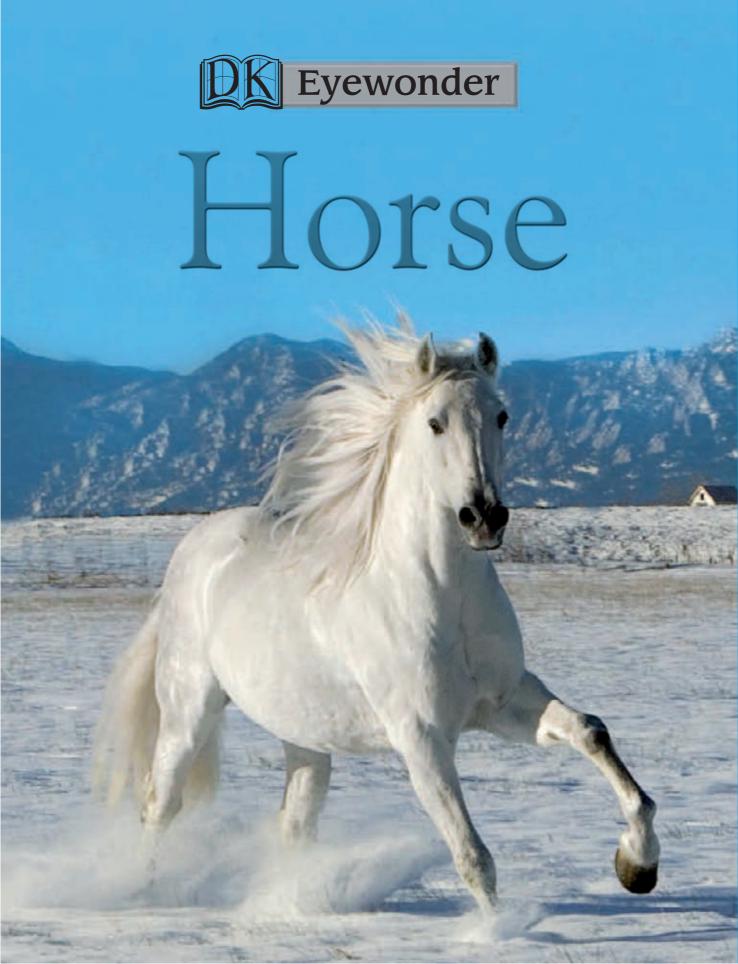


Horse

Enter a world of discovery





LONDON, NEW YORK,
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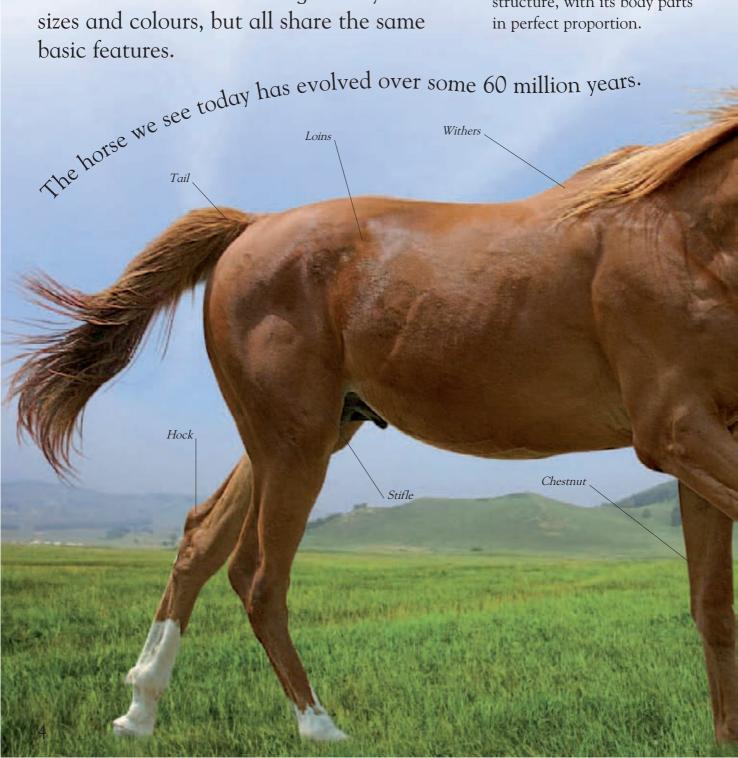
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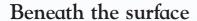


What is a horse?

A horse is a mammal with extraordinarily well-developed senses that keep it on constant alert to real or imagined danger. Horses come in an amazing variety of sizes and colours, but all share the same basic features.

