



OKLAHOMA
CareerTech

Introduction to Agriscience

Unit 9
The Horse Industry

Student Edition

CIMC

AG3001

Unit 9

The Horse Industry

Many people love horses. But just because people enjoy working with horses, does that mean they are suited for a horse-related career? More than likely, the answer is yes. In fact, an enthusiasm for horses is a tremendous bonus. However, the horse industry is very diverse, and the various jobs in the horse industry require different types of education, skills and interests. Some jobs require a college education, but many do not. Also, some jobs require a high level of horsemanship, while other jobs require a better ability to work with people than animals.

The equine industry is a multimillion-dollar enterprise. The business is more than just horses — it encompasses feed, tack and equipment, publications, veterinary care, advertising, clothing, education, and many other fields that are either directly or indirectly affected by the equine industry.



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OBJECTIVES

1. Discuss the history of horses and their role today.
2. Identify common breeds of horses and ponies, and their characteristics.
3. Discuss the use of equine for work and recreational uses.
4. Locate the parts of the horse.
5. Identify horse colors and markings.

KEY WORDS

colt
dorsal stripe
draft horse
equine
feathers
feral
filly
foal

gelding
hands
light horse
mare
points
pony
stallion
withers

History of the Horse Industry

Horses are, quite literally, the maker of legends. From Alexander the Great's Bucephalus to Walter Farley's mythical black stallion, people have seen the horse as the embodiment of freedom, power, strength, beauty, and nobility.

The scientific name for the modern domesticated horse is *Equus caballus*. Also known as **equine**, the horse has been in existence for about two million years. Fossil evidence indicates that the horse originated in North America and then migrated into Asia and Europe. However, the horse subsequently became extinct in North America for unknown reasons.

SAE IDEA:
Exploratory
**Coordinate and conduct
a horse safety camp.**

The horse was first domesticated about 5,000 years ago in Europe and Asia. At first, horses were used to pull chariots — horseback riding did not come about until later. Over the centuries, many cultures in Eurasia and Africa learned to rely on horses for transportation, work, and military purposes. Many of the military conquests that occurred throughout history could not have happened without the use of horses. In fact, without horses, the history of humans would likely have been much different.

In the 16th century, Spanish explorers brought horses with them as they sailed to the New World, reintroducing the horse to North America. Over the years, some of these horses escaped and eventually formed the original herds of what are now called Mustangs—the “wild” horse of this continent. Mustangs are **feral**, or descendants of domestic horses that now live in undomesticated areas.

The Plains Indians, previously unfamiliar with the horse, soon learned to use its fleet strength to their advantage. The horse became an integral part of the Native American culture and was used for buffalo hunts, transportation, and in battle.

The horse continued to be an indispensable work animal until the early 20th century, when automobiles and other motorized machines offered ways to do the work of the horse far more quickly and efficiently. However, rather than disappearing from human society, the horse has instead taken on new, economically important roles in both recreation and sports.

**SAE IDEA:
Research**

Study the different breeds of horses and their uses, such as the differences in Quarter Horses versus Thoroughbreds.

Common Breeds

Horses can be categorized by size as light horses, draft horses, and ponies. All horses are measured in terms of **hands** at the level of the **withers**, or the highest point on the shoulder. A hand is four inches.

EXAMPLE: A horse that is 59 inches tall is 14.3 (pronounced “fourteen three”) hands, because it is 14 hands and 3 inches tall.



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A **light horse** is usually between 14.2 and 17 hands tall and is suitable for riding. **Draft horses** are much heavier and usually taller than light horses. They are bred, as the name implies, to do heavy draft work. A **pony** is shorter than a light horse and can be anywhere from 8 to 14.2 hands high.

Within the first year of life, a male and female horse is called a **foal**. If a horse is younger than three years, a female is called a **filly**, and a male is called a **colt**. After maturing past three years, the female is called a **mare**. The male horse is either a gelding or a stallion. A **gelding** has been castrated while a **stallion** has not been castrated. These terms are universal for all breeds of horses.

While there are thousands of breeds of horses in the world, certain breeds are consistently the most popular in the United States.

