



Horseless Horse Unit 2

Hooves, Health and Horsemanship

4-H MANUAL - Revised 12.2022



COLORADO STATE UNIVERSITY
EXTENSION

Project Goals and General Information

This project provides an opportunity for non-horse owning youth to acquire knowledge necessary to participate in horse-related 4-H events. By offering a unique curriculum that does not rely on live horses to be used as a tool for learning, more youth will have the opportunity to learn about these animals.

This project is intended to teach 4-H youth basic knowledge of horses, equipment and safety that do not have access to a horse. All of the questions in this project record should be answered as completely as possible. The information needed can be found in the Colorado 4-H Horse Manual. This publication is available at your county extension office. All the information used in the horseless horse units has been taken from the 4-H Horse Project Members Manual.

This 4-H project record will be scored out of 100 points based on neatness, completeness, accuracy and activities completed (meetings attended, demonstrations, and special events included).

The leader's signature should be obtained when the book is completed and ready to be turned-in for judging. Books will be graded by a qualified person and scored to a general standard.

We acknowledge the contributions of the following people to the 2004 curriculum:

Dr. Dennis Lamm, Professor, Extension Education

Dr. Sue Cummings, Extension Specialist

Alexa Lamm, 4-H Coordinator, Douglas County

Jonathan Vrabec, 4-H Agent, El Paso County

Colorado 4-H Horse Advisory Board, 2004

Revised in 2022 by:

Angela Mannick, Charity Cagle, Carmen Porter & Randi Hudson

Members of the Colorado 4-H State Horse Advisory Horseless Horse Subcommittee. Reviewed by Lisa Sholten, Extension State Program Specialist, 4-H Youth Development, Civic Engagement & Curriculum.



Past revision contributions by: Catherine Canter, Extension Education Graduate Student.

Angela Mannick, AHA, Youth and Family Programs, Marketing Coordinator.

Angela Mannick & Lori Kelly, Members of the Colorado 4-H State Advisory Horseless Horse Subcommittee.

Colorado State University, U.S Department of Agriculture and Colorado counties cooperating. To simplify technical terminology, trade names or products and equipment occasionally will be used. No endorsement of product names is intended nor is criticism implied of products not mentioned.

Colorado State University Extension is an equal opportunity provider. Colorado State University does not discriminate on the basis of disability and is committed to providing reasonable accommodations. CSU's Office of Engagement and Extension ensures meaningful access and equal opportunities to participate to individuals whose first language is not English. <https://col.st/0WMJA>

Colorado State University Extension es un proveedor que ofrece igualdad de oportunidades. Colorado State University no discrimina por motivos de discapacidad y se compromete a proporcionar adaptaciones razonables. Office of Engagement and Extension de CSU garantiza acceso significativo e igualdad de oportunidades para participar a las personas quienes su primer idioma no es el inglés. <https://col.st/0WMJA>

Leader Information

These pages are designed for the leader, parent, and adult volunteer or older youth working with the 4-H Horseless Horse project. Below you will find an explanation of the Targeting Life Skills Model as well as the Experiential Learning Process and how you can incorporate them into the unit while teaching horse-related subject matter.

Life skills are critical in helping young people become self-directing, productive, and contributing members of society. One of the primary goals of this project book is to help youth gain knowledge about horses. However, it is very important to emphasize the learning of “life skills” as well.

Head, heart, hands, and health are the foundations of 4-H. In the Targeting Life Skills Model (Figure 1), each of these foundations reflects a skill. Each “H” has two general categories of skills. The head is “managing and thinking,” the heart is “relating and caring,” the hands are “giving and working,” and the health is “living and being.” The categories are then divided into specific life skills.

This unit incorporates the Targeting Life Skills Model through the subject matter and activities. Youth are expected to use both the 4-H Horse Project Manual from Colorado along with the 4-H Cooperative Curriculum System Horse project booklets to find the answers. Each chapter is focused on a specific life skill listed below:

- Anatomy of the Hoof – teamwork
- Conformation and Movement – critical thinking
- Blemishes and Unsoundness – decision making
- Nutrition – healthy lifestyle choices
- Basic Health – personal safety and concern for others
- Western Tack – critical thinking
- English Tack – critical thinking
- Bits – communication
- Training Aids and Devices – problem solving
- Realities of Horse Ownership – critical thinking