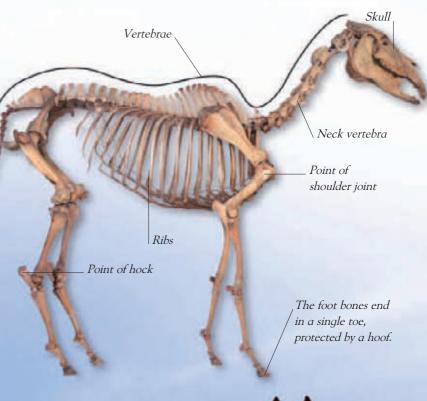
That's a good one! When people say a horse has good conformation, they mean it has good bone structure, with its body parts in perfect proportion.





A horse's skeleton has 205 bones. Like all mammals, it has a backbone, and seven neck vertebrae. But it has no collar bone (a feature common in mammals that run!).





The German Schleswiger is a heavy horse.

How many?

From the Akhal-Teke to the Welsh cob, there are more than 250 breeds of horse worldwide. These can be divided into three main types: heavy horses, light horses, and ponies.



Shetland pony

A bit about teeth

Horses are herbivores. They graze for about 20 hours a day, and their teeth are therefore made for biting, cutting, and grinding plant





4-5 years

9–10 years

matter. A foal's first milk teeth are replaced by about 40 adult teeth, which age with the horse.

Close encounter

Skewbald, dapple grey, piebald, 14 hands, 12.2 hh... horses are often referred to by their colour and size. Many people have a favourite colour, though colour does not affect a horse's performance or its temperament.

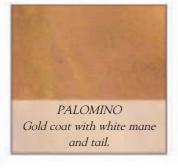


A question of colour

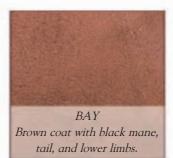
Horses are unusual amongst mammals for the range of colours to their coats. That range is a result of breeding particular horses together over hundreds of years. Here are a selection of the recognized colours.

Measuring up

Horses and ponies are measured in hands high (hh) or in centimetres, from the ground to the highest point of the withers. A hand is 10 cm (4 in).

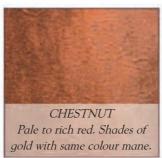
























WORLD'S SMALLEST HORSE

The world's smallest horse, Thumbelina, stands just over 43 cm (17 in) tall at the withers and weighs just 25.85 kg (57 lb). Previous to this, the record holder was Little Pumpkin, who stood barely 35.5 cm (14 in) at the withers. That's the size of a small dog!



My horse has a star!

Many horses have white hair on their faces and legs, which makes a distinctive pattern. These markings have names.



A narrow white strip that runs down the face.



An irregular shape set between or above the eyes.



BLAZE A wide white strip that runs down the face.



SOCK White markings to the lower foot.



chestnut.

STOCKING White markings up to the knee or hock.



CORONET White markings at the base of the foot.

Movement

From a slow-paced walk to an exhilarating gallop... a horse's movement is called a gait. A horse has four natural gaits, each with an audible set of footfalls, or beats.

Walk

The slowest gait has four beats. While walking, the horse has two or three of its four hooves on the ground at any time.









Trot

This two-beat gait sees the right hind leg and the left fore leg move together and the left hind and right fore move together.









Canter

The canter has three beats: the left hind leg, then the left fore and the right hind together, and then the right fore leg.









Gallop

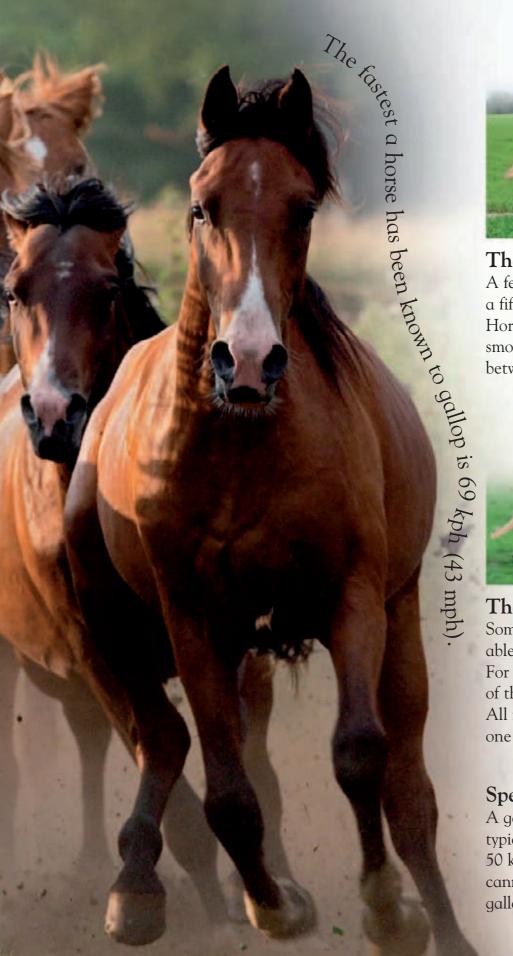
This is the fastest movement, with four beats. All four feet are off the ground at once for longer than they are in a canter.













The fifth gait
A few breeds of horse have
a fifth gait. The Icelandic
Horse can tölt. A tölt is
smooth to ride, falling
between a trot and a canter.



