Giddy Up and Go with AITC's Favorite Horse Resources!

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AGRICULTURE IN THE CLASSROOM℠
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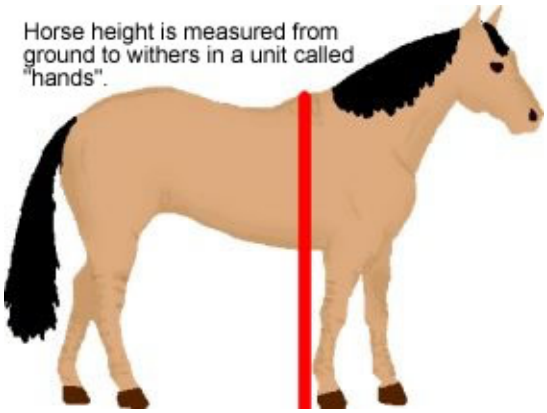
Agriculture in the Classroom's Horse Favorites Unit has been generously sponsored by the ***Virginia Horse Industry Board****.*

A Handy Measure

Standards of Learning
Math 1.10



Objective
Students will:

- Be able to use nonstandard units as well as a ruler/yardstick to measure height.

Materials

- masking tape
- yardsticks
- construction paper
- scissors
- *Optional Extension Worksheets*

Background Knowledge
Horses helped settle the "New World," and they are still important today. Early horse traders found it was easier to use their hands to measure horses than to carry around measuring sticks. They would count hand-widths from the ground to a horse's withers, the high part of its back, between the shoulder blades. A horse is generally 14.2 hands (14 hands and 2 inches) or taller. Anything shorter than 14.2 hands is considered a pony.

This activity provides a great opportunity for your students to learn about measurements since you will be talking about inches. There are many different types of measurements such as those for volume, area, and length and this is something that you will want your students to know. When you start talking about inches then you can get into feet and how there are 12 inches in a foot. This can further go into the fact there are 3 feet in a yard so how many inches are there in a yard? This can be a fun guessing game for your students before they actually use a measuring stick to find out how many inches are in a foot, feet in a yard, and inches in a yard. You may also want to ask your students how many inches they think are in 14 hand widths, but it is important to remind them that everybody's may not be the same because they all have different sized hands. This activity brings a lot of experiment to classroom for students to learn with numbers.

Procedure

1. Discuss how a horse is measured using hands using the background knowledge above
2. Along a wall, measure 14 hand widths and 2 inches from the floor. Place a piece of masking tape to mark the height.
3. Explain to students that the tape represents the usual height of a horse. Label the tape accordingly.
4. Divide students into pairs to measure each other's heights.
5. One student should stand with his/her back to the wall while the other marks the height with a piece of masking tape. Have students label each piece of tape with his/her name.
6. Use a yardstick to measure the height from floor to tape marker. Record this data.
7. On a piece of construction paper have students carefully trace their hands. Have students estimate how many hands they think will be necessary to measure their height.
8. Have each student trace and cut as many hands as needed to measure his/her height.
9. Allow students to tape hands to the wall from floor to tape marker to visually display their heights.
10. Discuss whether or not students' predictions were correct.

Extension

Have students estimate the length, height, and width of classroom objects using hands or inches. Then have them test their predictions.

Extension Worksheets, attached.