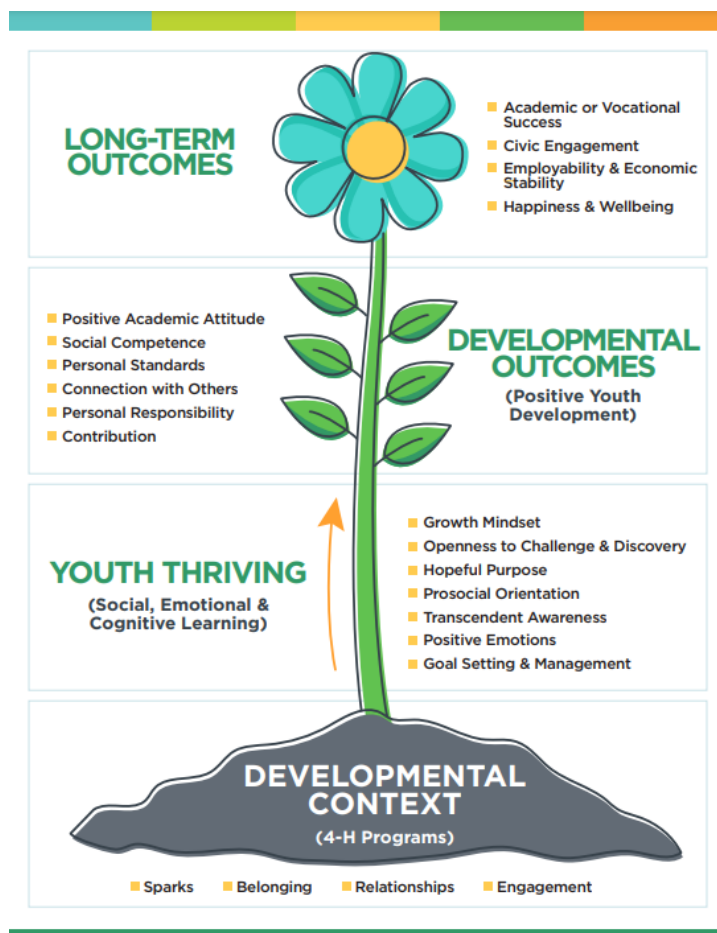
The Experiential Learning Process is also prevalent throughout Unit 2. The Experiential Learning Process (Figure 2) embraces a “learn by-doing” approach to 4-H and emphasizes exploration and critical thinking. The model includes five steps: *experience, share, process, generalize, and apply*. Not every step of the process is necessary for every activity and sometimes steps are combined. However, it is important each lesson embraces the three main processes *do, reflect, and apply*.

The Conformation and Movement section is a great example of this process. The youth give examples of conformation faults by drawing several examples. This pertains to the experience, or “do,” portion of the model. Youth are then asked to share this information with their group and identify differences in opinions. This is the “share” portion of the process. The next few questions take the youth outside of the horse specifics by asking them

to relate this situation to more worldly issues. They are then asked to explain how humans would compare. These questions are the “generalize” and “apply” part of the process. As the leader of your group, it is your job to emphasize life skill learning and this process while teaching youth about horses.

The 4-H Program Leaders’ Working Group developed the 4-H Thriving Model (figure to the right) to advance and support the accomplishment of the 4-H Youth Development 2025 National Strategic Plan. The 4-H Thriving Model illustrates the process of positive youth development in 4-H programs by connecting high quality program settings to the promotion of youth thriving.

High quality 4-H program settings provide youth a place to belong, matter and explore their personal spark. High quality settings foster developmental relationships with youth, relationships that express care, challenge growth, and share power. These components help ensure that 4-H programs provide a nourishing developmental context – a place where youth can belong and grow.



High quality 4-H programs contribute to Positive Youth Development (PYD) through the intentional promotion of social, emotional, cognitive, and behavioral habits of mind. In the 4-H Thriving Model this process of PYD is described by seven indicators of thriving: Openness to challenge and discover, growth mindset, hopeful purpose, pro-social orientation, transcendent awareness, positive emotionality and self-regulation through goal setting and management. Youth who experience high quality developmental settings in 4-H with an emphasis on these key social-emotional skills achieve key positive youth development outcomes, including academic motivation and success, social competence, high personal standards, connection with others, personal responsibility, and contribution to others through leadership and civic engagement.

Youth who achieve positive developmental outcomes are more likely to also achieve long-term outcomes marked by vocational or academic success, civic engagement, employability and economic stability and happiness and well-being. (Learn more at <https://helping-youth-thrive.extension.org/>.)

Figure 1 Targeting Life Skills Model

(Hendricks, P. (1998) "Developing Youth Curriculum Using the Targeting Life Skills Model" <http://www.extension.iastate.edu/4H/skls.eval.htm>)