Arabian

This breed is considered the oldest purebred horse in the world and many other breeds are derived from it. The Arabian was developed in the deserts of the Middle East. It is an extremely hardy breed with a distinctive appearance and exceptionally friendly disposition. The head is characterized by a dished profile, prominent eyes, large nostrils, and small muzzle. The neck is arched with a back that is shorter than most breeds, and it has a high-set tail.



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Quarter Horse

The Quarter Horse got its name because of its great speed at short distances, particularly at a quarter mile. The breed was developed in the United States, and while its origins extend all the way back to colonial times, it was not until 1940 that an official breed registry was established. The Quarter Horse has thick muscling and is known for its ability to outmaneuver cattle. They are easy to handle and have a calm temperament.



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Thoroughbred

The Thoroughbred breed was developed in England around the turn of the 17th century. Its original purpose was to carry weight with sustained speed over extended distances. The ancestry of this breed is traced back to three foundation sires — the Darley Arabian, the Godolphin Arabian, and the Byerly Turk. Each of these stallions was named after its respective owner. Today, the registry is managed by The Jockey Club. The modern Thoroughbred is a tall, leanly muscled horse. Horses of this breed can run at speeds of 35 to 40 miles an hour. However, not all Thoroughbreds are raced. Many are used for jumping and dressage competitions and as pleasure horses.



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Appaloosa

The most easily recognized characteristic of the Appaloosa is its distinctive spotted coat. The spots can occur in a variety of ways, from large, egg-shaped spots on a white “blanket” over the hindquarters, to large or small spots scattered over the entire body. Some Appaloosas do not display this typical color pattern and may be a solid color. These animals must be blood-typed to verify their parentage. The Appaloosa is a versatile horse that participates in all types of equine competitions.



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THE WILD MUSTANG — A SYMBOL OF THE AMERICAN WEST

The Mustang is the breed that roams wild in the western United States. It is descended from horses that strayed from Spanish explorers in the 1700s, but over the years it has been influenced by many other breeds that escaped from farmers, settlers, and U.S. Cavalry soldiers. Because it is descended from domestic horses, it is considered a feral horse rather than a true wild breed. In fact, the name “Mustang” is derived from a Spanish word which means “wild” or “stray.”

The Mustang’s history is full of hardship. At the beginning of the 20th century, more than two million Mustangs roamed the western ranges of the U.S. As farmers and ranchers moved into these areas, they saw the Mustangs as competition for rangelands grazed by their cattle. With no laws to protect them, Mustangs were routinely killed and brutalized until, by the middle of the 20th century, their numbers had been reduced to several thousand. Finally, the efforts of concerned citizens helped the public become aware of the Mustang’s plight. A bill called The Wild Free-Roaming Horses and Burros Act, passed in 1971, offered the Mustangs protection from the slaughter they had experienced.

Today, the Bureau of Land Management oversees controlling the numbers of Mustangs that roam wild on public lands. It does this by routinely capturing the horses and offering them for adoption through the Adopt-a-Horse program. Mustangs are small but hardy horses. They come in a variety of colors. While it sometimes takes a great deal of patience and expertise to tame a wild Mustang, with the right handling, most Mustangs can become good riding horses.



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Morgan

Morgans are small to medium-sized horses with a compact body, stylish movement, and kind disposition. They are extremely versatile horses that compete in any kind of event, from pulling carriages to working cattle. The founding sire of the Morgan breed was a stallion called Figure, who was born in 1789. Figure became famous for his style, speed, endurance, and gentle disposition. Figure was a working horse, but he was also a popular sire. The Morgan breed was named for Figure's owner, Justin Morgan.



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Belgian

As the name implies, this breed of draft horse originated in Belgium. In the early 1900s, an American type of Belgian became the standard in this country. It is now considered "America's Favorite Draft Horse." The American Belgian is almost always a sorrel color. It is large and muscular with a willing and kind disposition. The Belgian is often used in pulling competitions or in a wagon hitch.



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Percheron

The Percheron is an old breed that originated in France. They were first imported to the United States in 1839. Today, the Percheron is a popular carriage horse in many large cities, and it is used for pulling competitions, dressage, and in halter classes. The Percheron is somewhat shorter, more refined, and more stylish than many draft horses, but it is still a tall animal with great strength.