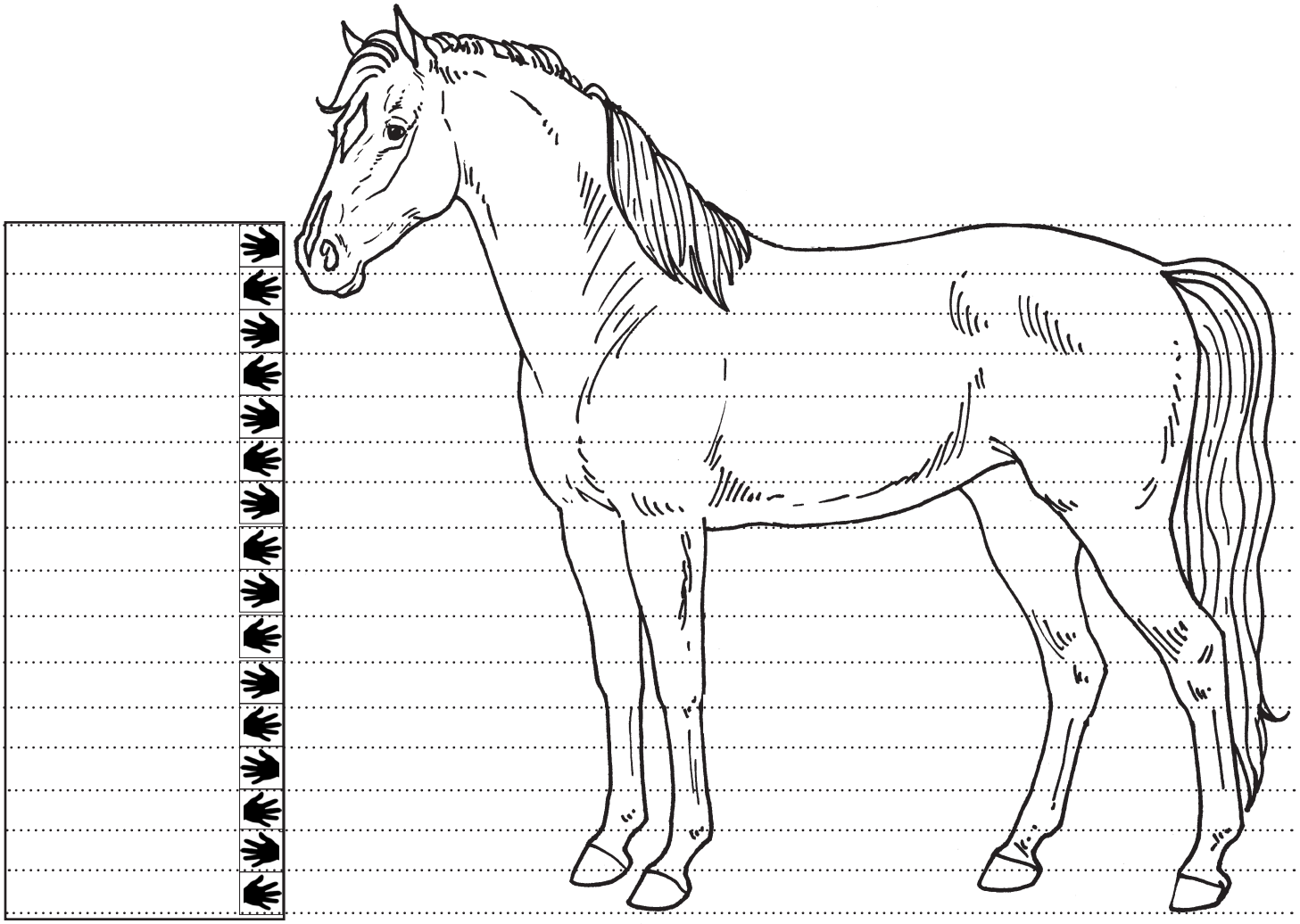
References

Lesson adapted from Oklahoma AITC

Name_____

A Handy Measure

Horses are measured by the hand, from the ground to the withers. The withers is the high part of the horse's back, between the shoulder blades. The average width of a man's hand is four inches. A horse must be 14.2 hands tall to be called a horse. Anything shorter is a pony.



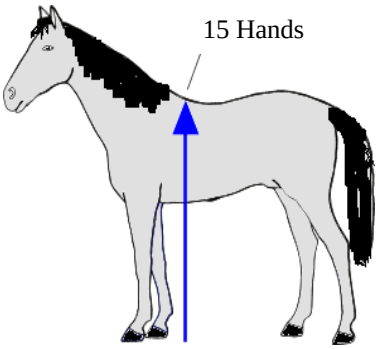
1. Count the hands in the picture above. The animal in the picture is _____ hands tall. Is it a horse or a pony?_____
2. Stand with your back to the wall and get your partner to place tape on the wall just above your head. Use a yardstick or meter stick to measure from the floor to the tape. How tall are you?_____.
3. Draw a picture of yourself in the space below, at left. Use the hands to draw yourself at the correct height.
4. On another sheet of paper, trace your hand. Use a ruler to measure the widest part of your hand below your fingers. How wide is your hand? _____
5. Use your hands to measure. How many hands tall are you?_____ hands

Name_____ **Today's Date**_____

Directions: Carefully look at each horse and read the measurement from its withers (shoulder blades) to the ground. Each measurement will ask you to either determine how many "hands" tall the horse is or to convert hands into feet and inches.