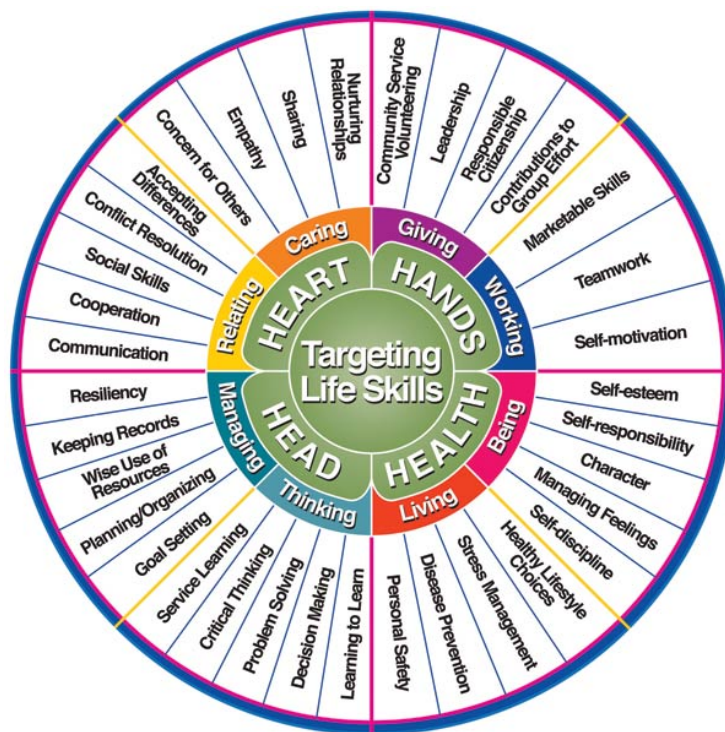


Figure 2 Experiential Learning Process

(University of Arkansas Cooperative Extension Service, 2005)

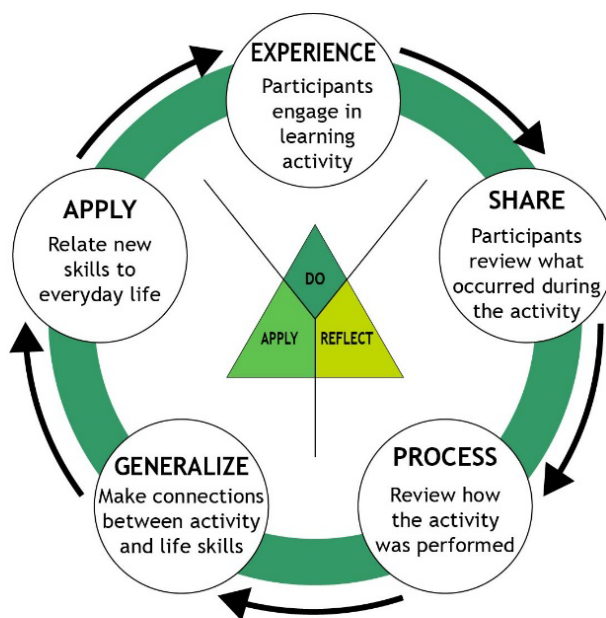
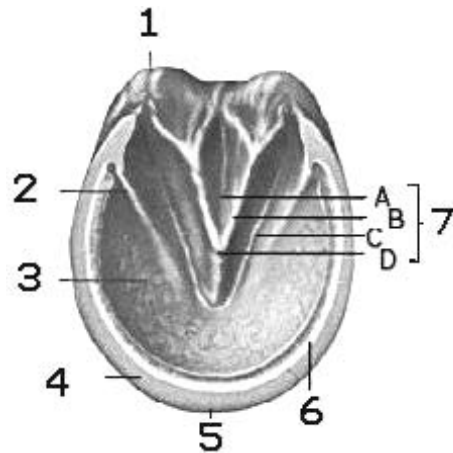


Table of Contents

Title Page	page 1
Project Goals and General Information	page 2
Leader Information	page 3
Table of Contents	page 6
Anatomy of the Hoof	page 7
Conformation and Movement	page 9
Blemishes and Unsoundness	page 15
Nutrition	page 17
Basic Health	page 20
Western Tack	page 24
English Tack	page 26
Bits	page 29
Training Aids and Devices	page 32
Realities of Horse Ownership	page 35

Anatomy of the Hoof



1. Fill in the appropriate term for the number.

(1) _____ (5) _____

(2) _____ (6) _____

(3) _____ (7) _____

(4) _____

2. There is more than one type of horseshoe. Check online or at your local feed/farm and ranch store for three different types of horseshoes and list them below.

(1) _____

(2) _____

(3) _____

3. How often should a horse have its hooves trimmed and why?

4. What part of your body is made from the same material as a horse's hoof? What is the material called?


5. Why do your fingernails and hair never stop growing?

Conformation and Movement

A horse that has good conformation will be well balanced, have good muscling and be structurally correct. A correctly built horse will remain sound for a wide variety of equine events. When judging horses, it is important to look at four different qualities:

- balance and quality – the overall appearance of the horse
- structural correctness – this describes the way a horse is put together
- breed and sex characteristics – a horse should look like the breed it is representing and possess the characteristics of the breed standard.
- muscling – a horse should be adequate in its muscling for its breed standard. A horse that has poor muscling will not be very athletic.

