



**PennState**  
College of Agricultural Sciences

# PA 4-H

## Horse Cloverbud

### Activity Book C



Name: \_\_\_\_\_

Club Name: \_\_\_\_\_

County: \_\_\_\_\_



# Notes for Volunteers

Thank you for helping with the PA 4-H Horse Cloverbud Program! Here are some notes to help you lead this project:

- The PA 4-H Horse Cloverbud Policy & Safety Guidelines must be followed at all times when using this activity book. Please see your Extension Office or <http://extension.psu.edu/4-h/projects/horses/cloverbud-program/cloverbud-policy-and-guidelines> for a copy of the policy and guidelines.
- Many sections include a variety of activities. At least one activity per section must be completed.
- There will be three PA 4-H Horse Cloverbud Activity Books. All Cloverbud members in one club or group should complete the same book in the course of one year, regardless of their ages or the length of time they have been members. Ex: This year, all Cloverbud Horse Club members complete Book B. Next year, all members will complete Book C, etc.
- Currently, this curriculum is available as an electronic publication. Please contact your local Extension Office for printed copies.
- For additional Cloverbud activities, please refer to our Leader & Educator Resource page located at <http://extension.psu.edu/4-h/projects/horses/cloverbud-program/leader-resources>.

## PA 4-H Horse Cloverbud Mission

This educational program provides safe, fun, hands-on, developmentally appropriate learning opportunities for 4-H youth ages 5 to 7 years (as of January 1st). Using horses, this program will focus on participation as well as cooperative learning in informal settings.

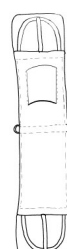
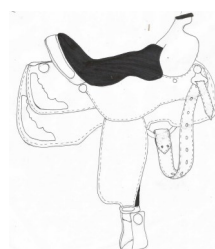
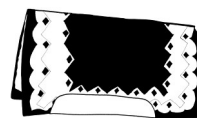
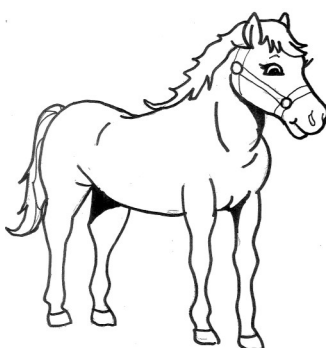
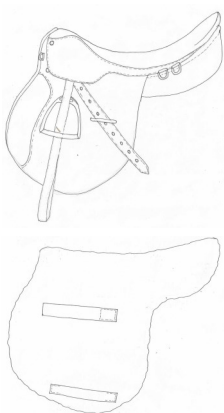
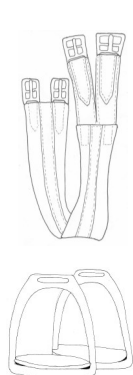
### Summary of Differences Between the Cloverbud Program and the Traditional 4-H Program

	Cloverbuds	4-H Program
Type of Learning	Activity-centered	Project-centered
Type of Instruction	Leader-directed	Self-taught, Individual,
Recognition	Participation	Achievement
Recognition Goals	Participation	Competition, achievement
Learner Resources	Activity manual	Project manual



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# My 4-H Club



4-H Club Name: \_\_\_\_\_

My Project Helper's Name: \_\_\_\_\_

4-H Leader's Name: \_\_\_\_\_

My Leader's Phone Number: \_\_\_\_\_

Other Club Members: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

4-H Educator's Name: \_\_\_\_\_



# A Little Bit About Me

Place your picture here

Name: \_\_\_\_\_ Age: \_\_\_\_\_

My Family Members: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

My Favorite Activities: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_



# About 4-H

## 4-H Emblem

The 4-H emblem is a four leaf clover with the letter "H" on each leaf, which stands for head, heart, hands and health. The colors of the emblem are green and white.

Can you color the clover to make it a 4-H clover?



## 4-H Motto

**"TO MAKE THE BEST BETTER."**

This motto challenges everyone involved in 4-H to do the very best job they can.

## 4-H Slogan

**"LEARNING BY DOING."**



# The 4-H Pledge

I Pledge:



(Right hand over heart)

My Heart to  
Greater Loyalty

My Head to  
Clearer Thinking



(Right hand points to forehead)



(Arms at sides)

and My Health to  
Better Living,

My Hands to  
Larger Service



(Arms slightly bent, palms up)

For My Club, My Community, My Country, and My World.



# My Club and County Activities and Events

Event

Date






# A Little Bit About My Horse

Please tell us about a horse you ride.

Place a picture of your horse here

Name of Horse: \_\_\_\_\_

Breed: \_\_\_\_\_

Gender: \_\_\_\_\_ Age: \_\_\_\_\_

Color: \_\_\_\_\_

Where is your horse kept? \_\_\_\_\_

Who helps you care for your horse? \_\_\_\_\_

\_\_\_\_\_

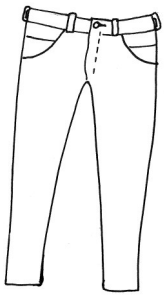


# Getting Ready

Here are some tips to prepare you to work around horses.

## Are you in the right mood?

We all get very excited and sometimes very grumpy, but it is important to remember that when you work around horses, you need to act responsibly! So if you need to yell, scream, jump with joy - don't do it around the horses. You don't want to frighten them!



## What are you wearing?

Your clothing should be comfortable and fitted. Clothes should not be so tight that you cannot freely move your arms or legs and should not be so loose that your shirt or pants get caught on the saddle. If you are planning to ride, be sure you are wearing long pants to avoid pinching from the saddle.

## Do you have your helmet on?

A properly fitted helmet is essential when working with horses. Your brain controls your entire body, so your head is the most important thing to keep safe. See the helmet page in this book for information on proper fit of a helmet.