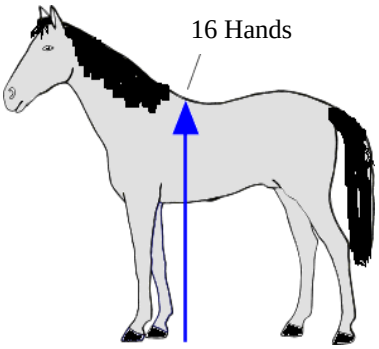
Important things to know: In the horse world a "hand" is equal to 4 inches. There are 12 inches in a foot.

Example:



This horse is 15 hands tall, convert this measurement into feet and inches. Answer: 5 feet tall

Solution: 15 hands x 4 inches = 60 inches
60 inches ÷ 12 inches = 5 feet tall at the withers



1. This horse is 16 hands tall, convert this measurement into feet and inches. Answer_____

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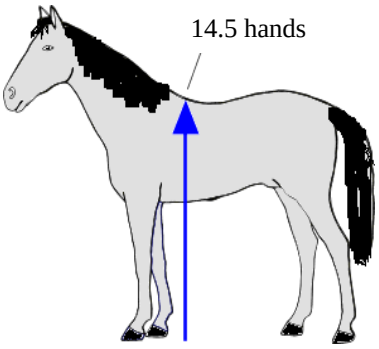

2. This horse is 14.5 hands tall, convert this measurement into feet and inches. Answer_____

Show Your Work Here:

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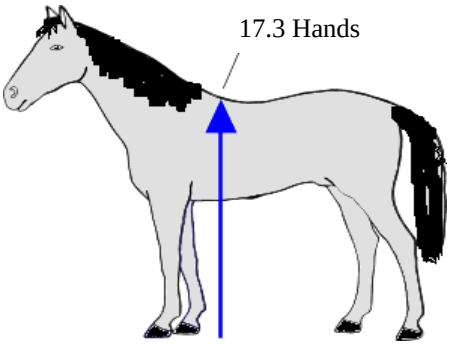
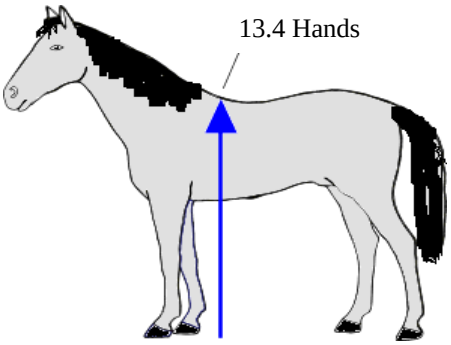
3. Thoroughbred horses have long legs and are tall. From the pictures and measurement above, which horse do you feel could be classified as a Thoroughbred due to its height? _____



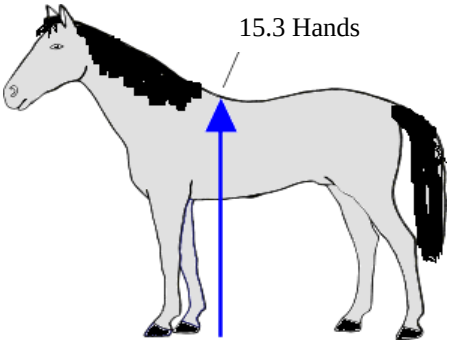
4. This horse is 17.3 hands tall, convert this measurement into feet and inches. Answer_____

Show Your Work Here:



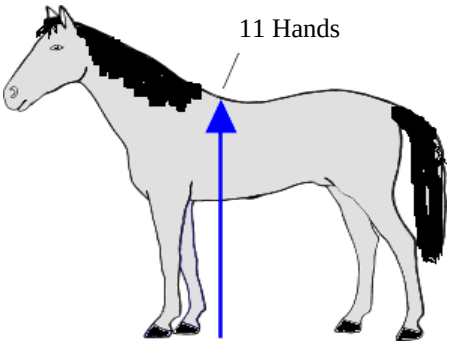
5. This horse is 13.4 hands tall, convert this measurement into feet and inches. Answer_____

