

**UNITED FEDERATION OF TEACHERS
HUMANE EDUCATION COMMITTEE**

**52 Broadway, 12th Floor
New York, N.Y. 10004**

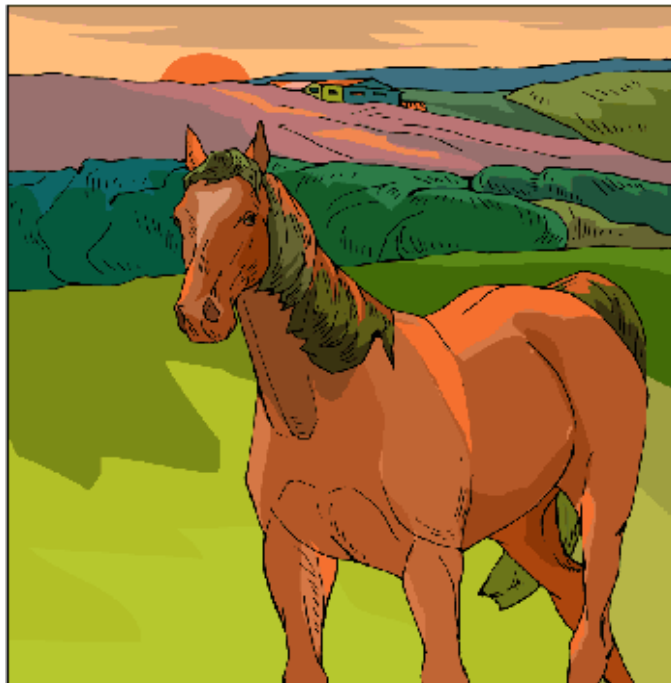
LEARNING ABOUT HORSES

GRADES SIX TO TWELVE

by United Federation of Teachers Humane Education Committee

Sheila Schwartz, Chairperson, United Federation of Teachers Humane Education Committee, organized the lessons in this unit. Some of the information has been excerpted from a longer unit on horses that was originally developed in the 1990s. Units for grades pre-kindergarten to one, two to five and six to twelve have been developed thanks to a grant provided by the American Society for the Prevention of Cruelty to Animals (ASPCA).

UNIT OVERVIEW: In this unit students will learn about the history of wild and domesticated horses. Students will develop an understanding of the ethical issues involved in the use of horses. They will learn about people who have worked to make life better for horses, and about how students and adults can become involved in helping horses.



The first, second and fourth pictures of horses are from Millermark Creations Free Horse Multi-Colored Horse Clipart.

PERFORMANCE OBJECTIVE I: Students will be able to identify the ways in which horses have lived and evolved - - with regard to their relationship with humans - - from pre-historic times to the onset of the industrial revolution.

Motivation: Ask students how long they think the horse has been in existence. The students may be surprised to know that the answer is around 60 million years. Ask students, "How do you think humans used horses in the earliest times? How did people use horses throughout history? How do people use horses in the year 2009?" Record their answers on a chart. Save the answers so that the students can compare their original answers to the ones they will have after they read the handout.



Activities: Read and discuss the following handout with students.

LEARNING ABOUT HORSES

• The History of Horses

The origins of the equine species can be traced back 60 million years ago to the Eocene period. In 1867, scientists excavating rock structures of that period in the American South discovered a complete skeleton of what became known as the first horse. They called it *Eohippus*, meaning The Dawn Horse. *Eohippus* descends from the *Condylarth*, a group that was the distant ancestor of all hoofed creatures and lived on earth about 75 million years ago. It was no bigger than a dog and was five toed, with each toe having a horny nail.

Eohippus was succeeded by two similar and probably overlapping types in the Oligocene period, 25-40 million years ago. These types of horses were called *Mesohippus* and *Miohippus*. Both of these animals were bigger with longer legs and were equipped with teeth that enabled them to eat a variety of soft plants. Their toes were reduced to three on each foot, with most of the weight supported by the center toe.

During the Miocene period, between 10 and 25 million years ago, the jungle environment gave way to treeless plains and steppes, supporting a low growth of wiry grasses. Adapting

to these changed conditions, the horse developed teeth that were suitable for grazing and a longer neck to make the grasses easier to reach. The position of their eyes altered to give them all around vision against the approach of predators.