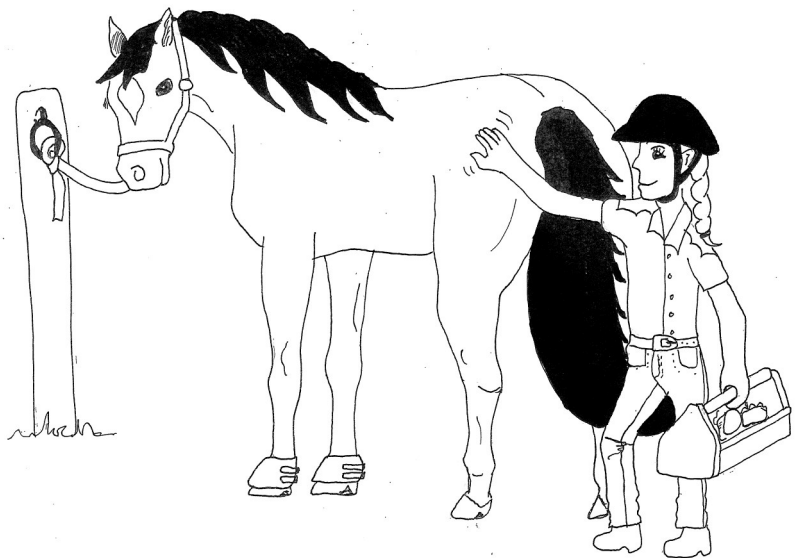


## Are you wearing boots or hard riding sneakers?

The right footwear will protect your feet in case a horse accidentally steps on you. Never work around a horse in sandals, flip-flops, bare feet or even



soft sneakers. If you plan to ride, make sure your boots have a heel to prevent your feet from slipping through the stirrup.



# HEADS UP!!!

Follow these guidelines when selecting your riding helmet:

Always wear an **ASTM/SEI** certified riding **HELMET**

When the helmet is rocked backwards and forwards, eyebrows and skin on forehead should move with the helmet.

The back of the harness should be snug enough to keep the helmet from moving forward.



Helmet should be level and sit  $\frac{3}{4}$  to 1 inch above the eyebrows.

The side straps should meet just below and in front of your earlobes.

The throat strap should go under your chin, and should be snug, but not tight.

Helmet should be replaced after a direct impact from a fall.



Graphic Design: 2006 Graphics: jessica@vmeq.org  
Background Image: Graphics: copyright by merlin jones



No helmet can protect against every head injury. However, studies show a great reduction in both the number and the severity of injuries in those who use helmets every time they ride.



# Horse Safety

## Stable Safety

Safety is always important around horses. We've talked about keeping you safe; now let's talk about keeping your horse safe. There are many different safety hazards in a horse's environment that you need to be aware of and prepared for. In this section, we'll talk about keeping your horse safe in the barn, in the pasture and in case of emergencies.

### Barn Safety

#### Stalls

Many horses spend a lot of time in their stalls. Think about some things that a horse does in its stall. Can you name some?



A good size for a box stall is 12 feet by 12 feet. You may need a larger one if you have a bigger horse. It is probably about the size of your bedroom. Could a horse live in your bedroom?

Horses like to roll and sometimes kick, so you'll need to make sure any open spaces in the stall are small enough that a horse can't get its foot stuck. The floor in both the barn aisle and stall should be a rough, non-slip surface. No skating rinks for these horses!

#### Aisles (Hallways)

Barn aisles should be at least 10 to 12 feet wide. However, this width still does not give you enough room to walk around your horse without entering the horse's comfort or flight zone. Therefore, when passing horses tied in the aisle, approach each horse carefully and pass in a safe manner.

For your safety and your horse's, keep the aisles clear of junk. Be sure to put away shovels, brooms, and manure forks. Grooming tools and tack should be stored in a tack room or a separate area. Be sure to remove loose hay, baling twine, and trash regularly.

#### Feeders & Feed Storage

Feeders should be hung as high as your horse's chest and have no sharp edges. Feeders should be sturdy and easy to clean. Feed tubs on the ground may also be used, if they have no sharp edges and do not easily overturn.

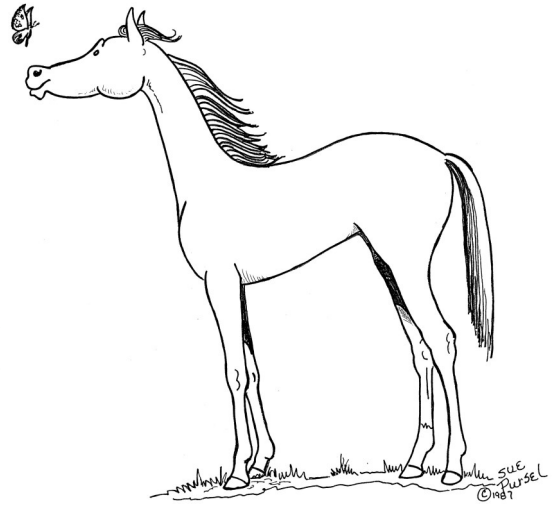
Grain must be kept in a securely locked grain room or container. The grain room needs to be ventilated to prevent mold and dust. The grain bin should be securely locked so that a loose horse cannot get into the bin and to the grain. A securely locked grain bin also prevents other animals, like cats or mice, from getting into the grain.



The safest way to feed hay is on the floor. Hayracks can also be used, but need to be at the same height as your horse's withers, or shoulders. If the hay is higher than your horse's withers, it can cause dust and particles to go into your horse's nose and eyes and can lead to problems with your horse's lungs or eyes. Be aware that a horse's leg could be caught in a hayrack and injured.

## Pasture Safety

If your horse spends most of their time in a pasture, it's important to check on them at least twice a day. It is best to remove halters from a horse that is loose in a stall or turned out in a pasture. If keeping a halter on is necessary, use a safety or breakaway halter. Remember to use adult help whenever handling horses to and from a pasture.



## Water & Shelter

Your horse needs a constant supply of fresh water at all times, whether the horse is in a stall or pasture. Make sure water buckets and troughs are clean and easily accessible. Your horse should also have access to a windbreak or shelter such as a thick grove of trees or run-in shed.

## Fencing



*Lisa Witmer, Penn State University*

Fences for horses must be strong, visible, tall enough to discourage jumping, and in good repair. Board or vinyl fencing is usually the safest type of fencing. If smooth wire fencing must be used, then it needs to have flags, signs, or colored wire that can increase visibility.

You are responsible for making sure the gate to your pasture is closed and latched every time you enter or leave a pasture. Gates should close tight to the post with no gap in between. A gate latch should be used to keep your horse inside the pasture.

## Check Your Pasture

Machinery, equipment, and junk should not be kept in the pasture. If these items are in your pasture, remove them if possible or keep your horse from becoming injured by putting a fence around the machinery and junk. The area and footing around feeders, water sources, and gates should be free of holes, rocks, or other debris that may injure your horse.

Also check regularly for downed tree limbs, holes in the ground, and broken or loose fencing and gates.