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Clydesdale

The Clydesdale breed originated in Scotland and was developed to perform work on the farm and to pull freight. The Clydesdale is a tall horse with characteristics of strength, agility, and docility. They are commonly bay, black, brown, chestnut, or roan in color, and they frequently have four white legs and a white face. Their lower legs are covered with a long, fine hair called **feathers**. They are active horses with high head carriage and good action that makes them a beautiful sight when pulling a hitch.



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Shetland

The Shetland pony is a tiny breed that originated in the Shetland Islands off the coast of Scotland. It is one of the most popular breeds of ponies. It was bred to withstand the harsh climate of its homeland. Consequently, it is small but very strong for its size, extremely hardy, and has a heavy coat with a thick mane and tail. Shetland ponies are popular today as children's pets. They can be ridden or driven and are sometimes used in pulling competitions.



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Welsh

The Welsh Pony originated in the hills of Wales. Surviving in an area where winters were difficult and vegetation sparse, the breed developed into a hardy, strong, and intelligent animal. Taller than the Shetland pony, the Welsh has a refinement that shows the influence of Arabian ancestors. The Welsh Pony can be any color other than piebald or skewbald, which are color patterns that include patches of white or colorless skin. It is an excellent riding horse for children.



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Work and Recreational Uses

Many horses today are kept purely as pleasure mounts. Other horses are used for everyday work, such as cattle ranching, police work, or carriage driving. Horses are also used in many equine sports, from local competitions to international and Olympic events. Many equine sports are offered on both an amateur and professional level.

The two most common types of riding are English and western riding. Within these broad categories are many different specialties, such as jumping, barrel racing, or cutting. Each specialty often requires its own tack, expertise, and a horse trained in that discipline.

Combined Training/Eventing

Combined training, a sport for English riding, consists of competitive events that test the fitness, ability, and training of both horse and rider in three areas: cross-country riding, dressage, and show jumping.



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Cutting and Team Penning

These are western riding events. In cutting, a specific cow is separated from the herd. In team penning, several riders work together in separating cattle.

Dressage

Dressage is a form of English riding that focuses on developing the natural movements of the horse. Through training, the horse learns to carry the rider with balance and suppleness, while the rider learns to communicate with the horse using the subtlest of aids. Dressage has been likened to a form of dance with horses.

Driving

Driving competitions involve one or more horses pulling a cart, wagon, or carriage. Such events may take place in a show ring or as a more rigorous cross-country-style competition.

Endurance Riding

Endurance riding is a very strenuous sport that tests the horse's ability to cover very long distances, such as 50 or 100 miles, in a single day. Both horse and rider must be fit for this sport.

Fox Hunting

In fox hunting, hounds are used to track and chase foxes (or a lure that represents a fox, pulled by a wily person) while horses and riders follow. The horses must traverse unknown terrain and jump obstacles.

Gymkhana

Gymkhana games test a horse and rider's speed and agility. Many of the games are designed to help young riders practice basic skills, such as mounting, dismounting, starting, and stopping, in a way that is fun and competitive.



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Polo

Polo is a team sport (consisting of four members on each team) in which riders use mallets to hit a ball in a goal.

Racing

Racing focuses on the speed at which a horse can complete a specific type of race, such as flat racing, steeplechase racing (over jumps), and harness racing.



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Rodeo

Rodeos are western riding events in which riders compete in various activities. Most events are derived from skills required for cattle ranching. Events common at rodeos include bronc riding, calf roping, steer roping, team roping, steer wrestling, and barrel racing.



