

Lesson B2–5

Exploring the Equine Industry

Unit B. Animal Science and the Industry

Problem Area 2. Identifying and Understanding the Segments of the Animal Science Industry

Lesson 5. Exploring the Equine Industry

New Mexico Content Standard:

Pathway Strand: Animal Systems

Standard: I: Apply knowledge of anatomy and physiology to produce and/or manage animals in a domesticated or natural environment.

Benchmark: I-A. Use classification systems to explain basic functions of animal anatomy and physiology.

Performance Standard: 1. Describe functional difference in animal structures and body systems. 2. Classify animals according to anatomy and physiology.

Student Learning Objectives. Instruction in this lesson should result in students achieving the following objectives:

1. Identify equine terminology.
2. Discuss equine marketing options and economic importance.
3. Explain selection of superior animals.
4. List necessary equipment, supplies, and facilities for proper care of equine.
5. Describe characteristics of horse breeds.
6. Understand basic riding and safety concerns.

List of Resources. The following resources may be useful in teaching this lesson:

Recommended Resources. One of the following resources should be selected to accompany the lesson:

Ensminger, M. E., *The Stockman's Handbook*. Danville, Illinois: Interstate Publishers, Inc. 1992

Lee, Jasper S. *Introduction to Livestock and Companion Animals 2nd Edition*. Danville, Illinois: Interstate Publishers, Inc. 2000 (Textbook and Activity Manual Chapter 13)

Ensminger, M. E., *Animal Science*. Danville, Illinois: Interstate Publishers, Inc. 1991

Cooper, Elmer L., Burton, DeVere L., *Agriscience Fundamentals and Applications*. Albany, New York: Delmar. 2002 (Textbook Unit 31)

Other Resources. The following resources will be useful to students and teachers:

Internet keywords: equine, horse, farrier, gait, pony, and stallion.

List of Equipment, Tools, Supplies, and Facilities

Writing surface

Overhead projector

Transparencies from attached masters

Copies of student lab sheets

Terms. The following terms are presented in this lesson (shown in bold italics):

Bridle

Colt

Draft horse

Filly

Foal

Gelding

Hand

Light horse

Mare

Overo

Pony

Saddle

Stallion

Stud horse

Interest Approach. Use an interest approach that will prepare the students for the lesson. Teachers often develop approaches for their unique class and student situations. A possible approach is included here.

Bring a saddle (Western or English) into the classroom and mount it on a bale of straw or hay. Allow students to sit in the saddle and put their feet in the stirrups. Discuss what it is like to actually be on a horse by encouraging students to tell personal stories about previous horse experiences.

Summary of Content and Teaching Strategies

Objective 1: Identify equine terminology.

Anticipated Problem: What are some terms you may need to know to understand horses?

- I. There are many specific terms used to describe horses, horse types, and horse equipment.
 - A. Horses are also referred to as equine. Horses, ponies, donkeys, and mules are all members of the horse family. Based on size, there are three classes of horses. The height and weight of a horse determines what class the horse is in. In horses, the height is the distance from the ground to the highest point of the withers. There is a unique measurement for horses called a hand. A **hand** is 4 inches or 10.2 centimeters. A **light horse** is used for riding or racing, stands 14.2 to 17 hands high, and weighs between 900 and 1,400 pounds. **Pony** is the name describing horses under 14.2 hands tall that weigh between 500 and 900 pounds. A **draft horse** is used for work, stands 14.2 to 17.2 hands tall, and weighs over 1,400 pounds.
 - B. There are many terms used to describe horses because of their specific age or gender. A **filly** is a Thoroughbred under four years old or any other kind of horse under three years old. A **stud horse** is a male that is kept for breeding. A horse of either gender that has not been weaned is called a **foal**. A male that has been castrated before reaching sexual maturity is called a **gelding**. A mature female is referred to as a **mare**. A mature male is called a **stallion**. A male horse that is not mature is called a **colt**.
 - C. Horses have many proper names for their parts that you should know to help you discuss the animal properly.