# Preparing for an Emergency

We never know when an emergency will take place, so it's important to be prepared!

## Barn Fire Prevention

Keeping your barn clean and sweeping down any cobwebs will help prevent fires. Ask a parent to make sure any electrical outlets are clean and in good condition to prevent fires. All electrical appliances should be unplugged when not in use. Portable heaters, heat lamps, and fans should be used with caution and should not be left unattended.



Clipart/Microsoft Office

Storing any hay or straw in a different building than where your horses are stalled can also keep horses safe in the event of a fire. "No Smoking" signs should be posted in an area they can be easily seen and followed.

A fire extinguisher should be available every 50 feet in the barn. Your local fire department can service your extinguisher to be sure it is charged and ready to use.

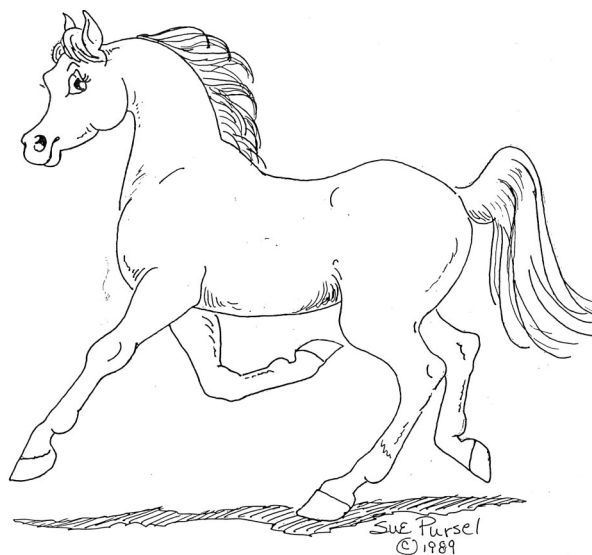
## Emergency Contacts

Keep an easy-to-read list of the following phone numbers near the phone:

- 911 or emergency dispatcher
- fire department
- local police or sheriff 's office
- poison control
- electric or gas supply
- relative or neighbor
- parent's work number
- veterinarian

Also keep a copy of these numbers in a nearby location, like a fence post or in your house, so that they are readily available in the event of any emergency.

Always have specific directions to the farm written down by the phone for the emergency dispatcher. The address to the barn should be easily read and seen from the road to allow emergency responders to easily locate your facility.





Find the safety hazards in the picture below and color them.





## Safety Activities

### Check Out Your Stable

	Good	Fair	Needs Improvement	Changes
Stalls				
Aisles				
Feeders/Storage				
Water				
Fence				
Pasture				
Fire Safety				
Emergency Contacts				





# Horse Management

## Who Keeps Your Horse or Pony Healthy?

### Chiropractor

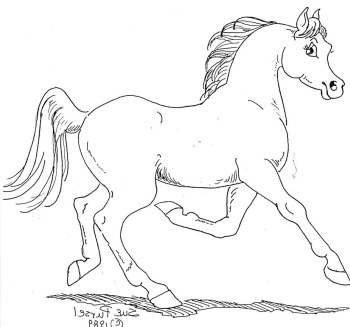
An equine chiropractor focuses on the relationship between structure and function and how that relationship affects health. Equine chiropractic is a form of manual therapy that uses short lever, high velocity, low amplitude, controlled thrusts. Adjustments are applied to certain regions of the body to induce a therapeutic response. Chiropractic treatment is not a substitute for, but rather a supplement to, proper veterinary care.

**Several Tools of the Trade:** Hands, CAT (Chiropractic Adjust Tool)

### Farrier

A farrier trims, shapes and balances a horse's hooves and places shoes on their hooves, if necessary. Their routine work is primarily hoof trimming and shoeing. If the animal has a heavy work load, works on abrasive footing, or needs additional traction, then shoes may be required. Additional tasks for the farrier include dealing with injured or diseased hooves and application of special shoes for racing, training or special purposes.

**Several Tools of the Trade:** Rasps, hoof knife, hoof picks, nippers, clinchers, cutters, pullers, stand, hammers, anvil



Does your horse or pony wear shoes?

### Equine Dentist

An equine dentist performs regular dental checkups on horses which are essential to maintaining a healthy horse. Horses with healthy teeth will be more comfortable, utilize feed more efficiently, may perform better, and will likely keep their teeth longer.

**Several Tools of the Trade:** Speculums, floats, dental stands, dental mirror

### Massage Therapist

An equine massage therapist uses their hands to put pressure on a horse's skin and muscles in ways that can relax the animal, decrease pain and stress, and assist in injury rehabilitation. In many cases, massage therapists travel to the farm. Massage therapy is not a substitute for, but rather a supplement to, proper veterinary care.

**Several Tools of the Trade:** Hands, massager, equistix

### Veterinarian

Who is your horse or pony's veterinarian?

Veterinarians provide health care for horses. They provide vaccinations, treat injuries, and diagnose and treat diseases. Veterinarians perform surgery on horses when needed. If your horse needs to see the veterinarian, they typically visit the animals at farms. Other duties may include performing pre-purchase exams, monitoring the reproductive health of breeding stallions and broodmares, assisting with foalings, and taking x-rays.

**Several Tools of the Trade:** Stethoscopes, thermometers, syringes, weight tape



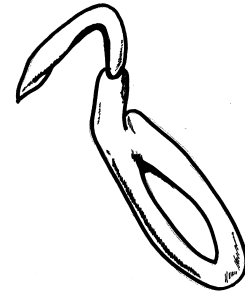
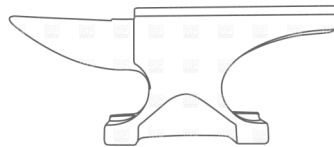
## Management Activities

### What Goes Together

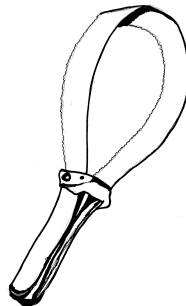
Circle the picture or pictures that belong with the first one.