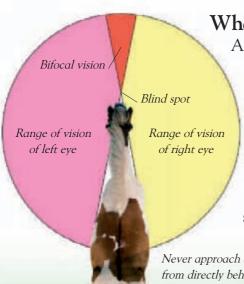
The Pace
Some Icelandic Horses are able to do a "flying" pace.
For this, the legs on each side of the horse move together.
All four leave the ground at one point. It's a fast gait!

Speed kings

A galloping horse can typically reach speeds of 50 kph (30 mph). Horses cannot gallop for long since a gallop requires a lot of energy.

Talking horse

Horses are social animals and prefer to live in groups. They communicate, or "talk", through body language, and by using their sight, hearing, and smell to recognize one another and find out what's going on.



What good sight!

A horse's vision is excellent. It's very different from our vision though, because its eyes are on the side of its head. Horses can see almost 360 degrees, as shown by this diagram.

Never approach a horse from directly behind. This is a blind spot.



Listen up!

Horses also use sound to "talk". They squeal in aggression, or whinny with excitement. A mare will whicker (neigh softly) to her foal, while a stabled horse will



Flexi ears

A horse has exceptionally good hearing. Each ear is controlled by 13 pairs of muscles, making it amazingly mobile. The position of the ears tells a lot about the mood of the horse.



This horse is showing fear or anger.



This horse is alert and responsive.



This horse is listening and relaxed.

Mutual grooming

Horses have favourite friends, just like us! They will stand with a friend, grooming that horse with a nibbling of their teeth on the neck and shoulder. Standing like this, they are also more secure, because they can keep an eye on each other's blind spot.



Foaling

Foals are born fast: the whole process takes less than an hour, unless there is a problem. Why is it so quick? Horses are instinctively wary of being caught by a predator, so they need to be up and ready to go as soon as possible.





Look, ma!

A foal will take its first steps just 30

HOW LONG CAN A HORSE LIVE?

The record for the world's oldest horse goes to a horse born in 1760 and known as Old Billy. He lived for an amazing 62 years and worked as a barge horse in

Lancashire, England. Old Billy was said to be black with a white blaze on his head. His death was recorded in November 1822.



Time to suckle

oal win.

nutes after but

en gallop when just

A female foal is known as a filly over suckle domestifted from after after a filly over the control of the c Foals suckle the mare for the first. few months of life, gradually moving over to grazing. In the wild, they suckle for around a year, but domestic horses are weaned from their mother's milk after about five months.

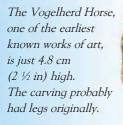


Time to rest

Foals need a lot of rest: they actually spend about 12 hours a day asleep (but this is done in short bursts and not in one long sleep like humans). They usually sleep lying down, while adult horses tend to sleep standing up.

Horses and humans

About 34,000 years ago, one of our human ancestors sat and carved a tiny horse from a mammoth's tusk using a stone tool. This amazing carving (below) was only discovered in the 1930s! Horses and humans have a long, shared history.





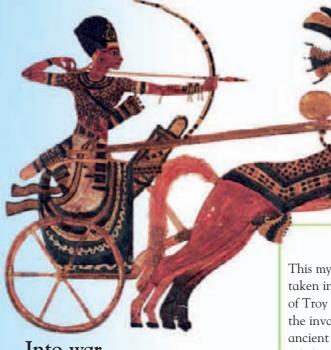
Horses are still milked in remote areas of Asia.

The first riders?

The Botai, hunters living in Central Asia, were almost certainly riding horses around 5,500 thousand years ago, as well as milking them.

> Horses allowed American Indian tribes to hunt over

larger areas.