Use TM: B2–5A as an overhead to discuss horse terminology. Have students take notes on the material.

Objective 2: Discuss equine marketing options and economic importance.

Anticipated Problem: How are horses important to the economy?

- II. It is estimated that there are over 12 million horses in the U.S. Years ago draft horses, oxen, and cattle were important because they were used for work purposes. Today riding horses are more common because tractors and other machinery have replaced horses in the fields. Horses have become primarily used for companionship, racing, riding, and breeding.
- A. Racing horses is a very popular spectator sport. Billions of dollars are spent every year by horse owners trying to purchase the best race horses. Money is also spent by spectators trying to win large purses, some over a million dollars.
 - B. Horseback riding is popular with outdoor enthusiasts and is also used as therapy for healing certain injuries. Some large ranches still ride horses to monitor and round-up cattle.
 - C. Horse breeders constantly work to improve bloodlines. They have thousands of shows every year, from small local events to large national events. Breeding farms breed mares to sell the offspring for racing or shows.
 - D. Horses are also used as companion animals. They make good pets and can give owners a large sense of accomplishment through training.

Use TM: B2–5B as an overhead or handout to discuss uses of horses.

Objective 3: Explain selection of superior animals.

Anticipated Problem: How do I know what horse to buy and where to get it?

- III. There are several uses for horses including shows, races, working, pleasure riding, and breeding. It is important to remember that no horse can be used for all of these. Age, sex, breed, color, conformation, markings, and previous training are some of the major things to consider. You may also want to consider your own intentions, facilities, and how much you want to invest. Once you decide what kind of horse is best, you can purchase one from breeders, private owners, dealers, and auctions.
- A. Age of a horse is important to consider because inexperienced riders may have problems with young animals that require training. It is not safe to buy a horse that the rider can't handle. Horses up to 12 years old are considered to be in the prime of their life.
 - B. Sex of the animal is necessary to consider because stallions are often harder to control and may not be suited for inexperienced owners. Your intended use of the animal is the most important consideration. Disposition varies from horse to horse, but geldings tend to be docile and mares are usually less gentle.
 - C. When determining what breed of horse to purchase, research the breed to decide if it is best suited to your intentions. You may also consider if buying a registered or unregistered horse is best for you. It may be initially cheaper to buy an unregistered horse, but the resale of a registered animal is usually greater.

- D. Horses are described with five basic colors: bay, white, chestnut, black, and brown. There are also five variations in horse colors: dun, gray, roan, pinto, and palomino.
- E. Conformation of the feet and legs is important to consider because they influence the way a horse moves and how long it will be useful.

Use TM: B2–5C as an overhead or handout to discuss horse colors.

Objective 4: List necessary equipment, supplies, and facilities for proper care of equine.

Anticipated Problem: What will I need to have to care for my horse?

- IV. You will need housing, feed, feeding equipment, grooming equipment, saddles and bridles for your horses. Your time and dedication is also necessary for proper care of horses.
 - A. Housing for horses must protect the animals from sun, wind, excessive cold, and other weather. Horse barns should have stalls that are at least 10 × 12 foot. They should also have enough room for your feed and equipment. It is important to keep stalls secure, clean, and dry. In addition to housing, horses need access to open spaces where they can get daily exercise.
 - B. Feed and feed equipment is important to your horses. You will need hay and grain to feed to your animals. Minerals and vitamins should also be fed for proper growth and development. When feeding hay and grain, use hayracks, pails, or other equipment that stays above the ground. Watering buckets or automatic waterers are also needed. Do not use equipment that allows horses to drink too much water at one time.
 - C. Since horses need to be groomed often, it is a good idea to buy high quality grooming equipment. Equipment for horses is called **tack**. Some items you will need include a hoof pick, mane and tail comb, body brush, bathing supplies, and a halter.
 - D. A **saddle** is a padded leather seat placed on a horse for the rider to sit on. There are two types of saddles: Western and English. A saddle is not required for riding, but only very experienced riders should attempt bareback riding. A bridle is also needed to ride a horse. A **bridle** is a part of the harness placed on the horse's head and is for controlling and guiding the horse.