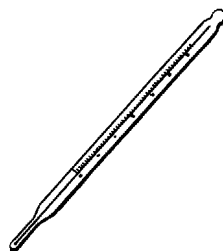
Bethany Bickel,  
Penn State University



Lisa Witmer,  
Penn State University



Skeeze on pixabay.com CCO





# Horse Identification

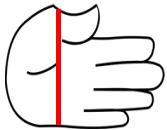
## Measuring Your Horse

Giraffes are measured in feet. Horses, ponies and donkeys are measured in hands. Miniature horses are measured by inches. The largest horse on record is 21 hands!! That is 84 inches or 7 feet! The smallest miniature horse on record is 17  $\frac{1}{2}$  inches. That equals 1 foot 5  $\frac{1}{2}$  inches. That is a big difference! BUT the tallest GIRAFFE ever was 20 feet!!

### Measuring Points

So, are horses and giraffes measured the same? Giraffes are measured to the **TOP** of their **HEADS**. Horses are measured to the **TOP** of their **WITHERS**. If you measured a horse to the top of his or her heads, there would be a fairly significant difference in their heights.

### So what is a "hand"?



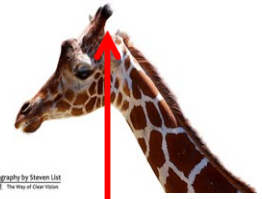
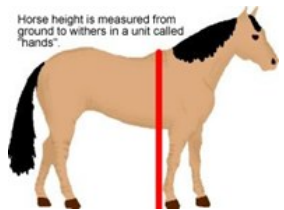
One hand is equal to 4 inches. Originally horses were measured by the width of a person's hand, which was approximately 4 inches. Place one hand on the ground

with the other above it, repeat the process of moving one hand above the other until you reach the horse's withers. The term used for height measurement of a horse is "hands high" or "hh." Often the height is just over a number of hands, for example, 16 hands and 2 inches and the height is therefore referred to as 16.2 hh.

### Measuring Method

To measure a horse or pony it is best to ensure they are stood squarely\* on solid ground as this will give the most accurate height measurement. A measuring stick designed for measuring a horse's height is the best way to measure a horse. This consists of an upright "ruler" marked out in hands and inches with an arm that slides up and down containing a level on the arm. The stick is then placed upright alongside the horse and the horizontal arm lowered until it sits on the highest point of the withers and adjusted until the level in the arm indicates it is level. A measuring stick for a miniature horse is similar to the one used for a horse or pony, but is marked only in inches.

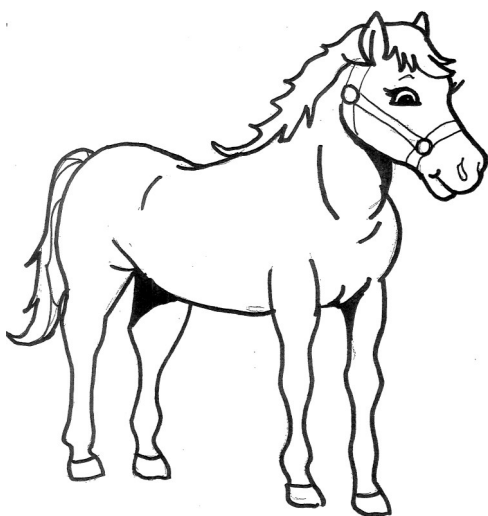
There are also tape measures marked out in hands and inches that can be used, but these are more difficult to get an accurate measurement.



Photography by Steven Lill  
EQUUS: The Way of Our Horses  
Wright, Bob, Dr. "The "Hand" Measurement for Horses." *Biologycorner.com*, 2001. Web. 13 Sept. 2016.

\*Squarely means with their front feet even and their back feet even.

## What do the Measurements Mean?



The difference between a pony and horse is determined by the size. A pony is 14.2hh (58 inches or 4 feet 10 inches) or less. A horse is any height over 14.2 hh.

Ponies are divided by size: small, medium, and large ponies. Small ponies are 12.2 hands and under. Medium ponies are over 12.2 hands up to 13.2 hands. Large ponies are over 13.2 hands and up to 14.2 hands.

Miniature horses, for the PA 4-H Horse Program, can be up to 40 inches, but no taller.



## Identification Activities

### How Tall are You?

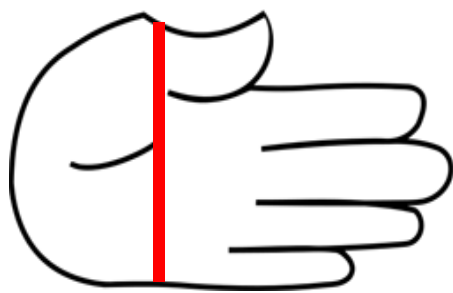
Using a tape measure or yardstick, find out how many inches tall you are. Then get help converting that into feet and into hands.

For hands: divide the inches by 4—i.e 48 inches divided by 4 = 12. So if you are 48 inches, you are 12 hands.

For feet: divide the inches by 12, because there are 12 inches in a foot. So, 48 divided by 12 = 4. If you are 48 inches, you are 4 feet tall.

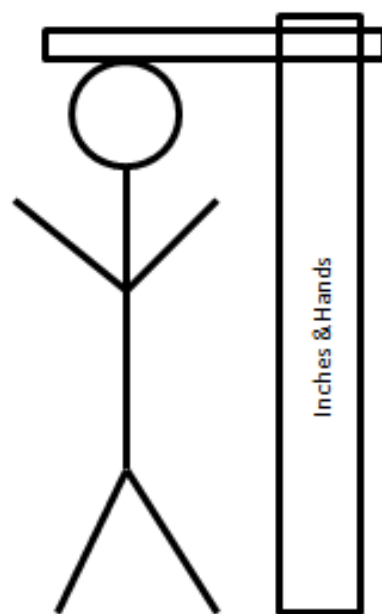
#### Questions:

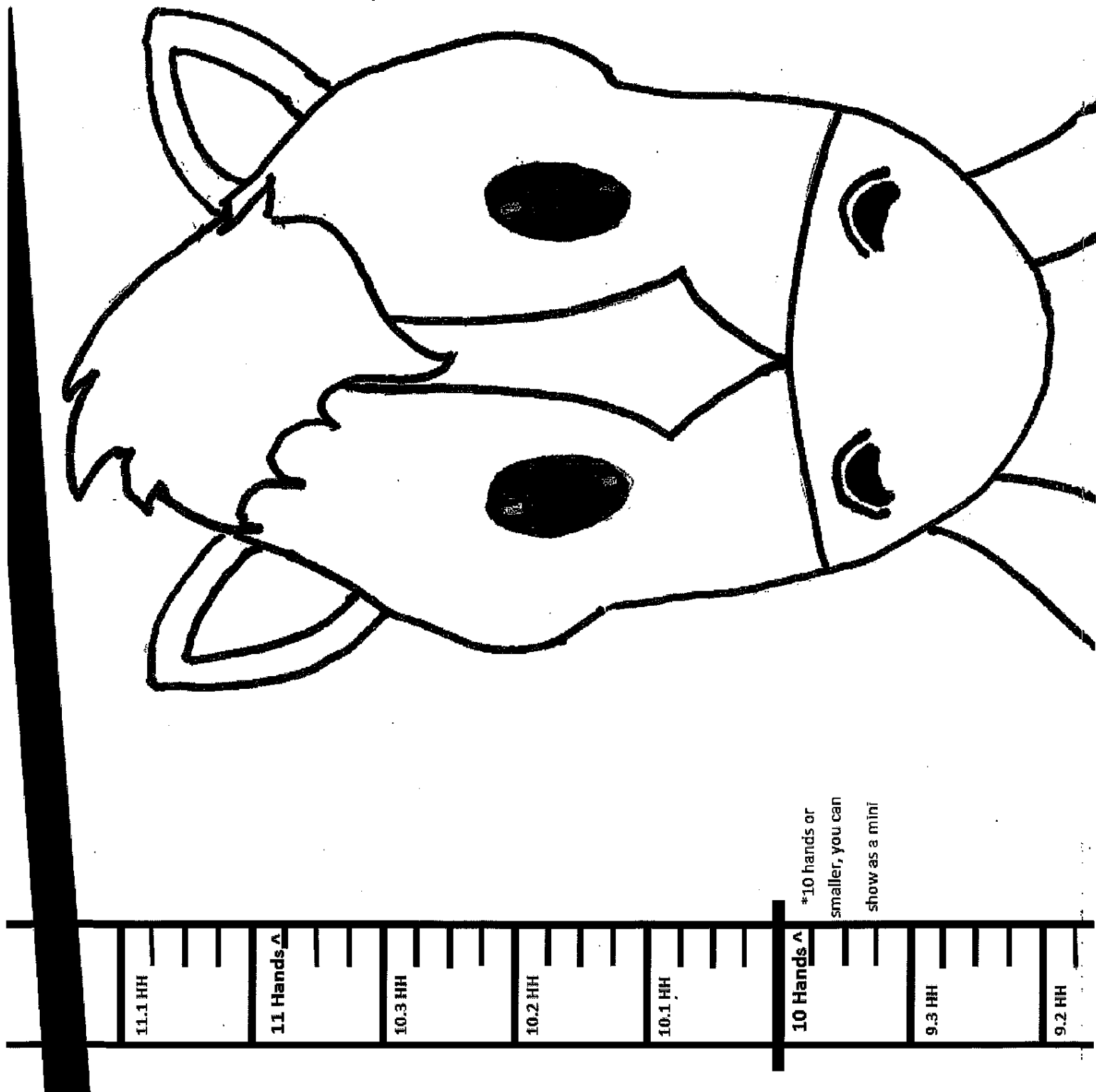
1. If you are 48 inches, are you a horse, pony, or mini?
2. If you are 6 feet tall, how many hands are you?
3. How many hands are you?



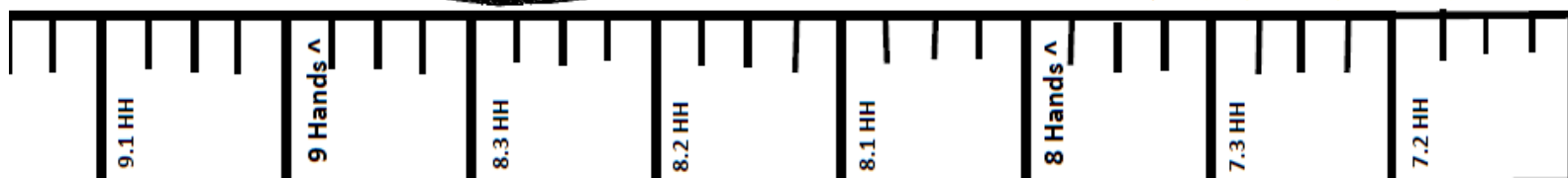
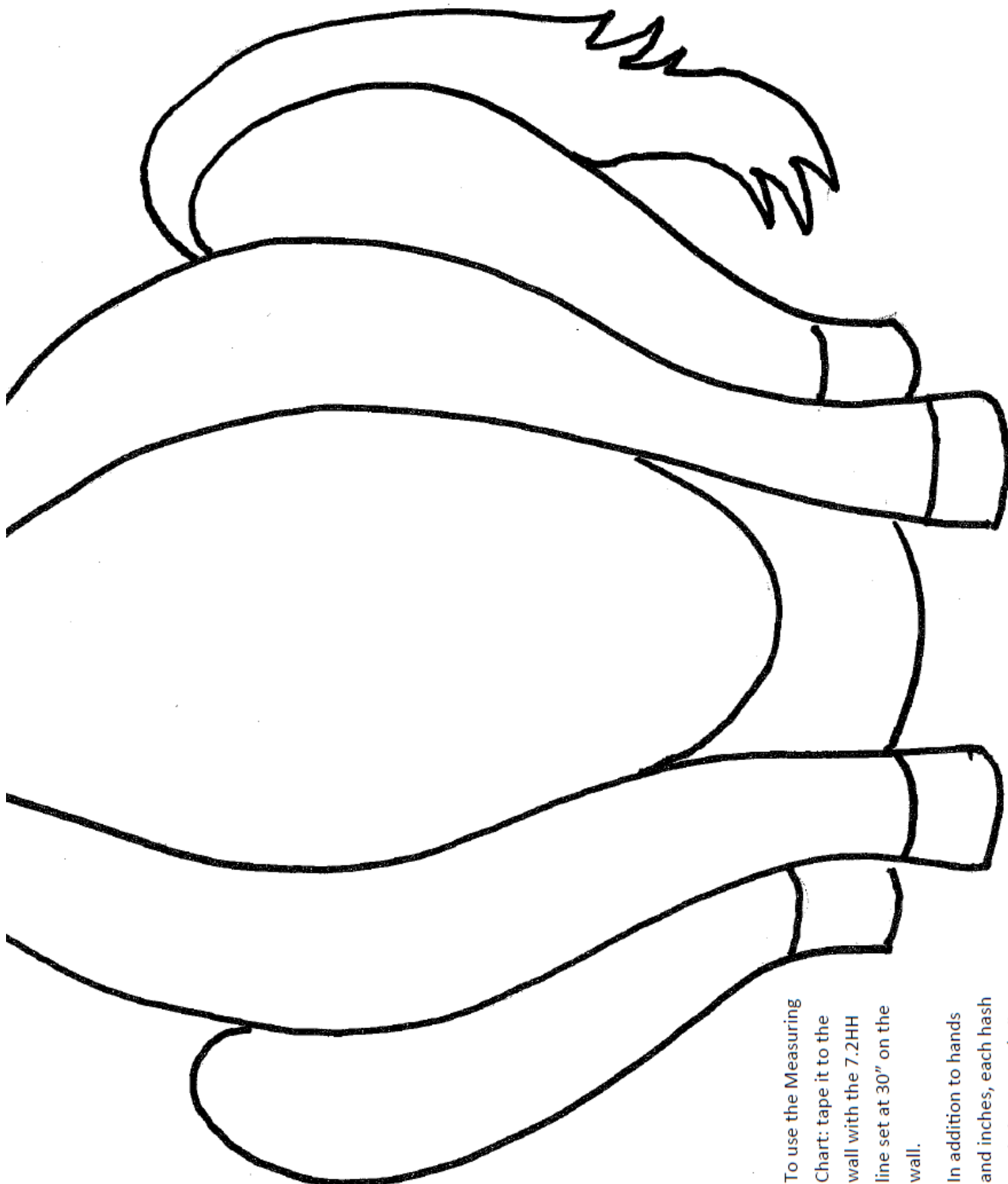
1 hand = 4 inches