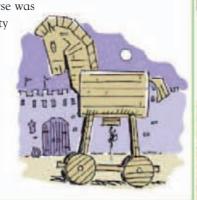


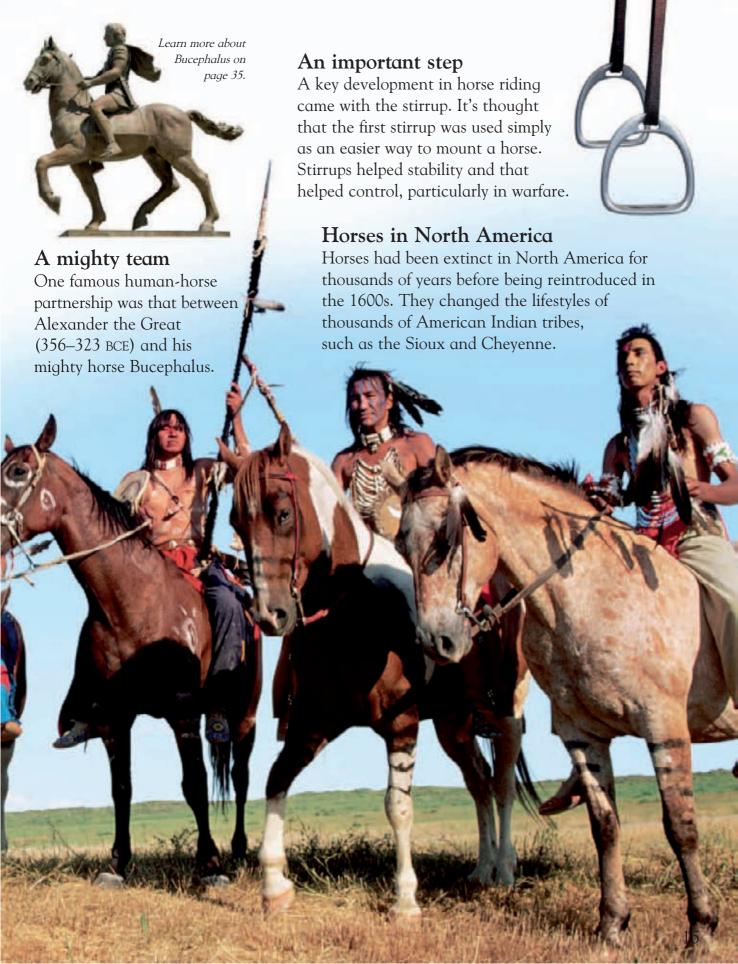
Into war

The invention of the horse-pulled chariot around 2,000 BCE opened the way for new forms of warfare. The invention of spoked wheels made chariots lighter.

The trojan horse

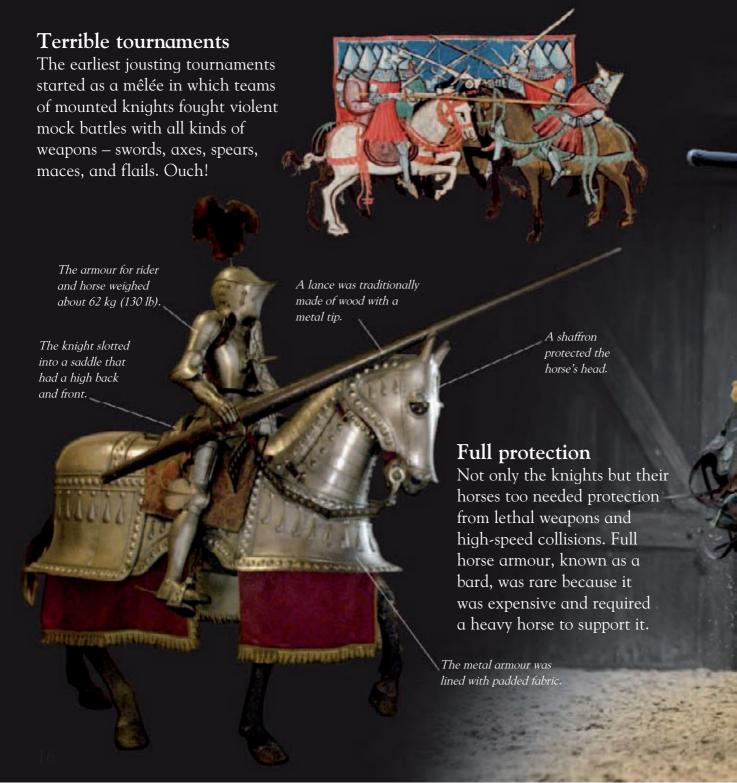
This mythical wooden horse was taken into the besieged city of Troy in the belief that the invading force, the ancient Greeks, had left it behind. However, the horse was filled with Greek soldiers, who let their army into Troy to defeat the inhabitants and claim victory.