Pliohippus was the first single-hoofed horse which evolved around 6 million years ago. *Pliohippus* was the prototype for the true horse, *Equus caballus*. Populations emerged a million years ago. This was a half million years before the arrival of humans. *Equus* spread from America over the existing land bridges to Europe and Asia. It is believed that when the glaciers retreated, about 10,000 years ago and the land bridges disappeared, horses became extinct on the American continent. Only those that migrated over the land bridges survived, and it wasn't until the arrival of the Spanish Conquistadors in the 15th century, that the horses' existence was re-established in America.

The only true wild horse in existence today is Przewalski's horse, however, few live in the wild today. A Russian explorer named Przewalski found a herd along the border of China and Mongolia in 1870. They were the last survivors of huge herds that once roamed the area. They are currently being bred in zoos all over the world including New York City's Bronx Zoo. In 1995, twenty were sent to Mongolia, where they were released into the wild.



Przewalski's horse

• Relationships Between Humans and Horses

Archeological and paleontological evidence indicates that the horse was domesticated approximately 5,000 years ago. By that time (approximately 3,000 BCE – Before Common Era), the dog had been a human companion for 9,000 years. People had already been herding goats, sheep and cattle for over 5,000 years. Cave paintings in France leave no doubt that the horse was a prime source of food for Stone-Age hunters. However, when the Stone-Age ended, and the Bronze Age began, humans in Europe and Asia had had generations of experience working with the horse. They kept horses mainly for meat and milk, used their hides to make tents and clothing, and their manure, which they dried, to make fires (as nomads still do today). By 3,000 BCE, people had learned to cultivate grain and therefore, were assured a regular food supply other than the horse. This luxury allowed humans to appreciate the horse for qualities other than feeding a family of four for a week or more.

• Domestication

The earliest evidence of horse domestication has been found in the steppes of the eastern Ukraine, northern Caucasus, central Russia and Kazakhstan. Humans had never found hunting horses easy and taming them was even more difficult. Cattle and sheep were slower than horses and easier to control in herds. Using the horse posed a great challenge because not only were they fast, they were skittish as well. Humans found that taming and gaining the trust of the horse was a dangerous task. Tamed horses were hitched to carts long before being mounted. It is speculated that mounting the horse for the first time probably took place during herding.

• Horses in War

The mobility that horses gave to people changed the way of war forever and helped shape history today. For at least 1,000 years, horseback riders clung to their horses with their legs. This required great skill and balance and made it difficult for warriors to throw spears or shoot arrows accurately. But by the 8th century, stirrups were developed and a new horseman came into existence - - the armored knight. At first these knights wore fairly lightweight suits of flexible armor, but by the 14th century, metal smiths were fashioning heavy arrow proof armor out of metal plates for the knight and the horse.

Unfortunately, between the weight of the armor, the man, and the weapons, the horse was carrying over 400 pounds. Strength, not speed, became the important factor during medieval battles. Knights on horseback would charge at each other with long lances, trying to knock the opponent off of his horse. In battle, a knight without his horse was usually doomed.

Eventually, however, armor became obsolete. Knights on horseback were simply too slow and unable to maneuver as well as lighter cavalry, and by the beginning of the 1500s, canons and other firearms were being invented. Therefore steel suits were no longer able to protect man. By the 1700s, cavalry were armed only with swords or guns and became an army's main fighting source. During the Civil War (1861-1865) both sides, the Union troops, and the Confederates had cavalry in their armies. During World War I, tanks and powerful weaponry took horses out of the firing line. However, tough and hardy breeds of horses such as the Australian Waler, were still used as officers' mounts and for hauling artillery and ambulances.

• Horsepower" and The Industrial Revolution

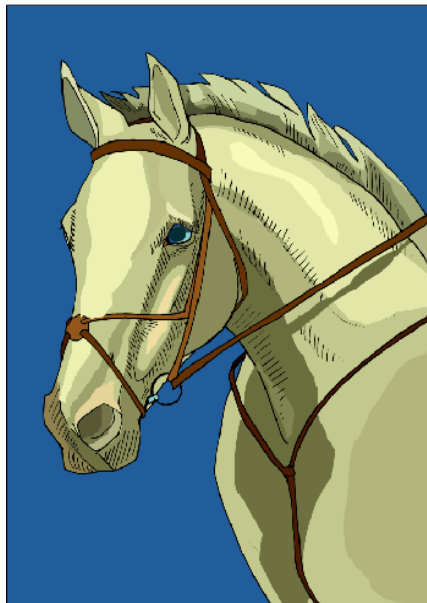
The word "horsepower" is a modern-day reminder of how humans used the power of horses to simplify their work. Horsepower is a unit that is used to measure machine power (1 unit of horsepower = 746 watts.) For hundreds of years, horses were the main power source for every merchant and farmer. The horse was used to fill numerous needs in the economy. Before internal combustion engines, horses were used to turn millstones to grind wheat into flour. They were the power that kept all factory machines and furnaces running. They plowed the land, pulled stagecoaches and mail coaches. Even the first trains were horse-drawn on steel tracks.