### How tall are you?





This page is intentionally left blank for the measuring chart.



To use the Measuring Chart: tape it to the wall with the 7.2HH line set at 30" on the wall.

In addition to hands and inches, each hash mark denotes 1/4 " .

This page is intentionally left blank for the measuring chart.





# Horse Breeds & Uses

A breed is an animal group with many of the same characteristics. Ponies in a breed may have a similar appearance (conformation), hand height, and stride. They may also have similar color patterns and markings. All of these unique features play an important role in identification and breed registration.

## Pony and Miniature Horse Breeds & Uses

### Ponies

Ponies stand under 14.2 or 14 hands high and weigh from 500 to 900 pounds. There is a distinct conformation in ponies. They are of draft horse, heavy harness horse, saddle horse, or harness horse type.

### Miniature Horses

Miniature horses stand under 40 inches (34-38 inches). They are a small, well balanced horse that if all reference to size were eliminated, would have the same conformational proportions of other full sized light breeds.



"Chincoteague Ponies." *Chincoteague Ponies*.  
N.p., n.d. Web.

### Chincoteague/Assateague

- ♦ Originated in North America, live on the barrier island of Assateague in Maryland and Virginia
- ♦ 12 to 14.2 hands
- ♦ Made famous in Marguerite Henry's book Misty of Chincoteague
- ♦ Body colors can be any color, but most common is a very colorful pinto
- ♦ Ponies on the Virginian side are owned by the Chincoteague Volunteer Fire Department. Those on the Maryland side are owned by the Maryland Park Service. Each year the ponies in Virginia are swum across the channel; the foals are auctioned and the mares and stallions returned.

### Fun Fact

Light horse breeds can be considered a pony due to their height if they measure 14.2 hands and under.



AMERICAN HACKNEY HORSE SOCIETY. "The Hackney Pony." American Hackney Horse Society. N.p., n.d. Web.



Pony of the Americas Club. "The Breed." Pony of the Americas Club. N.p., n.d. Web.



Traci Yoder



"Pony Breeders of Shetland Association." Pony Breeders of Shetland Association. N.p., n.d. Web.

## Hackney

- ♦ Originated in Great Britain
- ♦ 14.2 hands and under
- ♦ Common colors are black, brown, bay and chestnut; there are even some spotted
- ♦ Have an extremely elegant appearance with a small head, delicate muzzle and well-shaped ears
- ♦ Has a natural, high-stepping gait
- ♦ Known for its tremendous trotting ability
- ♦ Popular driving pony

## Pony of the Americas (POA)

- ♦ Came from the state of Iowa
- ♦ Height should be no less 46 inches and not over 56 inches
- ♦ Was a cross between an Appaloosa and a Shetland pony
- ♦ Look like small Appaloosas
- ♦ Coat patterns vary widely and some ponies get additional color over time

## Quarter Pony

- ♦ Small scale replica of a Quarter type horse
- ♦ 14.2 hands and under
- ♦ Any color or coat pattern
- ♦ Can not be gaited

## Shetland

- ♦ Came from the Shetland Island of Great Britain
- ♦ 28 to 46 inches
- ♦ One of the smallest breeds of ponies
- ♦ Can be almost any color except spotted
- ♦ Sturdy legs and hooves, wide backs, and broad hindquarters
- ♦ Worked as "pit ponies" in the coal mines



Penn State Animal Sciences. "2015 PA 4-H Junior Horse Championship."  
2015 PA 4-H Junior Horse Championship. N.p., n.d. Web.



Penn State Animal Sciences. "2015 PA 4-H Junior Horse Championship."  
2015 PA 4-H Junior Horse Championship. N.p., n.d. Web.



## Welsh

- ◆ Came from Britain and Wales
- ◆ Larger than Shetland ponies
- ◆ Legs are lightly feathered
- ◆ Can be any color including roan and palomino, but not pinto or spotted
- ◆ Breed is divided into four sections: A, B, and C based on height/type
- ◆ Section D Cobs exceed 13.2 hands with no upper limit on height which would classify them as horse size in the PA 4-H Horse Program

## American Miniature Horse

- ◆ Imported into the United States in 1888
- ◆ Various colors, coat patterns, and types
- ◆ "Miniature" versions of well-balanced horses, possessing conformation characteristics found in most equine breeds

## Falabella

- ◆ Originated in Argentina
- ◆ Can be any color
- ◆ Must be under 34 inches, most mature in the 30 to 34 inch height range

History of the Falabella Miniature Horse Breed." *Falabella International Preservation Association*. N.p., n.d. Web.