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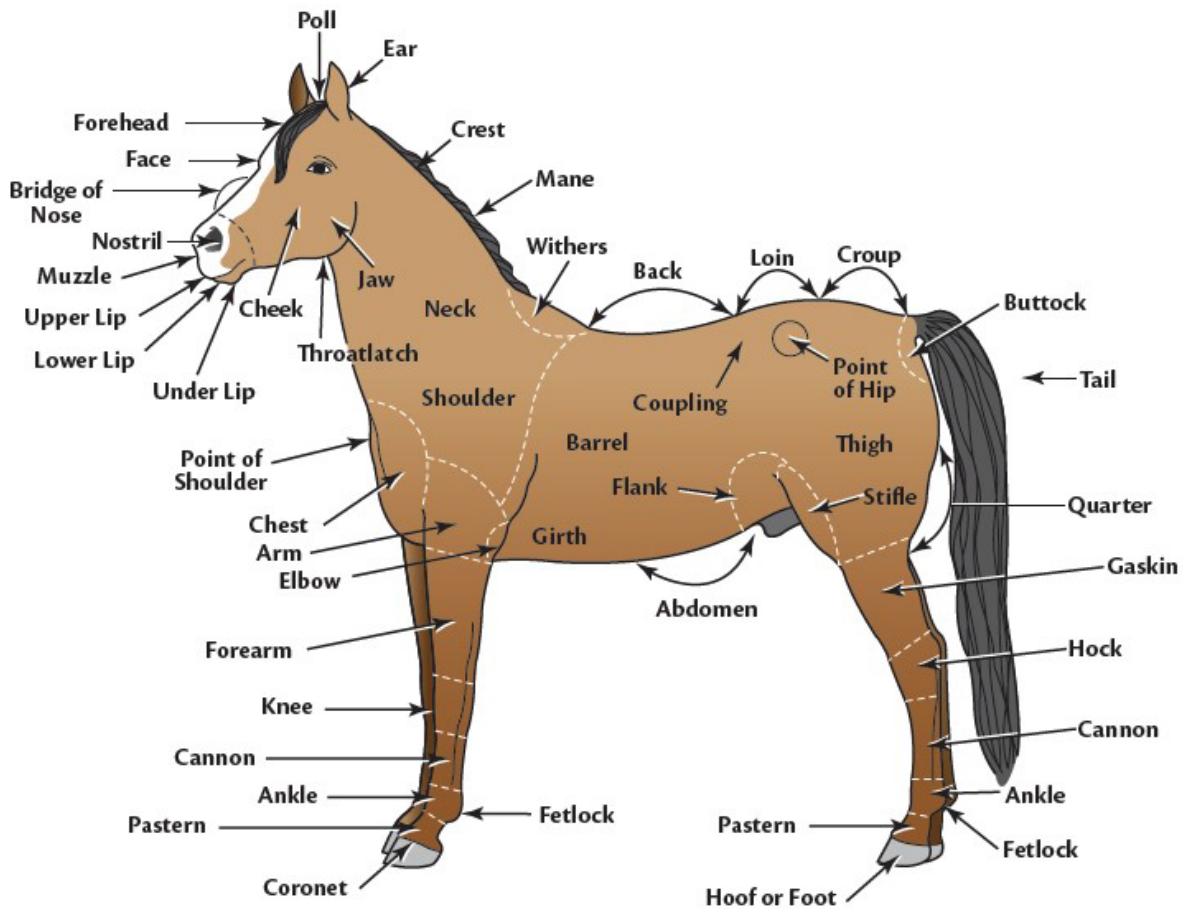
Show Ring

Horse shows consist of events that test a rider's basic skills, such as equitation, and events that test the skill of both horse and rider, such as reining and jumping. Other types of equine sports are perhaps less common, but they offer just as much fun for the participants. There are many ways that people enjoy their partnerships with horses.

Parts of a Horse

Horses are unique in that they have specific parts not found on other livestock. The throatlatch and under lip are not present or typically discussed in other animals. However, there are many parts that a horse has in common with other animals. For example, horses – like cattle, sheep, and hogs – have pasterns, hooves, hocks, flanks, and shoulders. The importance of horse parts lies

in the purpose the horse serves – cutting, showing, racing, hunting, and so on.



Colors and Markings

Horses come in a wide variety of colors and markings, and the terms used to describe those colors and markings can be different from region to region and from breed to breed. However, basic horse identification is by color, breed, and gender (for instance, “the bay Quarter Horse mare”), so it is important to know the various colors and markings that occur in horses.

Basic Colors

Sorrel/Chestnut

The terms sorrel and chestnut both describe a solid red or brownish red color, including the legs, with mane and tail any color but black. Some breed registries, such as the Thoroughbred and Arabian registries, do not use the term



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sorrel and call a horse of this coloring a chestnut. Other breed registries, such as the American Quarter Horse Association, make a distinction between a sorrel and a chestnut. Sorrel describes a horse whose body color is reddish or coppered. The mane and tail are usually the same color as the body but may be flaxen (blonde). Chestnut horses have a dark red or brownish red (bronze) body color, with the mane and tail usually dark red or brownish red, but sometimes flaxen.