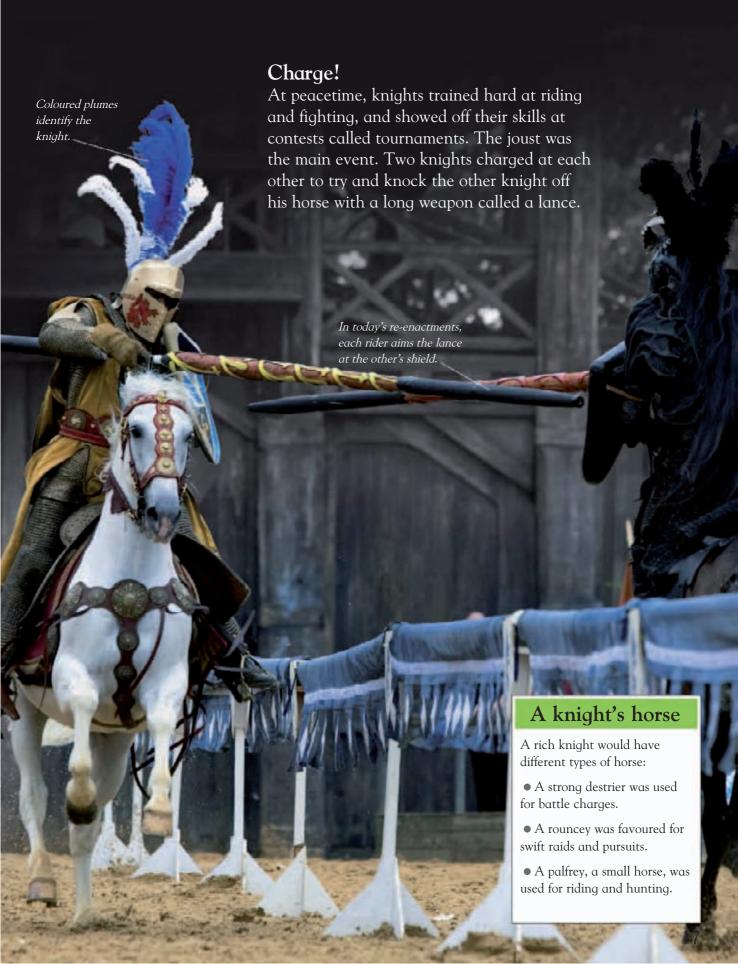


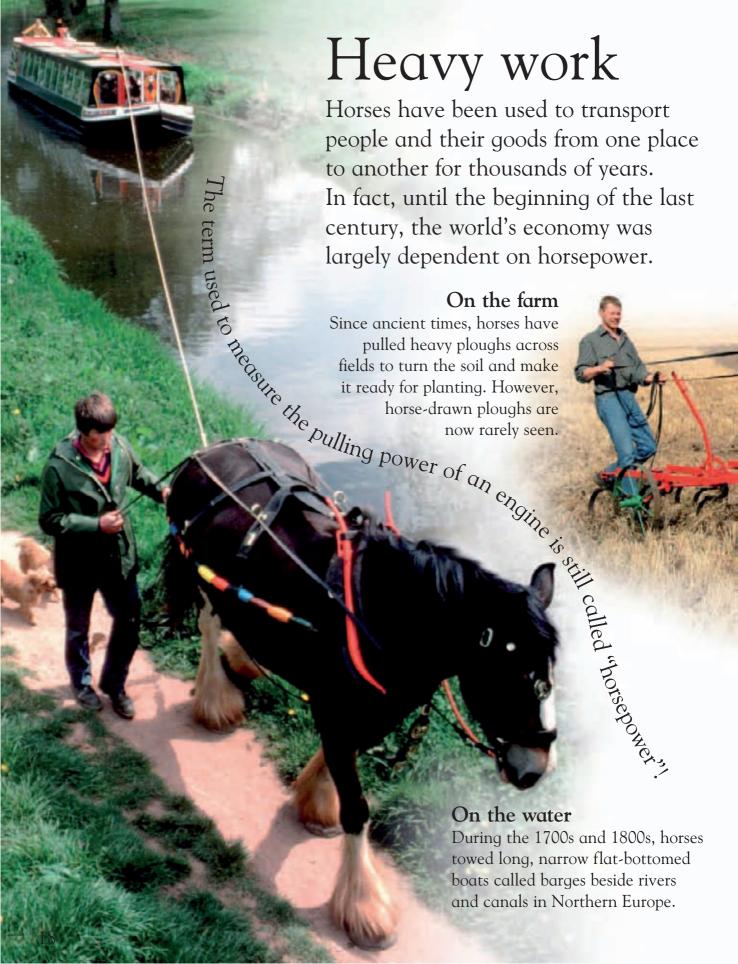


Jousting

Knights were important people in Medieval Europe. Riding into battle on warhorses, they fought for kings and nobles, and helped defend their castles or conquer new lands and peoples.









Going underground

In England in the 1800s and 1900s, ponies were taken to work in coal mines. They were usually well looked after, but rarely came up.

Luggage was stowed on the roof.

On the road

Horse-drawn stagecoaches were common before road and rail transport, and they made for long, bumpy rides.



horses were hitched to the front.

Horse powered

The Industrial Revolution that began in England 250 years ago brought in all kinds of new machines, but it would not have happened without the horse. This machine used a horse to grind corn to make flour.