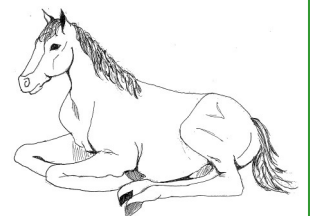
## Additional Pony Breeds

British/German Riding  
Dartmoor  
New Forest

Caspian  
Exmoor  
Icelandic

Connemara  
Fell

Dales  
Highland







## Breeds & Uses Activities

Unscramble the letters below to discover pony and miniature horse breeds!

1. Y E N H A C K

\_\_\_\_\_

2. W L E S H

\_\_\_\_\_

3. L L E F

\_\_\_\_\_

4. B E L L F A L L A

\_\_\_\_\_



### Pony Breeds Collage

Look in a horse magazine for pictures of different pony and miniature horse breeds. Cut out pictures of FOUR breeds and glue them below or on a separate piece of paper. Write the name of the breed of pony and/or miniature horse under each picture. Looking at the pictures, which breed do you like best?



# Horse Nutrition

## Why Water?

Horses need to drink 5-10 gallons of water each day just to keep their body functioning properly. It's important that horses have plenty of clean, fresh water available to them at all times. Water plays many important roles in the horse's body. It helps the horse keep its body at the right temperature, helps with digesting food the horse eats and helps get rid of waste the horse's body produces.

### Where does water come from?

Water is available on the earth in two forms - ground and surface water. Both ground and surface water comes from rain and snow that has melted. Groundwater is stored in open spaces underneath the ground. We use wells to access this water. Surface water is water that has found its way into rivers, lakes, and streams.

### Fun Fact

60% of a horse's body is made of water.

### All water tastes the same, right?



*Lisa Witmer, Penn State University*

Wrong! You may have noticed the water you drink at school tastes different than the water you drink at home. Just like you, horses can notice the different taste of the water at a show versus the water they drink at home. It's important your horse likes the taste of the water when you're away from home so that they drink enough to stay hydrated while you're away from home. Some horsemen bring water from home to offer their horses while they're away. Others will flavor the horse's water at home with Kool-Aid or Gatorade for a couple days before they

leave so he gets used to the flavor. While they're away from home, they'll flavor the new water as well to mask the different taste. Another way to encourage horses to drink is to add electrolytes to their feed.

Sometimes, your horse might not want to drink his water at home. If the horse's water has dirt or feed in it, it is not as tasty and he will drink less. That's why it's important to clean water buckets and tubs regularly! In the winter, it's important to watch for ice forming in horses' water buckets and tubs. The water on the top of the tub can turn to ice and horses can't reach the unfrozen water below without the ice being broken up. Sometimes the whole bucket freezes leaving with horses having no water at all! You can get special heaters from your local farm store to keep your horse's water from freezing.



*Lisa Witmer, Penn State University*

## What happens if my horse doesn't get enough water?

Water helps with food digestion. When horses chew up their food, they mix saliva with the food while their teeth tear it into tiny pieces. Without enough water, horses won't make as much saliva and their chewed up food will be too dry, which can lead to it getting stuck in the digestive tract, causing colic. Water also helps the horse get rid of waste its body creates from normal processes like digestion.

Dehydration is the biggest concern horses face if they do not drink enough water each day to stay well hydrated. One way to detect dehydration is through the skin pinch test. To do this, pinch the horse's skin along the neck in front of the shoulder. If the horse is well hydrated, the skin will return to normal in two seconds or less. If it takes longer than two seconds, the horse is most likely dehydrated. Some other signs of dehydration are:



*Lisa Witmer, Penn State University*

- ◆ Elevated heart rate
- ◆ Change in gum color from bubblegum pink to pale pink
- ◆ Dry gums
- ◆ Less saliva in their mouth
- ◆ Very dry manure or no manure at all
- ◆ Weakness

These symptoms aren't noticeable until the dehydration has gotten worse. In these cases, you will need to call your vet to help your horse.



## Nutrition Activity

### Which Water Would You Drink?

Have your project helper fill four cups: one with dirty water, one with salt water, one with ice and one with clean water. Think like a horse! Which would you prefer? Talk about the questions below with your helper.

1. Dirty Water—Would you drink this water? How does a horse's water get dirty? What can you do to make sure the water is clean?
2. Salt Water—Smell this water. How does a horse know if water is good to drink? What other smells might a horse find in water?
3. Ice Water—Can a horse drink the ice? Would a horse's water freeze? What do we need to do to horse's water buckets in the winter?
4. Which of the four cups of water would you drink? Why?



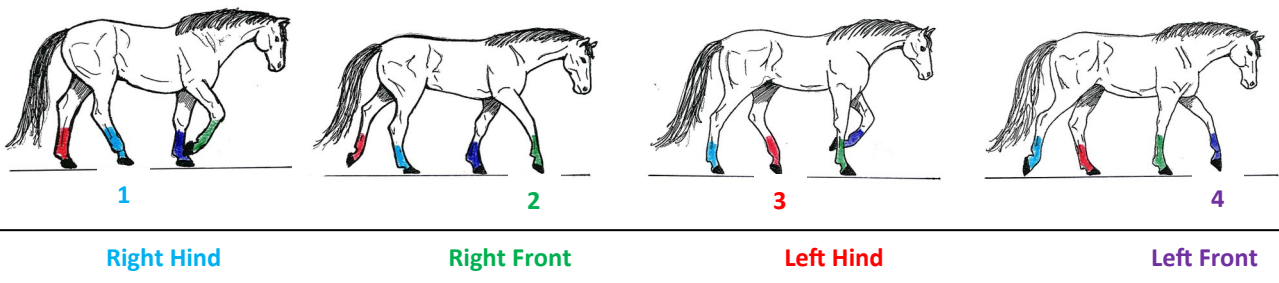
# Riding Styles & Tack

## Gaits

The movement of a horse's legs and hooves are called gaits. For most horses, the natural gaits are the walk, trot, canter and gallop. Let's learn about how each of these are different.