Use TM: B2–5D to discuss parts of a Western saddle.

Objective 5: Describe characteristics of horse breeds.

Anticipated Problem: What are the characteristics of common horse breeds?

- V. All breeds have an association that registers purebred horses. If you need more information on any breed, contact the association for help. There are dozens of breeds that come in all colors and sizes. Here are descriptions of some of the most popular breeds:
 - A. Used by the early cowboys and the Plains Indians years ago and then faded, the American Paint has become popular again in recent years. Paint refers to spotted or two-tone

horses. Paint horses are used for racing, shows, pleasure, and stock purposes. Paint horses have two color patterns called tobiano and overo. **Tobiano** horses have white legs below the knees and hocks, regular spots, and their heads are marked like a solid-colored horse. **Overo** horses have variable head markings, one or more leg that is dark colored, and scattered body markings.

- B. The Arabian horse obtained its name from originating in Arabia. It is 850 to 1,100 pounds at maturity and can be bay, gray, chestnut, and occasionally black or white. Arabians are used for pleasure, racing, and showing.
- C. The Quarter Horse originated in the U.S. during the colonial era, when racing was common. The horse was named for the short stretches they raced and was used frequently by western ranchers. The Quarter Horse can be black, brown, bay, sorrel, dun, chestnut, buckskin, gray, roan, and grullo. The breed is used for riding, showing, racing, and as stock horses.
- D. The Belgian is a draft horse that originated in Belgium and is usually bay, chestnut, and roan. It is 15.2 to 17 hands tall and weighs from 1,900 to 2,200 pounds at maturity. Few draft horses exist in comparison to other breeds because they are mainly used for their power and have been replaced by tractors and other machinery.
- E. The Clydesdale originated in Scotland and is mainly bay and brown with white markings. The Clydesdale is smaller than other breeds of draft horses. It averages 16 to 17 hands tall and 1,700 to 1,900 pounds at maturity.

Use TM: B2–5E to show pictures of some popular horse breeds.

Objective 6: Understand basic riding and safety concerns.

Anticipated Problem: What are riding and safety concerns?

- VI. Riding is a good form of exercise that is very enjoyable. By understanding the behavior of horses and providing proper training to the horse and rider, riding will be safe and fun.
 - A. Don't startle or scare a horse and always approach a horse from the front left side.
 - B. Remember that you always should keep your horse under control, but should discipline the animal in a humane fashion.
 - C. Your horse always needs to know your intentions so that it knows what it is supposed to do.
 - D. Never tease an animal and always be calm and gentle with it. Always wear clothing that will protect you in case the horse does become frightened and reacts.
 - E. Walk beside the horse when leading it, mount the horse from the left side, and take extra care when strangers are near.
 - F. When new horses are introduced, take precautions so they do not fight.
 - G. Slow down when riding in areas that could injure the horse. If the conditions are excessively rough, get off the horse and walk it.

- H. Spend enough time training and exercising the horse so you know your horse's temperament and so the horse will be in good shape.

Use TM: B2–5F to show students how to properly mount a horse. LS: B2–5A is a good lab to use on a shortened period day or right before a long break.

Review/Summary. Use the student learning objectives to summarize the lesson. Have students explain the content associated with each objective. Student responses can be used to determine which objectives need to be reviewed or retaught using a different approach. Questions provided in the recommended textbooks may also be used to help review.

Application. Application can involve student activity with the provided labs.

Evaluation. Evaluation should focus on student achievement of the objectives for each lesson. Various techniques can be used, such as performance, on the application activities. A sample written test is attached.