Show Your Work Here:



6. This horse is 15.3 hands tall, convert this measurement into feet and inches. Answer_____

Show Your Work Here:



7. This horse is 11 hands tall, convert this measurement into feet and inches. Answer_____

Show Your Work Here:

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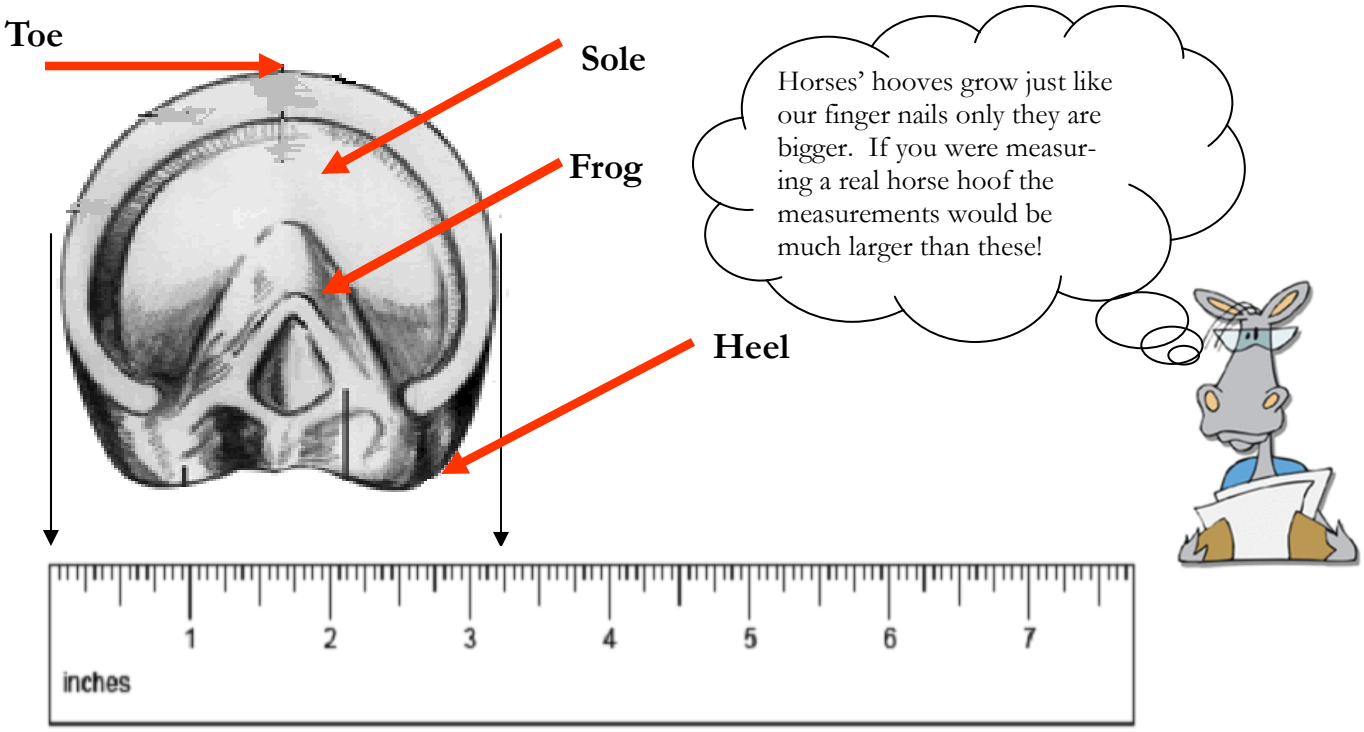
8. If a horse is 5 feet 2 inches from the ground to the withers, how many hands tall is the horse?_____

(Hint just reverse the math equation but don't forget to put it into inches before you divide.)

9. How wide is the bottom of this horses foot ? _____ inches. (Measure between the marked lines.) Convert the inches into cm_____.