Bay

A bay horse has a brown or red body color, ranging from tan to reddish brown to very dark brown. The **points**, which are the tips of the ears, the muzzle, the lower legs, and the mane and tail, are black. The body color of a bay may be the same as that of a chestnut, but if the points are black, it is a bay horse.



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Brown

Brown may also be classified as a chestnut by some people. If the body color is brown or black with light areas at the muzzle, eyes, flank, and inside upper legs, then it can be called brown. However, if the animal has black points, it would be called a brown bay.



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Black

Black is a less common, but popular color in horses. The body color is a true, solid black without any light areas (other than possible white markings on the face and legs). The mane and tail are also black.

Gray

A gray horse has a mixture of white hairs with any other colored hairs. It is always born a solid color rather than gray, and it turns gray after it loses its first foal coat. Most gray horses get lighter with age as more white hairs appear. A horse that is a dark gray at two years old may appear pure white by the time it is in its teens.

Palomino

The palomino has a body color of golden yellow with a white or flaxen mane and tail. A palomino does not have a **dorsal stripe**, which is a dark stripe along the spine.

Buckskin

The buckskin has a yellowish or gold body color with black points. Buckskins do not have a dorsal stripe.

White Variations

Genetically, there are different types of colors that appear white. Unlike a gray horse, which is born dark and turns gray after it loses its first foal coat, any of these colors is white at birth and will not change color as it ages.

A horse that is a very light cream color with “pumpkin” skin and blue eyes is a cream. There are different variations of cream, including cremello (cream colored body, white mane and tail) and perlino (a light cream body color, but a reddish tinge to the mane and tail).

A cream horse may even have white markings, which appear as white or “ice” hair against the cream of the basic color. A white horse is truly white all over and lacks pigment in all the hair and skin. It usually has brown eyes.



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Dun colors

Dun is a term for a color pattern that always includes darker points (not necessarily black), a dorsal stripe, “zebra stripes” or barring on the legs, and a shoulder stripe across the withers.

- Mouse dun or grulla—The body color is a bluish, smoky, or mouse gray. The points and dun markings (dorsal stripe, leg barring, and shoulder stripe) are black.
- Buckskin dun—The body color is yellowish or gold. The points and dun markings are black.
- Red dun—A form of dun with a yellowish or light red body color. The points and dun markings are a darker red.



Wikipedia Commons/Arsdelicata Photo

Roans

Roan describes a color that includes a mixture of white hairs with any other dark color on the body. The white hairs are usually more predominant on the body, particularly the flanks and barrel, and are less likely to appear on the head and lower legs. While a gray horse may show a mix of white and black hairs, a gray horse will always get lighter with age.

A roan horse may look like a solid color when it is born, but it will show the roaning pattern by the time it loses its first foal coat, and then it will remain the same shade throughout its life. A red roan is a chestnut or sorrel horse with the roaning pattern. The body has a fairly uniform mixture of white with red hairs on the body. Usually the points are a darker red, though the mane and tail may be lighter.

SAE IDEA:
Placement
 Assist a horse group that
 works with students with disabilities.

A blue roan color shows a mixture of white and black hairs on the body, but it is usually darker on the head and lower legs. It can be distinguished from a gray because the roaning does not appear on the head and lower legs. It also does not get lighter as it gets older. A bay roan horse has a mixture of white with red hairs and the points are black.

SAE IDEA:
Entrepreneurship
Provide equine training services.