Answers to Sample Test:

Part One: Matching

1 = c, 2 = d, 3 = a, 4 = g, 5 = h, 6 = b, 7 = f, 8 = e

Part Two: Completion

1. filly
2. gelding
3. mare
4. colt
5. Tobiano
6. Overo
7. foal

Part Three: Short Answer

Any five of the following answers are correct:

Don't startle or scare a horse and always approach a horse from the front left side.

Remember that you always should keep your horse under control, but should discipline the animal in a humane fashion.

Your horse always needs to know your intentions so that it knows what it is supposed to do.

Never tease an animal and always be calm and gentle with them. Always wear clothing that will protect you in case the horse does become frightened and reacts.

Walk beside the horse when leading it, mount the horse from the left side, and take extra care when strangers are near.

When new horses are introduced, take precautions so they do not fight.

Slow down when riding in areas that could injure the horse. If the conditions are excessively rough, get off of the horse and walk it.

Spend enough time training and exercising the horse so you know your horse's temperament and so the horse will be in good shape.

Test

Lesson B2–5: Exploring the Equine Industry

Part One: Matching

Instructions. Match the term with the correct response. Write the letter of the term by the definition.

- | | | |
|----------------|----------------|---------|
| a. Bridle | d. Draft horse | g. Hand |
| b. Light horse | e. Pony | h. Tack |
| c. Stallion | f. Stud horse | |

- _____ 1. A mature male horse.
- _____ 2. Used for work, stands 14.2 to 17.2 hands tall and weighs over 1,400 pounds.
- _____ 3. A part of the harness placed on the horse's head for controlling and guiding the horse.
- _____ 4. A unique measurement for horses that is 4 inches or 10.2 centimeters.
- _____ 5. Equipment for horses.
- _____ 6. Used for riding or racing, stands 14.2 to 17 hands high and weighs between 900 and 1,400 pounds.
- _____ 7. A male that is kept for breeding.
- _____ 8. A horse under 14.2 hands tall that weighs between 500 and 900 pounds.

Part Two: Completion

Instructions. Provide the word or words to complete the following statements.

1. A _____ is a Thoroughbred under four years old or any other kind of horse under three years old.
2. A male that has been castrated before reaching sexual maturity is called a _____.
3. A mature female horse is referred to as a _____.
4. A male horse that is not mature is called a _____.
5. _____ horses have white legs below the knees and hocks, regular spots, and their heads are marked like a solid-colored horse.

6. _____ horses have variable head markings, one or more leg that is dark colored, and scattered body markings.
7. A horse of either gender that has not been weaned is called a _____.