10. Measure this horseshoe to determine if it will fit on the horse's foot above? Horseshoes can be bent ½ inch with a hammer, that being said will this shoe fit the foot above? _____

Hungry Horses

Standards of Learning
Health: 4.1

Objective
Students will:
- Understand that the basic needs of horses, including proper nutrition.

Materials
- Small, resealable snack bags
- "Horse Feed" -
    - Popcorn—carbohydrates
    - Peanuts—protein
    - Raisins—vitamins
    - Small pretzels—minerals
    - Puffed wheat—carbohydrates
- Cereal boxes

Background Knowledge
Farmers provide for the basic needs of their animals by giving them food, clean water, shelter, and access to veterinary care. The food we give to animals is called feed, and its components make up a healthy meal for the animals. Just like people, animals need a well-balanced diet to stay healthy.

Horses get many of their vitamins through grazing on grass and other plants in a pasture. As ruminants they are uniquely suited to grazing as their stomachs can convert the grasses to protein. In addition to grazing, farmers provide them with feed so that they get all of the vitamins and minerals that they need. For example, their feed will include soy meal for extra protein, as well as oats or corn. Vitamins and minerals may be added to their feed as well, much as Vitamin D is added to milk that people drink.

Procedure
1. Explain to students that just like us, horses need a variety of foods to meet their nutritional needs.
2. Put students into groups and give each a cereal box, have them find on the label what vitamins and minerals were added to the cereal. Discuss the importance of various vitamins and nutrients on proper growth and development. Explain the importance of a balanced diet and its role in providing all the essential vitamins and nutrients.
3. Identify the various types of food that horses need—carbohydrates, protein, vitamins, and minerals. Tell them that you will be making a feed bag to represent these nutritional needs.
4. Give each student a small, resealable plastic bag.
5. Label and place the items listed in the Materials section in separate bowls with plastic spoons. Have students add each of the items to their feed bags and then enjoy a healthy snack!

References
Lesson adapted from Oklahoma AITC

The Pony Express

Standards of Learning
Language Arts: 3.6, 4.6, 5.6

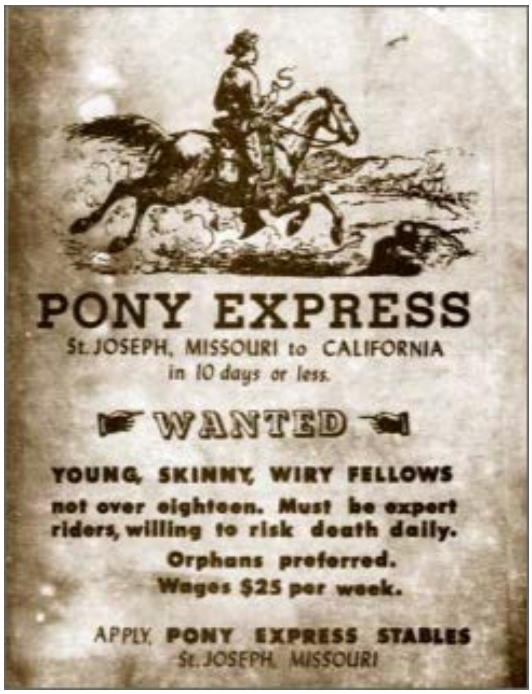
Objective
Students will:
- Demonstrate comprehension of a nonfiction text.

Materials
- Nonfiction reading, "The Pony Express," attached
- Comprehension questions, attached

Background Knowledge
In the early days of settlement horses played a vital role in getting information to the western states. The horses and their brave riders were called the Pony Express and they lasted from April 1860 to October 1861, when the telegraph line was completed. Their route ran from Missouri to California, a distance of about 2000 miles, with about 165 stations along it. The most famous and quickest delivery was that of Lincoln's Inaugural Address, which was done in 7 days and 17 hours.

Procedure
1. Discuss how messages are sent today. Ask students what they would do to get news or to hear from family if there were no televisions, phones, or internet. Tell them that in the times before such inventions (as well as that of the train or car) the fastest mode of transportation was by horseback, and thus the invention of the Pony Express.
2. Pass out the reading selection on the Pony Express. Have students read and then answer the comprehension questions.