Pintos and Paints

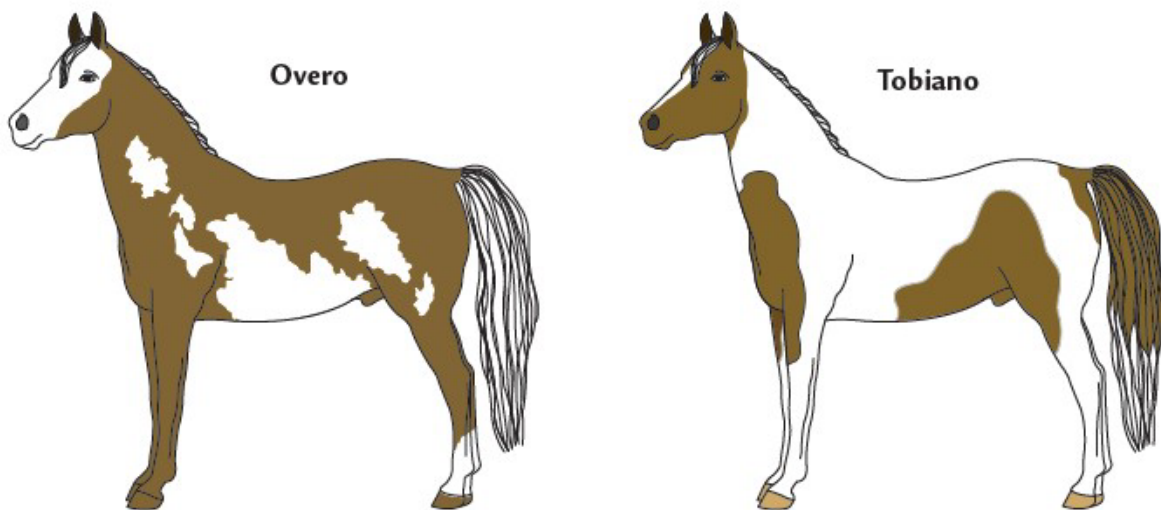
The terms pinto and paint are sometimes used interchangeably to describe a horse with a spotted coat. However, there are currently two different registries that make a definition between Pintos and Paints. The Pinto Horse Association of America registers horses and ponies of any breed that exhibit the spotted coat coloring. The American Paint Horse Association requires horses to be of Quarter Horse or Thoroughbred descent, as well as have the desired color. The Pinto and Paint spotted coloration occurs in a variety of patterns, including overo and tobiano.



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On an overo pattern, the white originates on the underside of the horse and will rarely cross the back of the horse between its withers and its tail. Usually, at least one and often all four legs will be the dark color. Head markings are predominantly white. The tail is usually one color. An overo horse may be either predominantly dark or white.

The tobiano normally exhibits white across the spine extending downward between the ears and tail in a clearly marked pattern. Head markings will be like those of a solid-colored horse. With a tobiano, all four legs are usually white, at least below the hocks and knees. The tobiano rarely has more than one or two solid-colored legs. The spots are generally regular and distinct as ovals or round patterns that extend down over the neck and chest, giving the appearance of a shield. The horse will usually have the dark color on one or both flanks. A tobiano may be either predominantly dark or white.



Appaloosas

The Appaloosa color pattern occurs in several different breeds. Not all Appaloosas will show a “flashy” Appaloosa color pattern—they may be any solid color. In fact, the Appaloosa color pattern on an individual horse can even change over time. There are several recognized Appaloosa color patterns. Three common patterns are the leopard, blanket, and snowflake.

The leopard pattern is white all over with dark spots scattered all over the body. The blanket pattern is a very common one. The horse is a dark color with a blanket of white hair over the hips and croup area, sometimes extending farther up the back. Usually, there are dark spots within the white area, but sometimes there are no spots. A snowflake pattern is any color with small white spots scattered randomly over the body.



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Common Head and Leg Markings

Head Markings

- **Star**—Any marking on the horse's forehead
- **Snip**—Any marking between the horse's nostrils, usually vertical
- **Strip**—A narrow marking between the horse's forehead and nostrils, extending vertically
- **Star and strip**—A marking on the horse's forehead with a strip to the nasal peak; the strip is not always an extension of the star
- **Star, strip, and snip**—A marking on the horse's forehead with a narrow extension of the nasal peak and opening up again between the horse's nostrils; the star, strip, and snip may be connected
- **Blaze**—A vertical marking that extends the length of the face and is of medium width and is relatively uniform
- **Bald face**—A broad blaze; it can extend out and around the horse's eyes and down to the horse's upper lip and around the nostrils