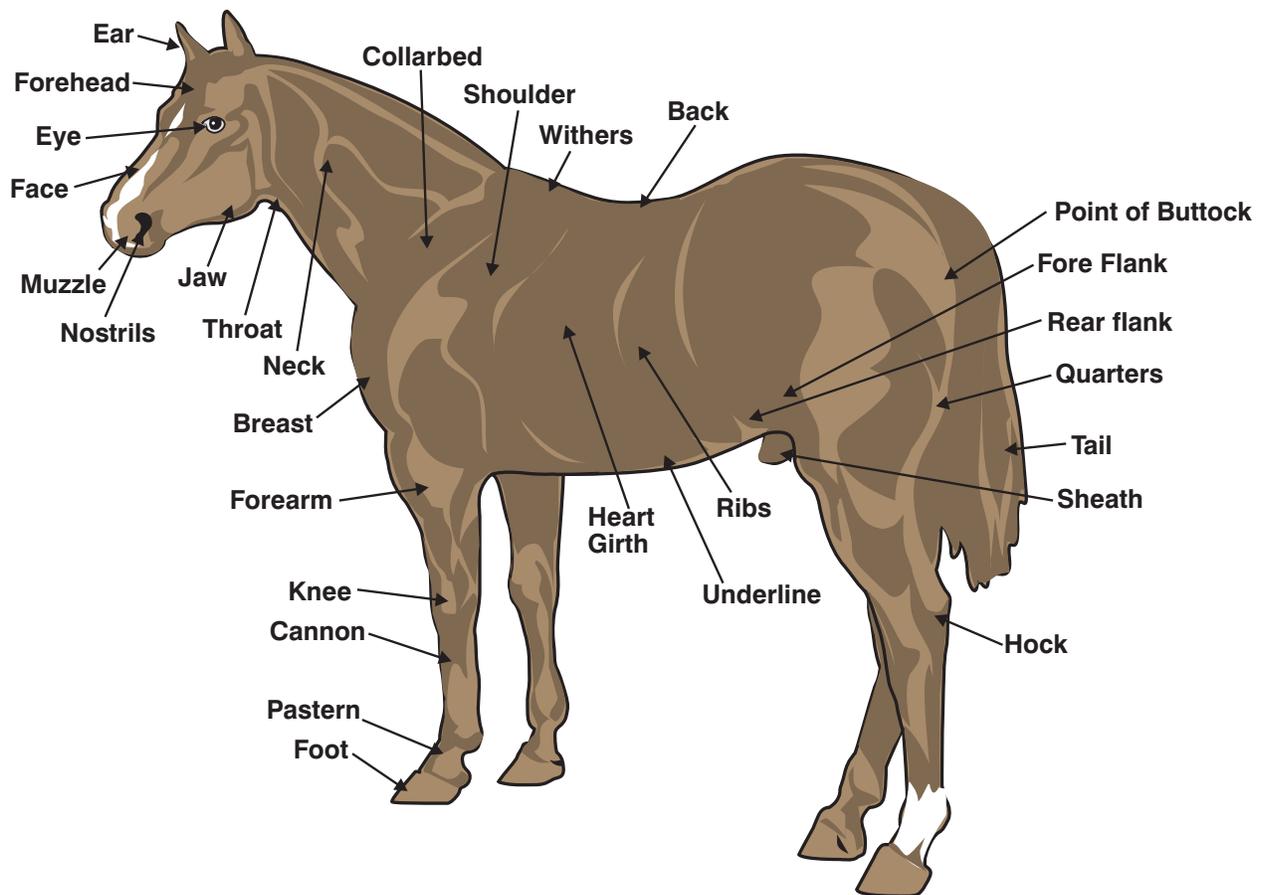
Part Three: Short Answer

Instructions. Provide information to answer the following question.

What are five riding and safety concerns?

HORSE TERMINOLOGY

- A hand is 4 inches or 10.2 centimeters.
- A light horse is used for riding or racing, stands 14.2 to 17 hands high and weighs between 900 and 1,400 pounds.



- **Pony is the name describing horses under 14.2 hands tall that weigh between 500 and 900 pounds.**
- **A draft horse is used for work, stands 14.2 to 17.2 hands tall, and weighs over 1,400 pounds.**
- **A filly is a Thoroughbred under four years old or any other kind of horse under three years old.**
- **A stud horse is a male that is kept for breeding.**
- **A horse of either gender that has not been weaned is called a foal.**
- **A male that has been castrated before reaching sexual maturity is called a gelding.**
- **A mature female is referred to as a mare.**
- **A mature male is called a stallion.**
- **A male horse that is not mature is called a colt.**