1. In the boxes provided, draw, and explain three examples of non-ideal front leg conformation fault.



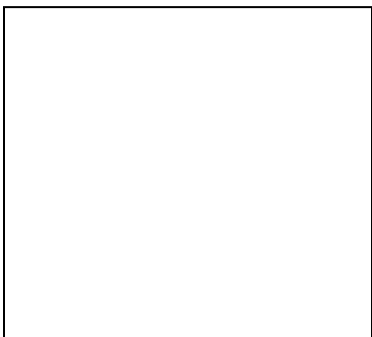
Name: _____

Explanation: _____



Name: _____

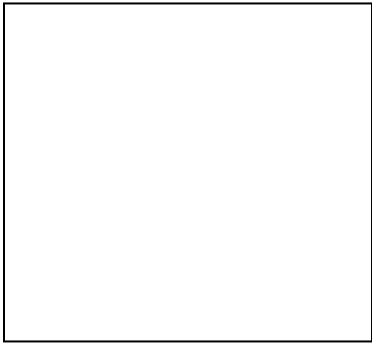
Explanation: _____



Name: _____

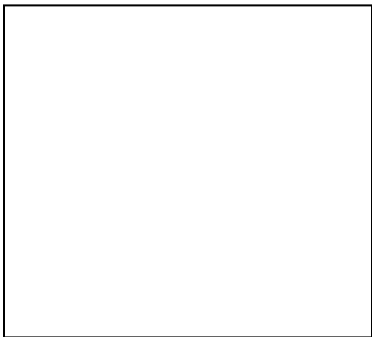
Explanation: _____

2. In the boxes provided, draw, and explain three examples of non-ideal hind leg conformation fault.



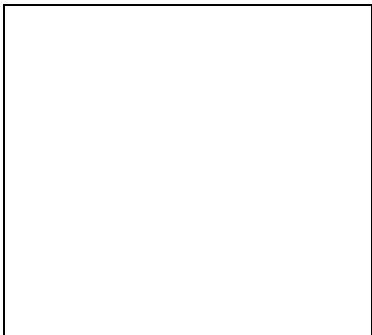
Name: _____

Explanation: _____



Name: _____

Explanation: _____



Name: _____

Explanation: _____

3. Share what you found with other members of your group.
4. How many different conformation faults were found? _____
5. List the other conformation faults members of your group found that you do not have listed above.

6. Could a horse's movement be affected by conformation? _____.
Give three examples.

- (1) _____

- (2) _____

- (3) _____

7. Can certain conformation faults aid a horse in its performance in certain disciplines?

8. How does the angle of the shoulder affect the overall balance of the horse?

9. How can balance affect movement?

10. How can a horse's muscling, or lack of muscling, affect their movement?

11. How would a crooked leg affect you?

If a horse does not have perfect leg conformation, they can still be useful and perform many different tasks. The effect of conformation on usefulness depends on the severity of the problem. No horse is perfect. With leg protection, horses can be utilized while minimizing their chances of injury. There are several types of leg protection available that can protect horses with conformation flaws.

Splint Boots – This type of leg protection provides support to the cannon bones of the front or hind legs. They also prevent the inside of the cannon from being struck by a hoof. The boots are usually made of neoprene or leather and close using Velcro or buckles.



Bell Boots – Bell boots provide protection to the coronary band of the horse. They also prevent shoes from being pulled off by overreaching or sidestepping. Bell boots are usually made of rubber or neoprene and can be solid or have Velcro closures.



Polo Wraps – These are long fleece, cotton or felt bandages that are wrapped around a horse's leg to support the tendons and ligaments and to provide protection to the cannon bones. Wraps are always wrapped from the outside in to prevent bowed tendons.



Skid Boots – These boots are made of leather or neoprene and protect a horse's fetlocks when stopping; they are used mostly on reining horses.



1. Name the type of leg protection you might select if you were teaching your horse how to side pass over a log. Why would you select this type of leg protection?

2. Name the type of leg protection you might select if you were teaching your horse how to do a sliding stop for reining. Why would you select this type of leg protection?

3. Name another type of leg protection you might use on your horse other than those listed above? How does it protect your horse's legs?

Blemishes and Unsoundness

1. For the following blemishes and unsoundnesses, identify where they would be located on the horse and specify if each is a blemish, unsoundness or could be both.

Wind Puff

Splint

Thoroughpin

Capped Hock

Poll Evil

Saddle Sore

Hernia

Bog Spavin

Ring Bone

Sweeney

2. If you had to choose between a horse with a blemish or a horse with an unsoundness, which one would you choose and why?