References
Lesson adapted from Illinois AITC



The Pony Express

1 In the 1860's there were no such things as cell phones and computers for email. Imagine living on the west coast of the United States and trying to get important information to the east coast. Communication in the time of the 1860's was virtually impossible. It took a post card more than a month to travel across the states. Most mail was delivered with the help of covered wagons pulled by horses or mules. Weather conditions and threats of attack only made delivering the mail more difficult and slower.

2 The idea of an express mail system was developed by William Russell, Alexander Majors, and William Waddell. The three men were promised a million dollar grant from the United States government to start the mail system that would help the government communicate faster.

3 The Pony Express was set up to be a horse relay. The goal of the Pony Express was to keep the mail moving day and night. It allowed mail to travel from the East to California in just eight days compared to the months it had taken before.

4 The relay system worked by having each rider and horse gallop at high rates of speed for distances of ten to fifteen miles. It was believed that most horses traveled at about 10 mph. At each stop a rider would receive a fresh horse and continue on. There was said to be about 165 relay stations and each rider was to stop at six to eight stations before they turned the mail over to a new rider.

5 The men and horses worked as a team to ensure that the mail was delivered quickly and safely. The fastest delivery was said to contain President Lincoln's inaugural speech and it took 7 days and 17 hours.

Name_____ Today's Date_____

Comprehension Questions

1

Why was the Pony Express created?

A To allow people to be able to send mail.
B To make it safer to send mail.
C To create a faster way to deliver mail.
D To create more jobs for people in California.

2

The fastest delivery recorded by the Pony Express was delivering what piece of information?

A A telegram containing important Civil War information.
B An important weather forecast.
C A check for William Russell.
D President Lincoln's inaugural speech.

3

How many relay stations were set up for the Pony Express riders?

A 155
B 160
C 165
D 175

4

Which of the following men was **NOT** involved in the creation of the Pony Express?

A William Russell
B Abraham Lincoln
C Alexander Majors
D William Waddell

Name_____ Today's Date_____

Comprehension Questions

5

What does "virtually" mean as it is used in paragraph 1?

A Not able to happen.
B Almost but not quite.
C Can not happen without help.
D Completed.

6

True or False The Pony Express was set up to be a relay system that kept the riders going day and night.

A True
B False

7

What word could replace "developed" in paragraph 2?

A Defeated
B Disregarded
C Established
D Separated

8

This writing is best described as which of the following writing styles?

A Nonfiction
B Fiction
C Humor
D Biography

Name_____ **Today's Date**_____

Comprehension Questions

1

Which type of writing is this passage?

A Narrative
B Persuasive
C Expository
D Descriptive

2

How was the mail delivered before the Pony Express?

A By Train
B By Mailman on foot
C In a covered wagon pulled by horses and mules
D By automobile

3

What did riders most likely do after their route was completed?

A Rested and then waited for the return mail so they could ride back towards home.
B Ride back home without mail.
C Set up a new home at the location where they stopped.
D Walk back to their starting location.

4

What is the **antonym** for *Express* in the sentence below?

"The men developed the idea for an *express* mail system."

A Fast
B Slow
C Quick
D Speedily

Name_____ Today's Date_____

Comprehension Questions

5

Paragraph 3 of this selection is mainly about ——

A The inventors of the Pony Express.
B How the Pony Express was set up and where it traveled.
C The fastest delivery ever made by the Pony Express.
D How fast the riders went.

6

Why did the Pony Express have 165 relay stations?

A To give riders a break.
B To pick up more mail.
C To allow riders to switch to a fresh horse.
D So riders would not get lost on the trail.

7

To learn more about the Pony Express a reader could —-

A Research it on the Internet.
B Interview a Pony Express rider.
C Read a book about the Pony Express.
D Both A and C would be ways to obtain more information.

8

What does the word *fresh* mean in the sentence below?

"At each stop a rider would receive a *fresh* horse and continue on the trail."

A A young horse
B A clean horse
C A trained horse
D A rested and ready to run horse

Name_____

Horse Cents

Before you decide to buy a horse, you should consider all the costs involved, not just the cost of buying the animal.