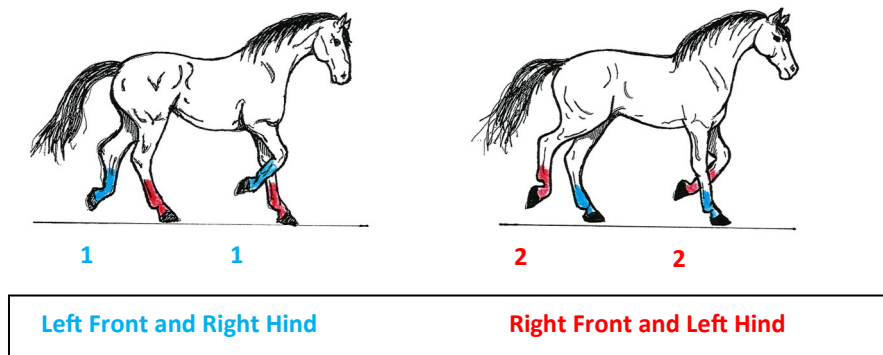
### Walk

The walk is a natural 4-beat movement. The horse always has two or three hooves on the ground. The walk is the slowest natural gait; it is the steadiest and most comfortable.



### Trot

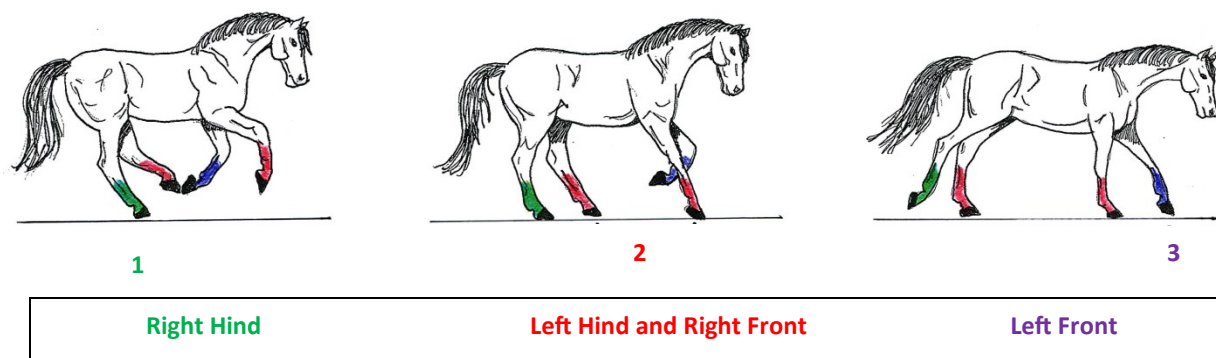
The trot is a steady 2-beat diagonal movement. The forefoot on one side and the hindfoot on the opposite side move together. They lift off at the same time and strike the ground at the same time. For English riders, we call this a trot. For western riders, we call this a jog. The movement is the same.



## Canter

The canter is a 3-beat movement. This gait is faster than a trot. This gait starts with the hind leg then the pair of the same side front leg and opposite hind leg, finishing with the last front leg. For western riders, we call this a lope. The movement is the same.

This gait has "leads" - a right lead and a left lead. The lead the horse is on is determined by the last front leg movement.



## Gallop

The gallop is a 4-beat movement. This gait is similar to the canter, but the horse's legs move one at a time. The second hind leg (2) hits the ground just slightly before the diagonal fore leg (3). The gallop feels just like a fast canter.

## Back

When a horse backs naturally, (not being asked by a rider or on a lead line) they perform a two beat diagonal gait. The back has a similar hoof pattern to that of the trot, only backwards. The footfall pattern of the back might be the right front moves with the left hind and the left front moves with the right hind.





### Gait Activities

Want to practice what you learned about gaits? Try some of these fun activities!

#### Horses In Motion

If you have access to a horse or horses, wrap the legs of the horse to help identify the movements. Then demonstrate each gait. See if the Cloverbuds can follow along.

#### Hoofbeats

Each gait has a different beat. Record hoof beats (or find them on the internet) and see if the members can count the beats and identify the gait.

#### Model Horses

Collect a bunch of model horses. See if you can identify the gaits of which the horse is moving based on the footfall of the model.

#### Stick Pony Show

Have a stick pony class using the correct gait calls: walk, trot/jog, canter, gallop, back, etc. This is a great way to teach leads!

#### Whoa—Gallop

No horses, no problem! Using the fundamentals of the game Red Light, Green Light, play a game using the commands of the gaits - whoa, jog, gallop, trot, etc.

#### Simon Says

This game is great for teaching gaits as well.



# Resources & References

Bickel, Bethany, Sterling Buist, Tammy Eichstadt, Andrea Kocher, Lew Trumble, and Donna Zang. Pennsylvania 4-H Horse Show Rule Book. State College: Pennsylvania State University, 2016. Print.

Comerford, Patricia M., Brian Egan, and Deb Webb. Pennsylvania 4-H Horse Safety Standards. N.p.: Pennsylvania State U, 2001. Print

Fetter, Jennifer R., and James Andrew Clark. "The Water We Drink (Water Quality)." Water Quality (Penn State Extension). Penn State Extension, n.d. Web. 07 Sept. 2016.

"Horse Height Measurement." *Horse Height Measurement*. ©Acorn Internet Ltd, n.d. Web. 13 Sept. 2016.

Kline, Robert C., Joy Ann. Fischer, Tim Bowman, and Mary Hoffelt. *Horses, Safety, and You: How to Work with and around a Horse Safely*. Columbus, OH: Ohio State U Extension, 2003. Print.

McKernan, Helene. "How Much Drinking Water Does Your Horse Need?" *Equine* (Penn State Extension). Penn State Extension Equine Team, 7 July 2012. Web. 12 May 2016.

Miller, Lucinda B. *Horseless Horse*. N.p.: Ohio State U, 1994. Print.

"NATURAL AND ARTIFICIAL GAITS OF THE HORSE." *NATURAL AND ARTIFICIAL GAITS OF THE HORSE*. My Horse University, Apr. 2011. Web. 07 Sept. 2016.

Sutor, Cheryl. "Horse Gaits: Walk, Trot, Canter and Gallop." *Equusite.com - Horse Gaits: Walk, Trot, Canter and Gallop*. Equusite.com, Feb. 1998. Web. 07 Sept. 2016.



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## **Acknowledgments:**

Prepared by Teri Antilley, Bethany Bickel, Andrea Kocher, Lori Little, Lew Trumble, and Lisa Witmer, in conjunction with Pennsylvania 4-H Science Team and the Pennsylvania 4-H Horse Program Development Committee.

Illustrations by Ashleigh Egan.



Proofread by Kelly Jedrzejewski.

Modified from 4-H Cloverbud Activity Book A; Kim Drolshagen, Michelle Grimm and Michelle Schroeder, University of Wisconsin-Extension, 2010.

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