3. Blemishes can decrease the value of certain objects. Name five things that would lose some value due to a blemish.

- (1)

- (2)

- (3)

- (4)

- (5)

Nutrition

1. A horse requires six types of nutrients. List them below.

- (1) _____
- (2) _____
- (3) _____
- (4) _____
- (5) _____
- (6) _____

2. What would happen if a horse was deficient in protein?

3. How many gallons of water does a horse consume in one day? _____

4. How can you tell if your horse is drinking enough water?

Converting gallons into other units:

1 gallon = 4 quarts

1 quart = 2 pints

1 pint = 2 cups

5. How many cups of water does your horse drink if it consumes 10 gallons of water a day?

10 gallons = _____ quarts

_____ quarts x 2 = _____ pints

_____ pints x 2 = _____ cups

6. What are some good feeding practices we should actively practice?

7. What are the differences between concentrates and roughages?

- (1) _____
- (2) _____
- (3) _____
- (4) _____
- (5) _____

-

-
- This image shows a blank sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

Basic Health

1. Explain the following vital signs of the horse.

Temperature _____

Respiration rate _____

Pulse _____

2. What does capillary refill time measure?

3. Explain how you would perform this test?

4. With another member of your group, pretend a horse is colicing. One person plays the horse owner and describes the symptoms, while the other person pretends to be a vet and explains what to do for the horse.

5. Explain the symptoms:

6. What would you do for a colicing horse?

7. What are the average temperatures for three other animals? What is your average temperature?

Animals

(1)	_____	Average Temperature	_____
(2)	_____	Average Temperature	_____
(3)	_____	Average Temperature	_____
(4)	Human	Average Temperature	_____

8. Why are the average temperatures all different? Look online to see if you can find out why!

9. What would you need to have in a First Aid kit for horses? Include an explanation of what each item included would be used for.

10. What items did you include that you would not necessarily have in a First Aid kit for humans? Why?

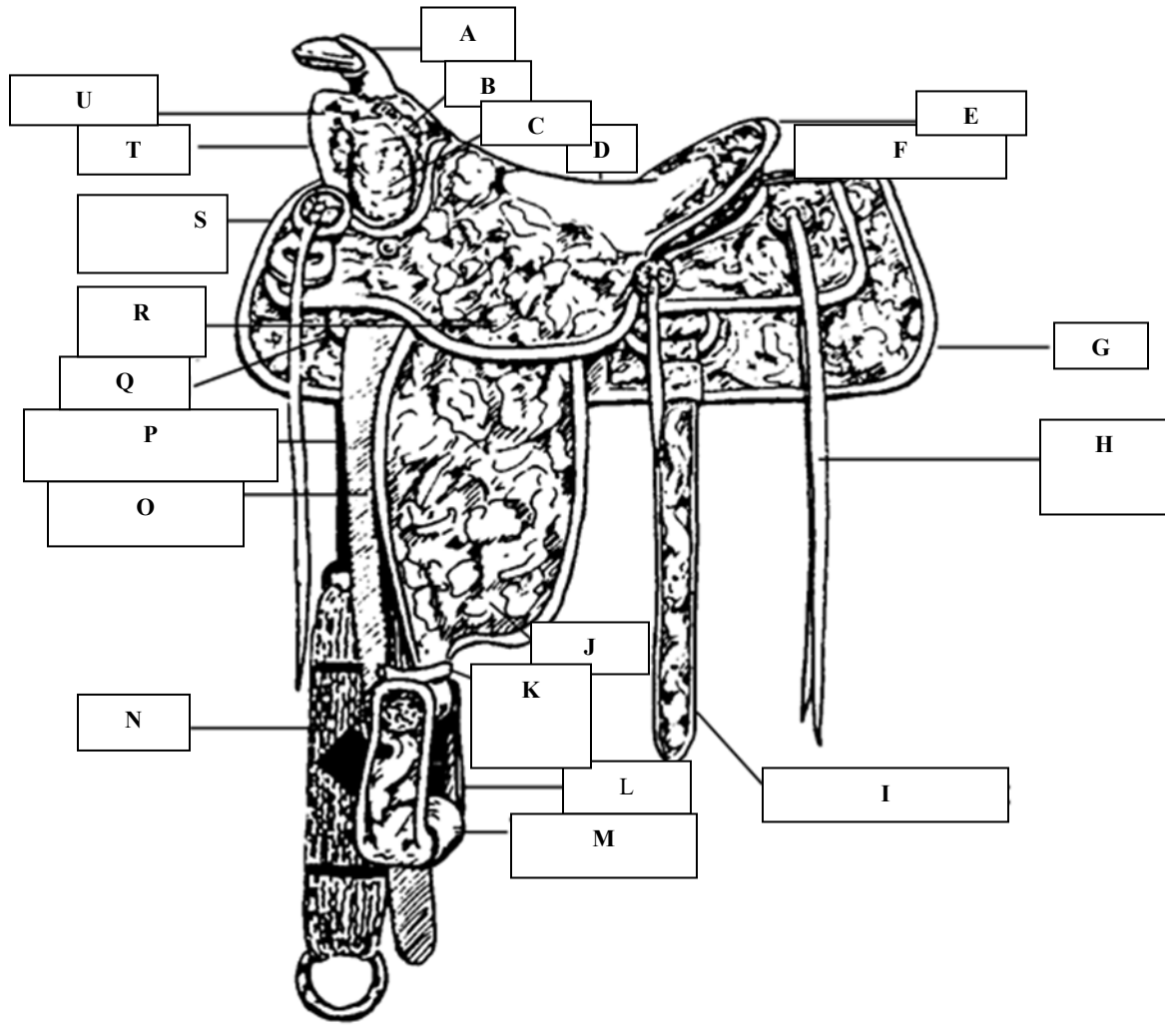
11. Give two examples of how you or someone you know have used first aid to help people?