Estimated Equipment Costs

Round to the nearest dollar to estimate the cost of equipment. Record the estimate in the far right column.

saddle	$599.75	
bridle	59.65	
saddle pad	30.32	
winter blanket	70.95	
halter	20.18	
curry comb	4.00	
hoof pick	.98	
brush	7.75	
buckets	35.00	

Total estimated costs $_____

Estimated Horse Care Costs

Round to the nearest dollar to estimate the cost of equipment. Record the estimate in the far right column.

feed	$2.34
foot care	.33
veterinary service	.50

Total costs per day $_____

Total costs per week $_____

Round the costs per week to the nearest .10. $_____

Round the number of weeks per year to the nearest 10. X _____

Multiply these two numbers to get the Estimated Horse Care Costs Per Year.

$_____

Facility Costs per Year

Round to the nearest dollar to estimate the cost of equipment. Record the estimate in the far right column.

corral	$998.25	
shed	722.98	
storage	30.32	

Total estimated facility costs per year
$_____

Estimated Total Costs

Estimated Equipment Costs $_____

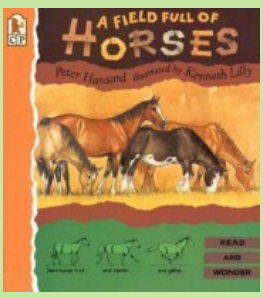
Estimated Facilities Costs $_____

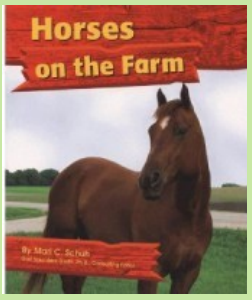
Estimated Horse Care $_____

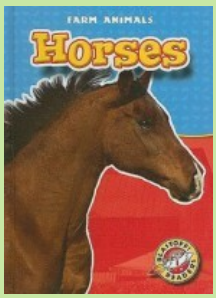
ESTIMATED TOTAL COST$_____

AITC's Reading Round-Up

- A Field Full of Horses by Peter Hansard
- Farm Animals: Horses by Emily Green
- American Saddlebred Horses by Kim O'Brien
- The Last Rider: The Final Days of the Pony Express by Jessica Gunderson
- Leah's Pony by Elizabeth Friedrich
- Horses by Gail Gibbons
- The Girl Who Loved Wild Horses by Paul Goble
- Horses and Ponies by Anne Milbourne
- Caring for Your Horse by Erin Monahan
- The Pebble First Guide to Horses by Zachary Pitts
- Horses Have Foals by Lynn Stone
- Horses on the Farm by Mari Schuh







Clothespin Horse

Virginia is the nation's 5th largest equine state. The equine industry began in Virginia 1610 with the arrival of the first horses to the Virginia colonies. Horses were used for travel and to pull plows as well as tread wheat. Today, horses are used for racing, pleasure riding, hunting, competitions, and breeding.

You will need:

Cardstock paper
Crayons, colored pencils and/or markers
Glue
Scissors
Horse template, attached
Bits of cut paper, ribbon, sequins, yarn, feathers, buttons, glitter, etc
A book about horses