Star



Snip



Strip



**Star and
Strip**



**Star, Strip
and Snip**



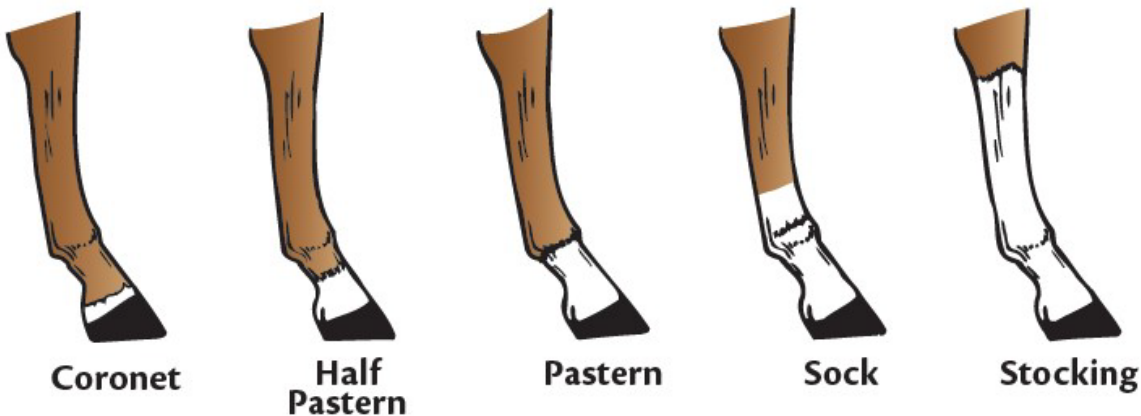
Blaze



**Bald
Face**

Leg Markings

- **Coronet**—Any narrow marking around the horse's coronet above the hoof
- **Half pastern**—A marking that includes half of the horse's pastern above the coronet
- **Pastern**—A marking that includes the horse's entire pastern
- **Sock**—A marking that extends from the horse's coronet halfway up the cannon bone, either halfway to the knee on the foreleg, or halfway to the hock on the back leg
- **Stocking**—An extended sock that is a full marking to the area of the horse's knee on the foreleg and to the area of the hock on the hind leg



A HORSE OF A DIFFERENT COLOR

Relatives of the domestic horse still exist in the wild. The Equus family includes seven close cousins, three of which are distinct species of zebras. Zebras are unique to the continent of Africa. They have a conformation much like that of a short, stocky horse and they have a short mane that stands upright. All zebras show distinctive black and white stripes, which are the zebras' best defense against predators. The striped pattern varies from species to species, but there are also slight differences between individuals, so no two zebras are exactly alike. Researchers now think that the striped pattern also helps zebras recognize one another.

Can a zebra be domesticated like horses and donkeys? No, because they are truly wild animals, unlike feral horses. But because zebras are so closely related to domestic horses, they can crossbreed with them. The umbrella term for a zebra hybrid is "zebroid." Like mules and hinnies, zebroids are sterile. The offspring from a zebra-horse crossing is a zorse, while the result of a zebra-donkey crossing is a zebrass. A zorse usually looks more like a horse than a mule, but it has stripes. A zebrass more closely resembles a striped mule.

UNIT SUMMARY

Horses are used for a variety of reasons, most commonly for pleasure. Not all breeds are used for the same purpose. The Quarter Horse is commonly used for working livestock on a ranch, where a breed such as the Arabian is often used for showing. There are breeds of all shapes and sizes suited for any need. A horse is measured by hands, and each hand equals four inches. There are also many markings and colors to make each horse unique. Many times, the color and markings determine which breed association the horse can be registered. The markings on the head and legs of a horse will also make it one-of-a-kind.

UNIT REVIEW

1. Where is it believed that horses originated?
2. How long ago was the horse domesticated?
3. What is another term for a feral horse?
4. How is a horse measured?
5. What is the difference in height between a draft horse and a pony?
6. Which breed of horse is known for running long distances?
7. Name three draft horse breeds.
8. What are five work or recreational uses for horses?
9. Which parts are unique to a horse compared to other animals?
10. What is the difference between a sorrel and a chestnut-colored horse?
11. Describe the differences between a cream and a white horse.
12. What breed must a Paint horse be in order to be registered with the American Paint Horse Association?
13. Which head marking is between a horse's nostrils?
14. What leg marking covers the horse's coronet, pastern, and halfway up the cannon bone?

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