(1) _____

(2) _____

Western Tack

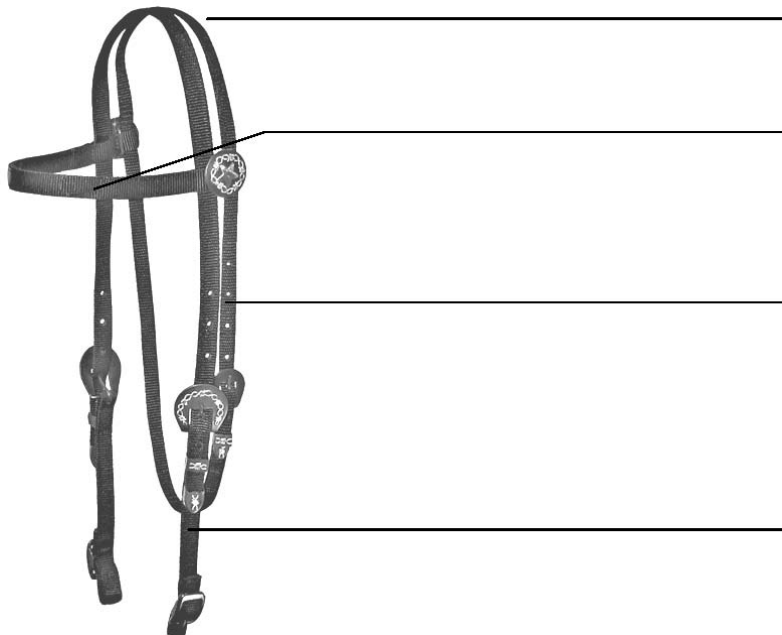
1. Label the following parts of the western saddle. On the designated line, explain what each part is for or what it does.



- A. _____
- B. _____
- C. _____
- D. _____
- E. _____
- F. _____

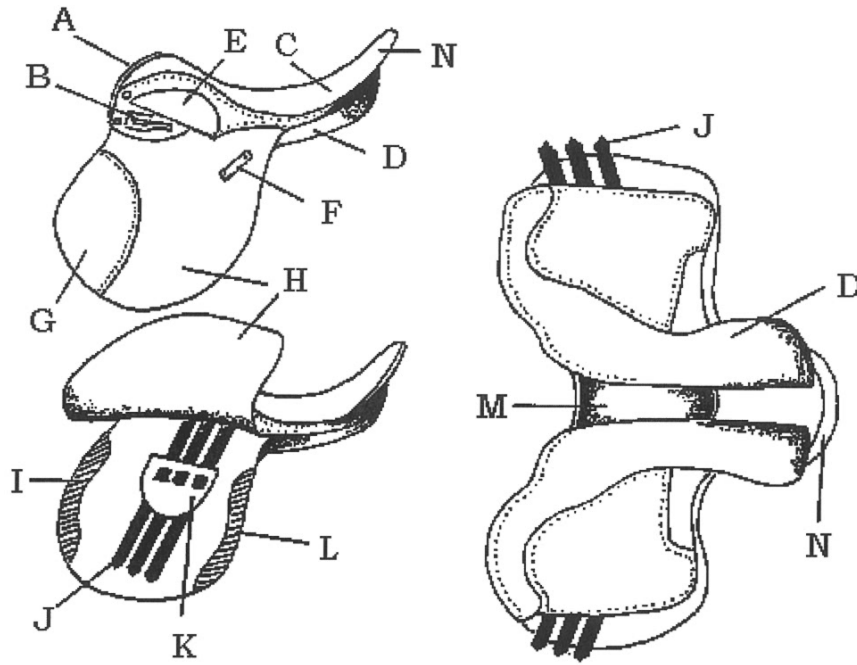
- G. _____
- H. _____
- I. _____
- J. _____
- K. _____
- L. _____
- M. _____
- N. _____
- O. _____
- P. _____
- Q. _____
- R. _____
- S. _____
- T. _____
- U. _____