HORSE USES

Work

Companionship

Racing

Riding

Breeding

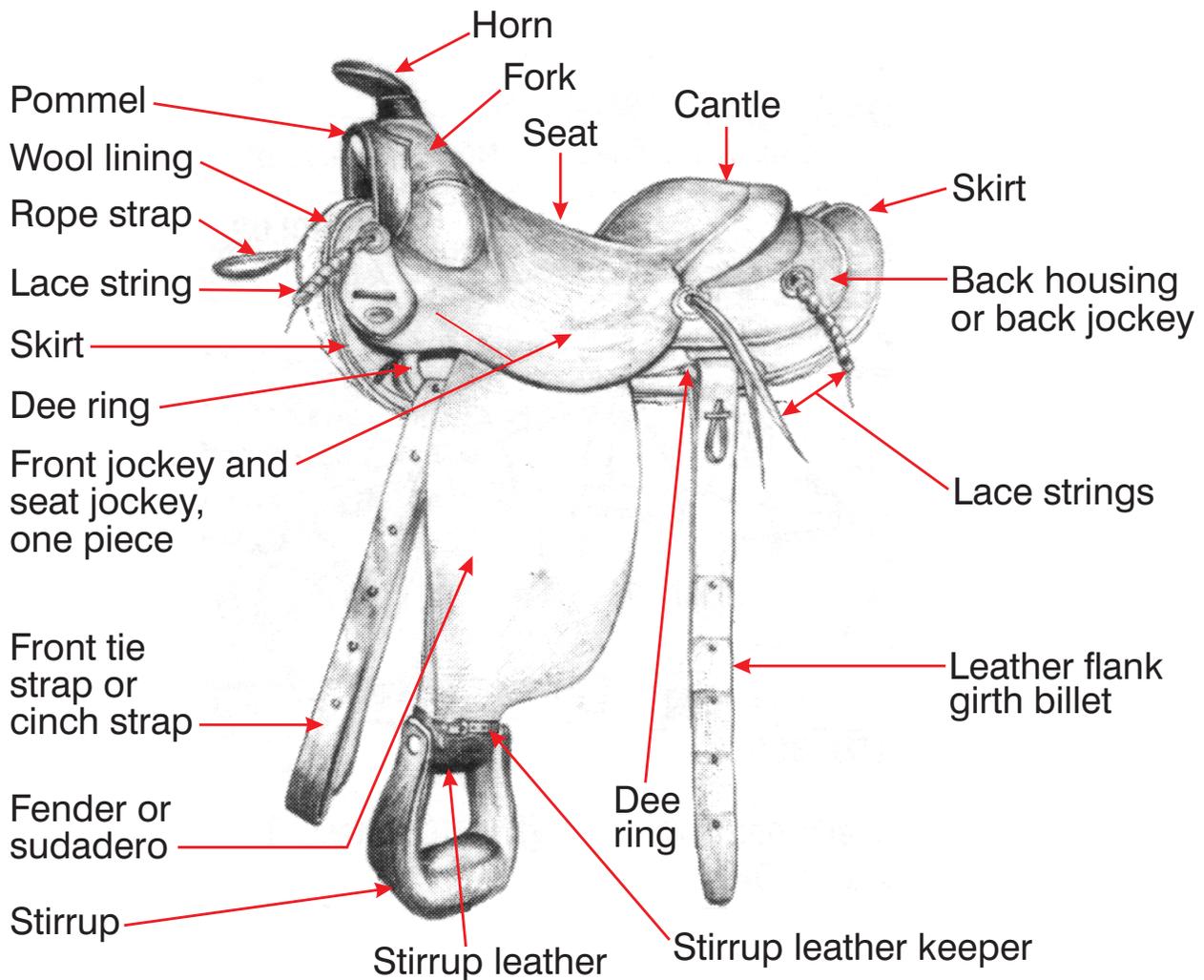
Physical Therapy

Cattle Roundups

HORSE COLORS

- **Bay:** yellowish tan to bright mahogany
- **Black:** fine black hair on muzzle
- **Brown:** very dark colored, but has tan or brown hair on muzzle or flanks
- **Chestnut:** red, but has variations from dark liver color to light yellow
- **White:** pure white horse that remains that way always