However, once the internal combustion engine was invented, the need for the horse to work declined. Trains replaced the horse as a means of travel and they were no longer used in war. By the 1920s, most horses were replaced with cars, nicknamed horseless carriages, and trains, called iron horses.

PERFORMANCE OBJECTIVE II: Students will be able to discuss the ethical issues involved in human use of horses today.

Motivation: Discuss with students the fact that domesticated horses are dependent on people for good care which includes nutritious food, clean water, grooming and kindness. The ways in which owners treat and train their horses vary considerably ranging from superior care, to adequate care, to inadequate care. The use of reward versus punishment to train horses also varies considerably.

Working horses that can no longer perform tasks to the satisfaction of their owners sometimes are killed at a slaughterhouse. Their bodies are used as food for human or animal consumption, to produce hides, as fertilizer, to be used as gelatin in products such as Jell-o. The lucky ones live out their final years at retirement farms and some are euthanized. <http://equineprotectionnetwork.com/rescue/rindex.htm>



Activities: Have students research information and then discuss their views about the use of horses for each of the following.

- recreational riding
- by the mounted police
www.regardinhorses.com/2008/05/07/police-horses-at-work-in-nyc/
www.nyc.gov/html/nypd/html/pr/pr_2008_006.shtml

- in races
- in entertainment including rodeos and circuses
www.asPCA.org/about-us/policy-positions/rodeo.html
- as carriage horses
www.asPCA.org/pressroom/press-releases/121808.html
www.asPCA.org/pressroom/press-releases/013009.html

Ask students to explain their viewpoints. There will be no right or wrong answers but students should be encouraged to show empathy and responsibility.

For an enjoyable trip that can help with the collection of research data, New York City students might go to the American Museum of Natural History to view the largest collection of fossil-horse skeletons in the world. Students may also want to visit the Bronx Zoo to see the Przewalski Horse. Information about this horse can be found at <http://www.mhref.com/breeds/takhi/index.html> . Students can also get information from the American Museum of Natural History's website devoted to the horse at <http://www.amnh.org/exhibitions/horse/> .



Przewalski horses

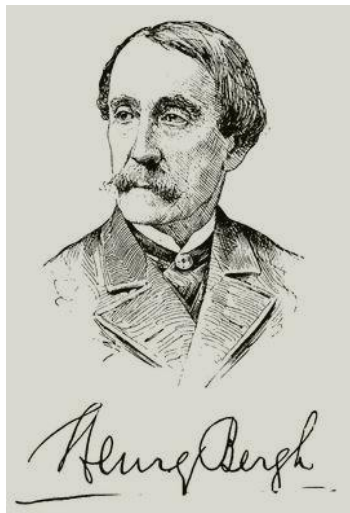
PERFORMANCE OBJECTIVE III: Students will learn about individuals who helped horses.

Motivation: Ask students if they have ever heard of Henry Bergh or Wild Horse Annie and how they helped horses. If possible, bring books and Internet articles about these individuals to class for students to read and discuss.

Activities:

- Log onto <http://learningtogive.org/papers/paper357.html> . Copy this sheet for student to read and discuss. How did Henry Bergh help a horse in Russia? Who did he meet in London? What did he decide to do when he got back to New York? When was the ASPCA formed?

What was the family business until 1843? Why didn't Henry Bergh have to work after 1843? What was he think of bull fighting? Why did he go to Russia? How did he help NYC animals? How did he help a young girl named Mary Ellen? How did Henry Bergh's work help animals and children? Why do you think Henry Bergh worked to help horses and other animals and children?



Henry Bergh

- Log onto <http://www.saveourwildhorse.com/annie.htm> for information about Wild Horse Annie. Duplicate, read and discuss with students. What did Velma Johnston notice when she was driving? Where were the horses being taken? What was happening to the yearling? What would happen to the other horses? Why do you think she was outraged?