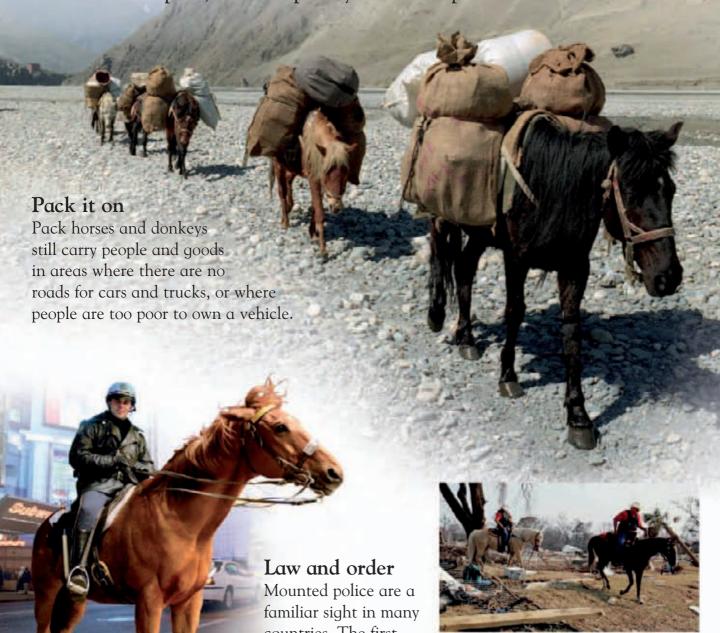


Pony Express

This mail service ran for just 18 months in 1860, with riders changing galloping mounts frequently to carry mail an amazing 3,200 km (2,000 miles) across the US.

Still going strong

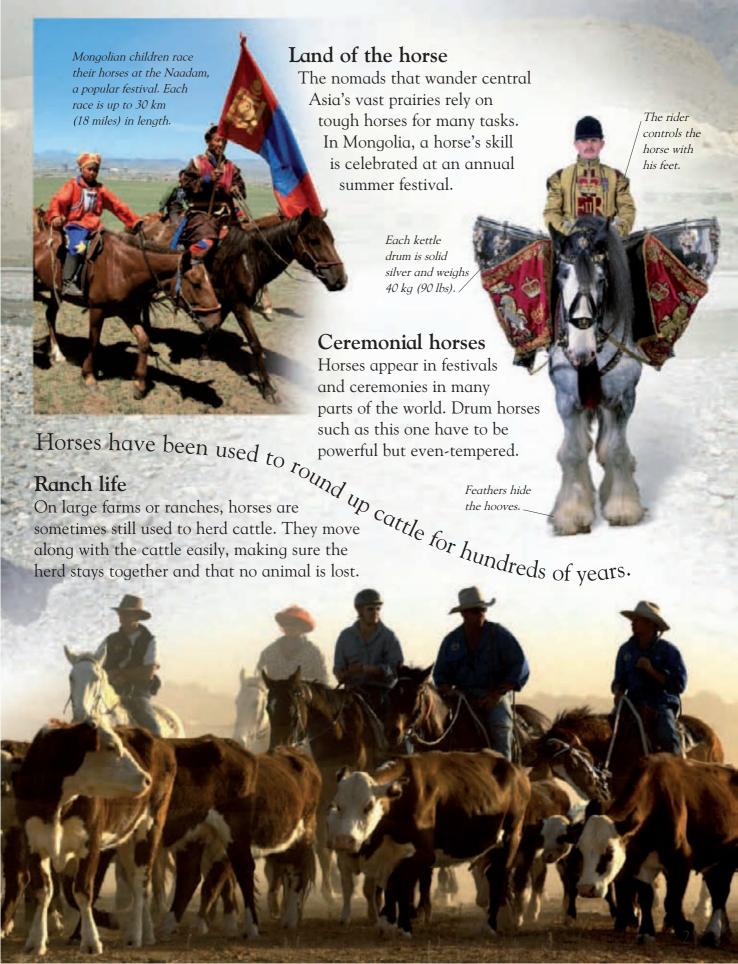
Much of the heavy work that horses have traditionally done is now done by machines. But horses are still used for certain kinds of transport, and for plenty of other specialized tasks.

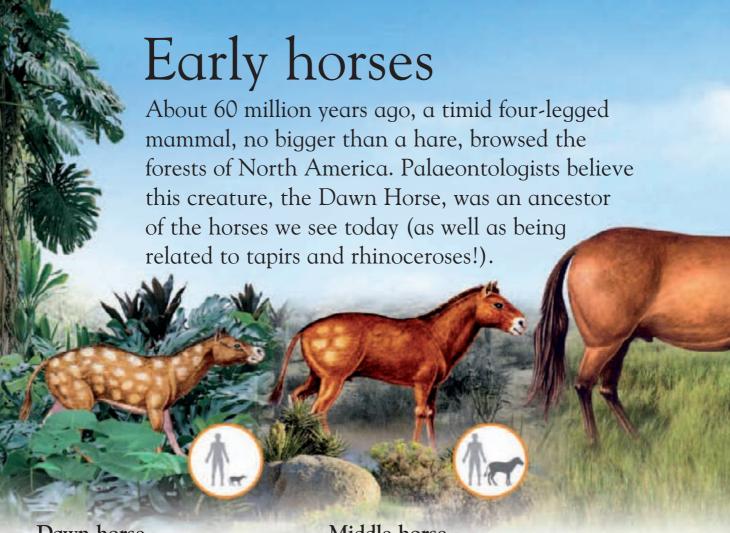


Mounted police are a familiar sight in many countries. The first mounted police were London's Bow Street Horse Patrol, formed in 1758. Police horses are highly trained.

Search and rescue

When people get lost in wildernesses too remote to search by foot, riders may sometimes comb the area while helicopters look from the air.