PARTS OF A WESTERN SADDLE



TM: B2–5E

POPULAR HORSE BREEDS



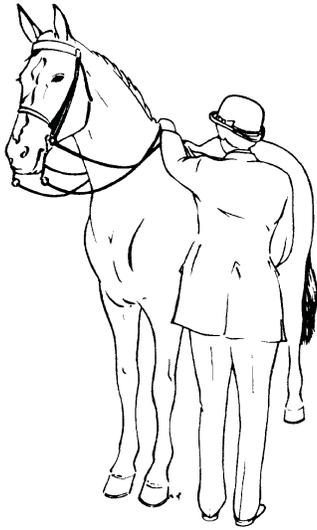
Top Left—Quarter Horse

Top Right—Paint

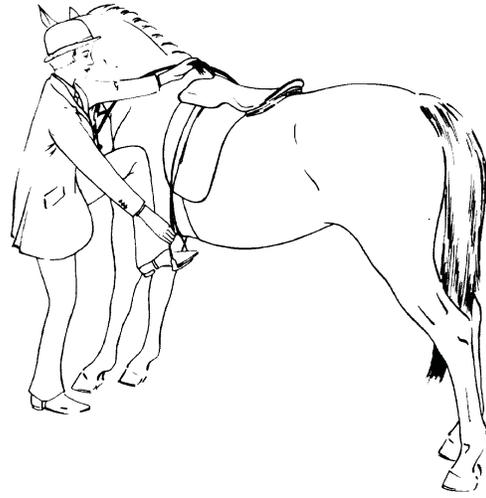
Bottom Left—Appaloosa

Bottom Right—American Saddlebred

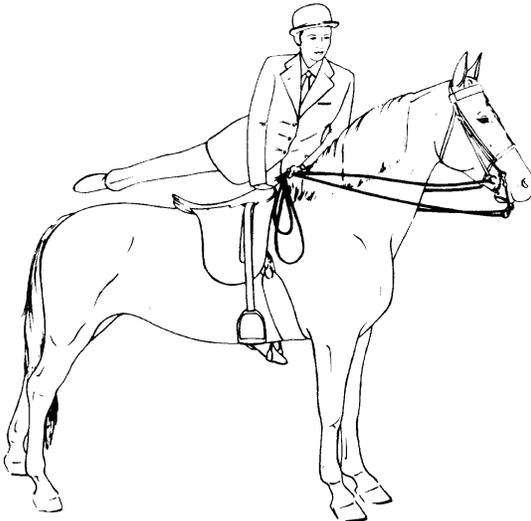
HOW TO PROPERLY MOUNT A HORSE



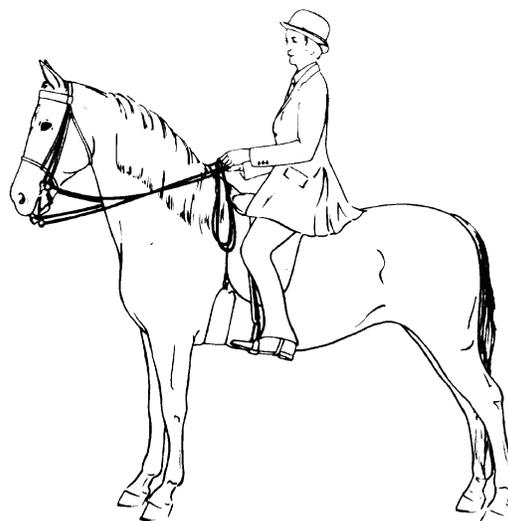
From the left, gather reins in left hand, and place left hand on or just in front of withers.



Turn stirrup iron one-quarter turn, steady stirrup with right hand and shove left foot into it.



Spring upward and lean on left arm, shift right hand from cantle to pommel of saddle; then swing extended right leg over horse's back and croup.



Ease down and sit easily, be alert and keep head up, and allow legs to hang comfortably with heels well down and toes turned out slightly.

Lab Sheet

Roping Cattle

Purpose:

To learn how to rope cattle.

Materials:

Bale of hay or straw

Rope

Plastic animal head

Instructional video, information sheet, or demonstration on roping cattle

Procedure:

Outside or in a large indoor area, set up a bale of hay or straw with a plastic cow head. Take turns trying to get the rope around the head using proper roping techniques.