- Horsing Around

OBJECTIVES

- Students will learn how a horse's body language is deciphered.
- Students will collect evidence from a science-based text.
- Students will create a mathematical code for answering equations.

KEY VOCABULARY

- **clenched** (p. 20) pressed tightly together (jaw/teeth) expressing anger
- **nicker** (p. 21) a horse's soft, low, breathy whinny
- **swishing** (p. 20) moving with a rushing sound

ENGAGE

Conversation Question: Why are horses such spectacular animals?

Create a game of charades by distributing cards containing words that describe specific basic emotions. (Ex: happiness, anger, nervousness, sadness) Encourage volunteers to act out these emotions for their peers to guess. Actions and sounds are allowed . . . but no words! This activity will launch you into the article and inspire children to learn more about the body language of humans and animals.

INTRODUCE VOCABULARY

Display the words and definitions on the board and discuss all of the key terms. Instruct students to create a sentence for each of the words. Have the class highlight the words as they appear in the text and then compare these sentences to their own. Do the sentences infer clear meanings? Why or why not?

READ & DISCUSS

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

- How can humans learn to read a horse's body language?
- What are some of the different messages that horses can convey with their sounds?
- Explain how scientists tested a horse's ability to read human emotion.
- How was "Clever Hans" able to give correct math answers?

CONCEPT/SKILL FOCUS: Collecting Evidence

INSTRUCT: This article presents the reader with an abundance of detailed information regarding the body language of horses. Tell students that they are going to be *Horsing Around* and collecting evidence that will help them determine which trait is being exhibited by a certain action. They will need to consult the article to gather accurate information. Allow students to work with a partner if assistance is needed.

ASSESS: The objective of this lesson is to help students practice the skill of collecting evidence from a science-based text. Create dialogue as the students are working on their charts, and then collect organizers to evaluate individual understanding.

EXTEND

Mathematics With the class, reread page 22, which explains how "Clever Hans" answered math questions. Although it was discovered that the horse was reading human facial cues, have the children create a code in which an animal could indeed answer equations. Encourage the class to work in small groups and use their imaginations. Depending on the animal's physical abilities, they could create codes using paw taps, wags, a trunk wave, etc.

Horsing Around

Collect evidence from the text to decide which trait the horse is exhibiting by the action described in the sentence. Write the word that best completes the sentence on the line.

afraid	curious	mad	stressed
relaxed	annoyed	interested	alerting

1. Pricked up ears means that a horse is _____.
2. Showing the whites of the eyes means that a horse is _____.
3. A horse may chew and lick its lips when it's calming down after being
_____.
4. Head up, ears pricked forward, tail up, and nostrils wide tell us that the horse is
_____.
5. Fast swishing of the tail can mean that the horse is _____.
6. A high-pitched neigh can mean that the horse is _____
everyone to danger.
7. Head thrust out, snaking back and forth with teeth bared can mean that the horse is
_____.
8. "Airplane ears" can mean that the horse is _____.