2. Label the parts of a western headstall. On the designated line, explain what each part is for or what it does?



English Tack

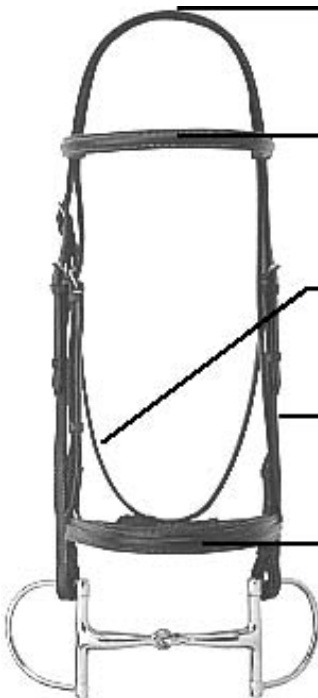
1. Label the parts of the saddle. On the designated line, explain what each part is for or what it does.



- A. _____
- B. _____
- C. _____
- D. _____
- E. _____
- F. _____
- G. _____
- H. _____

- I. _____
- J. _____
- K. _____
- L. _____
- M. _____
- N. _____

2. Label the parts of the English headstall. On the designated line, explain what each part is and what it does.



Tack is equipment that people use to help them ride a horse.

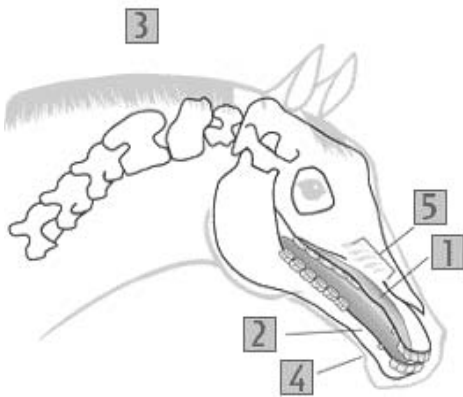
3. Give an example of a job that requires the use of equipment to make the job easier. Explain the equipment as well as how it is used.

4. What do you use to make a job you perform easier? Why do you use it?

Bits

Bits are an important communication tool used between horse and rider. It is important to know the correct use of every bit that you use and how that bit will affect the horse you are riding. Bits apply pressure to several points in a horse's mouth. Each point causes a different reaction from the horse. The pressure points are bars of the mouth, tongue, pallet, poll, and the chin.

1. Fill in the pressure point based on its description.

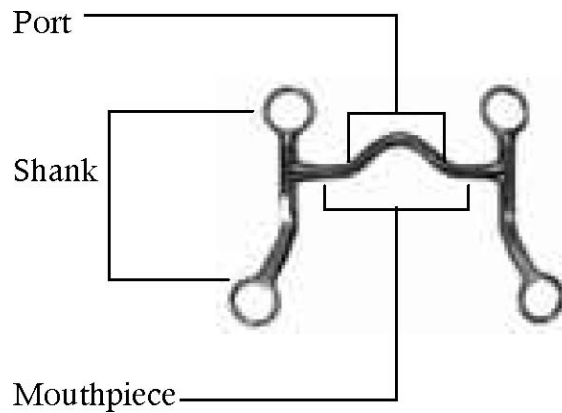


1. _____ is where the mouthpiece rests in the mouth; pressure and relief give the bit the most control here.
2. _____ are where the horse has no teeth, and the bit rests on these.
3. _____ receives pressure from the headstall; this is where the horse lowers its head.
4. _____ or _____ is where the curb strap rests.
5. _____ is the roof of the mouth; bits with ports can affect this area.

Snaffle bits are used when training a horse. Snaffle bits all have common features which include a mouthpiece that is jointed or straight with a ring at each end to which the reins are attached. There are many different types of snaffles. The mildest have smooth mouthpieces, and stronger snaffles can be made from twisted wire. It is important to remember that a snaffle bit can be severe in the wrong hands.



The other type of bit is a curb or shank bit. It applies pressure to the poll, bars, and mouth with less contact than a snaffle bit. This contact allows the rider to ride with only one hand and use indirect cues. A shank bit can have many different mouthpieces, including a broken one like the snaffle, and can be mild to severe depending on the style.



2. With the help of other members of your group, cut out or draw examples of three snaffle and three shank bits. Explain below to your group how each bit would work in a horse's mouth and what type of riding you would use the bit for.