Dawn horse

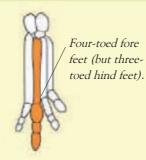
Hyracotherium, the Dawn Horse, could be found in North America 50 million years ago (mya). Small teeth show it was a browser, probably favouring soft leaves and fruit.

Middle horse

Looking back 40 million years sees the emergence of *Mesohippus*, slightly larger than the Dawn Horse at about the size of a sheep. This animal wandered a more open landscape, with fewer forests.

Hoof development

As the horse's environment changed, so did its toes, evolving from multi-toes encased in fleshy pads to a single toe protected by a hoof. This change happened gradually, over the course of millions of years.



HYRACOTHERIUM moved on soft, moist soil, the spread of the toes preventing it sinking.



MESOHIPPUS rested its weight on its middle toes, but still walked on three toes.



PLIOHIPPUS was the first one-toed horse. The toe was protected by a hoof.



This creature, *Pliohippus*, was about the size of a donkey and lived between ten and five mya. It had longer, stronger teeth, to cope with the tougher vegetation of a drier climate. It probably roamed open plains.

A more recognizable ancestor of today's horses appeared some four mya. *Equus* was the size of a pony, and, with its longer legs, an adept runner over the larger areas of grassland that had changed the landscape.

Reaching new places

Equus emerged in North America, so how did its descendents spread? They migrated via Ice Age land bridges. When the ice receded (some 10,000 years ago), the horse disappeared in North America. No one knows why. It was reintroduced in the 1600s.



Wild horses

Horses ran wild for thousands of years before being tamed by humans. There are now no wild horses, though some experts think the Przewalski's horse – a primitive horse that still survives – is related to these early breeds.

One big family

Equidae, the horse family, includes four types of horse – Przewalski's horse, domestic The Arrica Waldass is one of the Montage tarest mammals. horses (including ponies), asses, and zebras.

PRZEWALSKI'S HORSE These horses have short manes and no forelock.

ASSES There are three types of ass: the African wild ass, the kiana, shown here, and the onager.

ZEBRA This is the one truly wild member of the horse family.

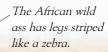
A true survivor

Like its wild ancestors, an African wild ass is tough. It can survive for two or three days without water, living on almost any plant material.



Wild origins

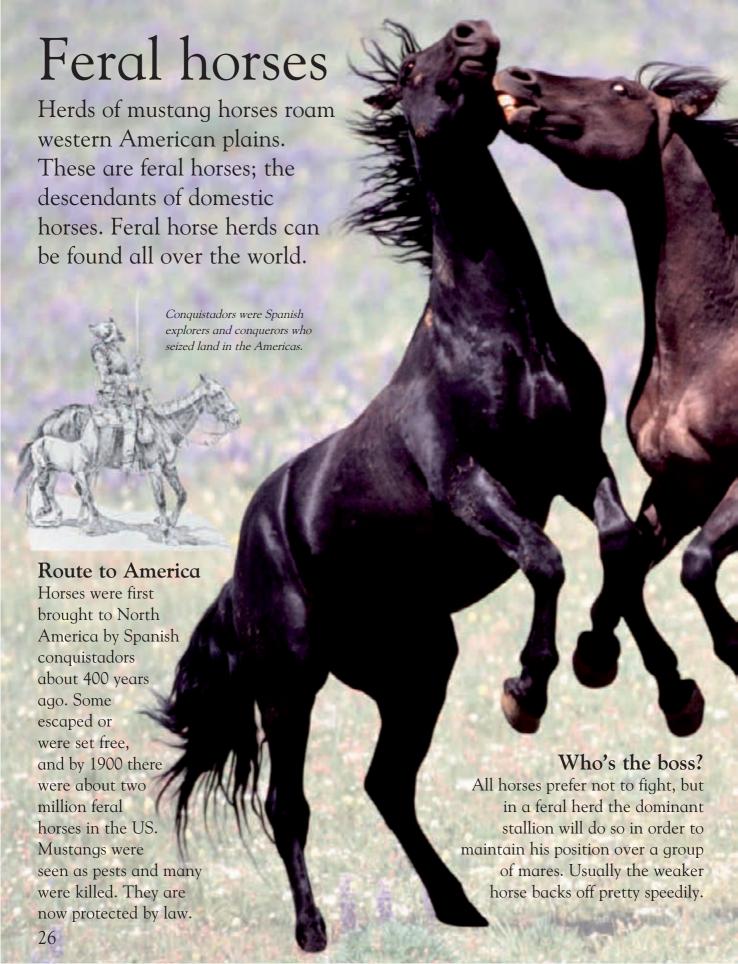
Also known as the Asian wild horse, Przewalski's horse has been extinct in the wild since the 1960s, but groups are gradually being released from small captive herds.