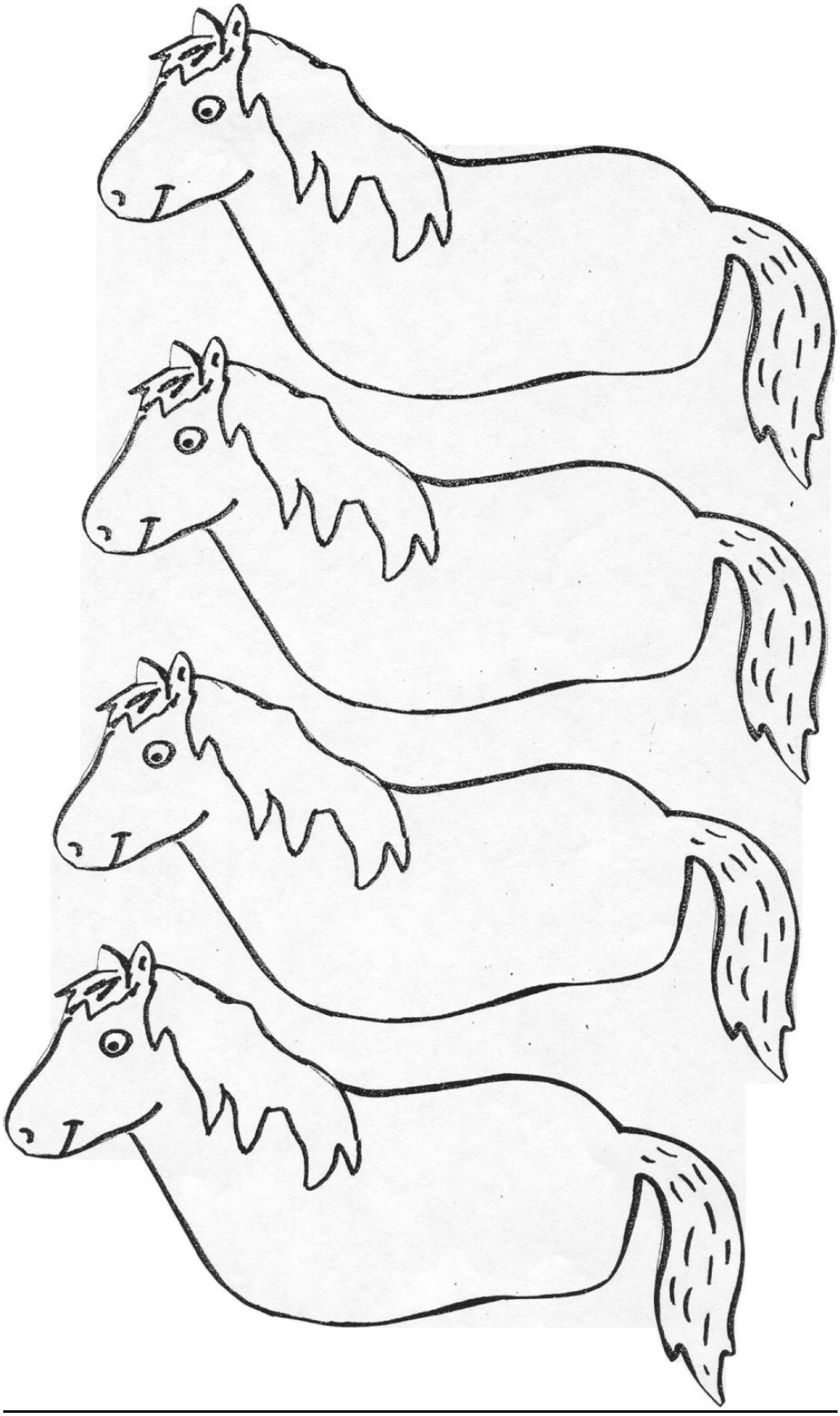
How to:

1. Read and discuss the horse book with children.
2. Cut out the horse shapes and color using crayons, colored pencils, or markers.
3. Decorate with yarn for the mane and tail.
4. Decorate the rest of the horse with glitter, sequins, ribbons, etc.
5. Once glue is dry, pinch on a clothespin for the front legs and one for the back legs.

Suggested Books:

Leah's Pony by Elizabeth Friedrich
Field Full of Horses by Peter Hansard
Horses by Gail Gibbons

ENRICHMENT ACTIVITY



Giddy-Up Pony

Horses have lived on Earth for more than 50 million years. It is believed that horses were first domesticated in Central Asia around 4000 BC for meat and milk. Today, there are more than 400 different breeds of horses.

You will need:

Brown or black construction paper
Scissors
Markers/crayons
Brown or black yarn
Glue
"googly" eyes (optional)

How to:

1. Begin by reading a book about horses. Point out the various defining characteristics of horses, such as their coloring or markings. A breed is an animal group that shares many of the same characteristics. There are more than 100 different breeds of horses!
2. Have each child trace their foot on a piece of brown or black construction paper and then cut it out. This will form the horse's head.
3. Cut out neck and ears from the leftover piece of construction paper.
4. Complete the horse by adding eyes and nostrils.

ENRICHMENT ACTIVITY