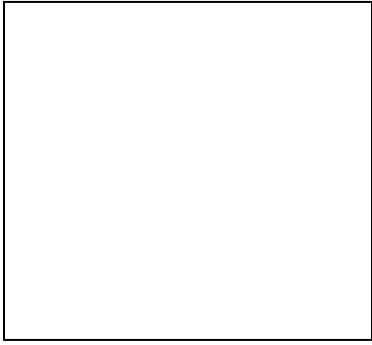
Snaffle:



(1)

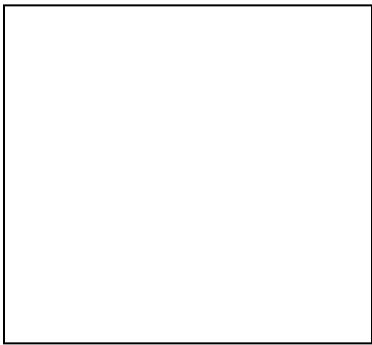


(2)

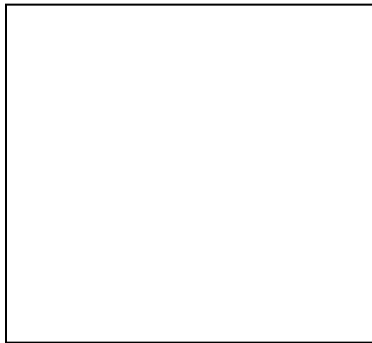


(3)

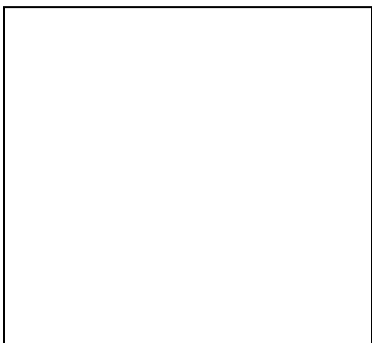
Shank:



(1)



(2)



(3)

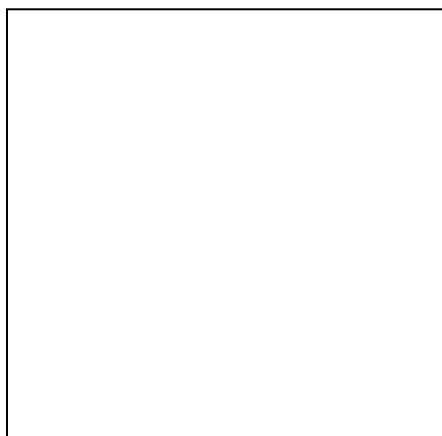
Training Aids and Devices

Training aids are used to encourage a horse to do something that it does not know how to do or to improve upon a skill that is not yet perfected.

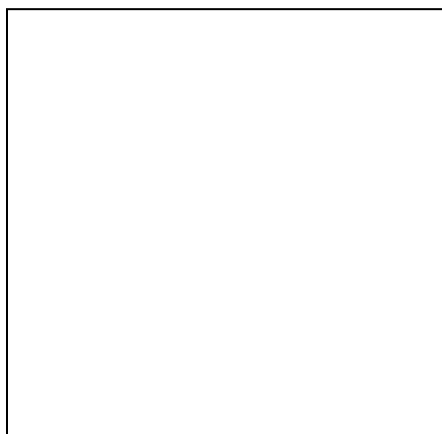
There are many different types of training aids available to you when working with horses. It is important to remember that these aids have a purpose and should never be used to do harm to or force a horse to accomplish a task. Do not use a training aid unless you have been shown how to correctly fit and use it for its intended purpose.

1. Below are a few examples of common training aids. Find a picture of each of these aids and paste them to the page below. Explain next to the picture what the aid should be used for.

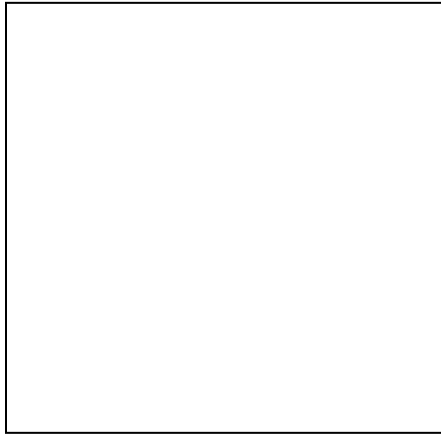
Tie Down or Martingale



Draw Reins



Side Reins



2. Describe two additional training aids and how they work. Share the training aids you found with other members of your group.

(1)

(2)

3. Give an example of how a training aid could be used incorrectly.

4. Why is it important that you don't misuse a training aid?

5. Give an example of another sport that uses training devices to help an athlete improve. What are some of the devices they use?

6. Describe a situation where you used a tool or device to help you improve.

Realities of Horse Ownership

Imagine that you bought your first horse. Using the following chart, make a list of the grooming supplies, tack and accessories needed for a horse. Be sure to include the prices of each item. List other costs associated with owning a horse on an annual basis (feed, hay, board, farrier, etc.). You may need to call or stop by your local feed store to help with pricing and information. Total the cost at the bottom of the page. Use the back of the sheet if necessary.

Item	Price