Wild Horse Annie

How did her younger sister describe Velma? What happened to her at age 11? Where did Velma and her husband live? What was her campaign to help horses based upon and why? Describe how horses were rounded up for slaughter in the 1950s? How did Velma get the nickname “Wild Horse Annie?” Who supported her campaign?

How did school children try to help horses? What is the Wild Horse Annie Act, when was it passed and how does it help horses?

PERFORMANCE OBJECTIVE IV: Students will write letters to send to Congress to help horses. Student photographs of horses can be included as well. Most teachers can involve their students in letter writing campaigns without administrative approval. However, if it is customary to ask for principal approval to conduct a letter writing campaign, please follow school protocol.

Motivation: Ask students if they would like to become involved in a campaign to help horses. In 1959, Wild Horse Annie’s successful campaign to help horses involved students throughout the United States. The Wild Horse Annie Act became Public Law 86-234 on September 8, 1959 and said that motorized vehicles could no longer be used to hunt wild horses and burros on all public lands in the United States.

Students’ letters and drawings can help make an important difference for horses in 2012!

Activities: Have students discuss whether or not they think horses that people in the United States no longer want should be killed for human consumption, that is, so that people in other countries including France, Germany and Canada can eat them. Do we eat horses in the United States? Why or why not?

Please consider having your students join the campaign to pass the **Horse Slaughter Prevention Act S. 1176 and H.R. 2966. These bills, introduced in the House of Representatives and Senate, would stop the slaughter of American horses for food consumption by banning their shipment to foreign slaughterhouses. At the present time, American horses are being shipped to Canada and Mexico for slaughter.**

Information can be found by logging onto

http://animalrights.about.com/od/animalrights101/ss/Top-10-Animal-Rights-Stories-Of-2011_8.htm and www.equinewelfarealliance.org/How You Can Help.html

We encourage teachers to write as well.

ORGANIZATIONS WORKING TO PROTECT HORSES IN THE UNITED STATES

- The **American Society for the Prevention of Cruelty to Animals'** (ASPCA) website is www.aspca.org. It was founded by Henry Bergh on April 10, 1866 as the first humane society in the Western Hemisphere. Very shortly after the formation of The ASPCA, Bergh convinced the New York State legislature to pass an anti-cruelty law and to give The ASPCA the authority to enforce it. One of the first cases that was brought before the courts was that of a cart driver who used a wheel spoke to beat his fallen horse. This case served as the inspiration for the ASPCA's seal, depicting an avenging angel rising up to protect a fallen horse. Henry Bergh also helped to develop a horse ambulance, and had one on the streets before ambulances were used to transport humans in distress.

Today, the ASPCA continues to work to achieve Henry Bergh's mission "to provide effective means for the prevention of cruelty to animals throughout the United States" on a wide variety of issues including horses."

- **American Wild Horse Preservation Campaign** at <http://www.wildhorsepreservation.com/>
- **Equine Advocates'** website is www.equineadvocates.com/. The mission of Equine Advocates is to rescue, protect, and prevent the abuse of horses through education, investigation, rescue operations, and the dissemination of information to the public. The organization deals primarily with five main issues of importance: Equine Rescue, Horse Slaughter, Wild Horse Issues, The PMU (Pregnant Mares' Urine) Industry, The Prevention of Equine Abuse. They have a horse sanctuary in Chatham, New York.
- **Equine Welfare Alliance**, website is www.equinewelfarealliance.org. Equine Welfare Alliance is an umbrella organization representing over 200 member organizations and hundreds of individual members worldwide in 18 countries. EWA and its members are involved in a grass roots effort dedicated to ending the slaughter of American Horses and the preservation and protection of our Wild Horses & Burros on public lands. A video about heir children's letter writing campaign to end U.S. Slaughter of Horses for Human Consumption can be found at <http://www.youtube.com/watch?v=LpINoZ2CqJo>

BOOKS ABOUT HORSES FOR GRADES SIX TO TWELVE

- Ransford, Sandy, *Horse and Pony Care* (Kingfisher Riding Club), Kingfisher Books, Ltd, July 2004
- Sewell, Anna, *Black Beauty* (Unabridged Classics), Sterling Publishing, October 2004
- Tuorto, Diana, *My Desert Sun*, Book Surge Publishing, March 2009

DVD:

- **Equine Advocates Featured on the Martha Stewart Show**
<http://www.youtube.com/watch?v=APg72ZIHOMY>