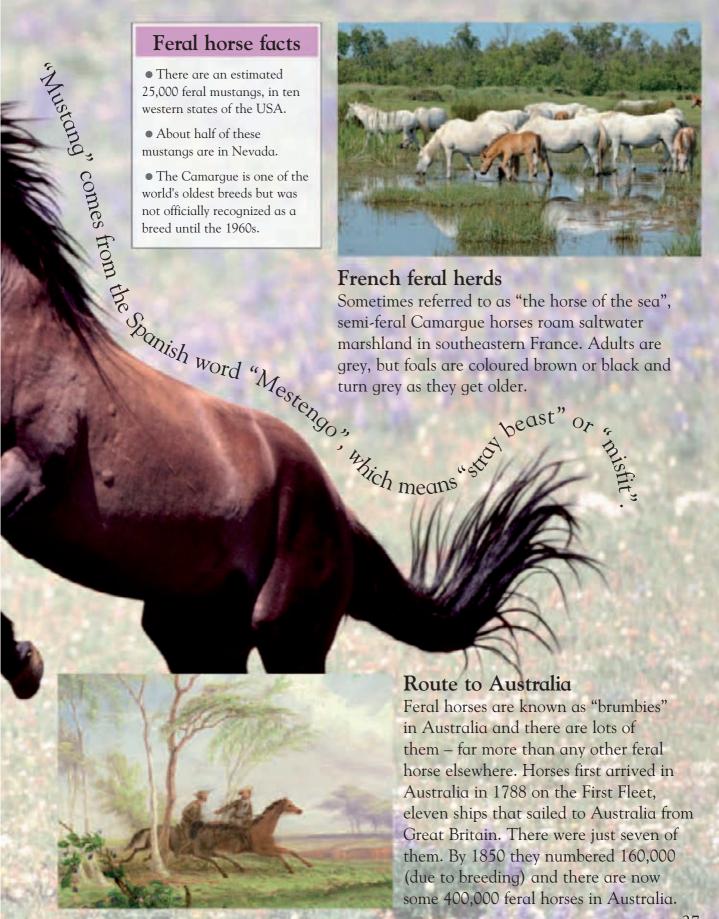


It's just a zebra! You may think that all zebras are alike, but in fact there are three species of zebra and each species has a different pattern of stripes. In fact, no two zebras have the same pattern of stripes (just like humans have unique fingerprints). GREVY'S ZEBRA PLAINS ZEBRA **MOUNTAIN ZEBRA** Has a fold of skin, a The largest of the The most common zebra family. dewlap, on its throat. of all zebras. Mix them up! Can a zebra be tamed? A zebra crossed with a Zebras have not been successfully donkey produces a zedonk. trained to work for humans apart • Crossing a male donkey with from in a few cases. That's because a female horse produces a mule. they tend to get aggressive as they get • A male horse and female older and they panic easily. donkey produce a hinny. A horse and zebra

produce a zorse.

Zebras have rarely been used in this way, as their reactions can be unpredictable.







Worldwide there are about 250 breeds of horses. Three of the most important breeds are the Arab, the Thoroughbred, and the Barb. Of these, the Arab and the Barb were the first to appear.



The amazing Arab

The Arab first appeared in Arabia and North Africa about 3,000 years ago. It is highly prized for its beauty, intelligence, and speed. Arab horses have 17 ribs – other breeds have 18.

An Arab horse holds its tail high when moving.

Elegant head with dished face.

Large

nostrils

Horse facts

Colours are

brown, bay,

black, or grey.

chestnut,

- Arab and Thoroughbred horses are called "hotbloods" because they are quick and athletic.
- "Coldbloods" are heavier horses, such as Clydesdales.
- All Thoroughbreds can be traced back to three stallions from the 1600s and 1700s.



Owning a horse

Do you dream of owning a horse? There's a lot to consider. They need daily attention, and it's worth helping out at a local stable before committing to your own horse. Here are some of the basics you will need to know.

Good grooming

A horse needs to be kept clean, and a daily groom will ensure it is. Grooming is also a useful way of checking the condition of your horse, because you'll quickly spot any bumps or cuts. Horses enjoy being groomed.





What will I need?

Each horse should have its own grooming kit, kept in a clean container that can be carried to the horse. Always store brushes with the bristles down – it helps the brushes to last longer.

Sponges are used to clean the eyes, nostrils, and dock.



Sweat scraper



Hoof care

Hooves need checking for stones. Use a hoof pick, and clean from the heel to the toe. Clean away from the central frog.



Time for the dentist

A problem with the teeth can make a horse very bad-tempered indeed. A regular dental checkup is a must.

Time for a haircut

Horses may need clipping if they are working hard or they may overheat. There are a number of different types of clip.

Numnah

Tack care

A horse needs its tack professionally fitted, as poorly fitted tack can cause sores and hard skin. Clean a leather saddle and bridle regularly to keep the leather supple.



Looking after a horse

As well as good grooming and tack care, a domestic horse has lots of other requirements, from its food to its field and shelter.



Oats

Living in

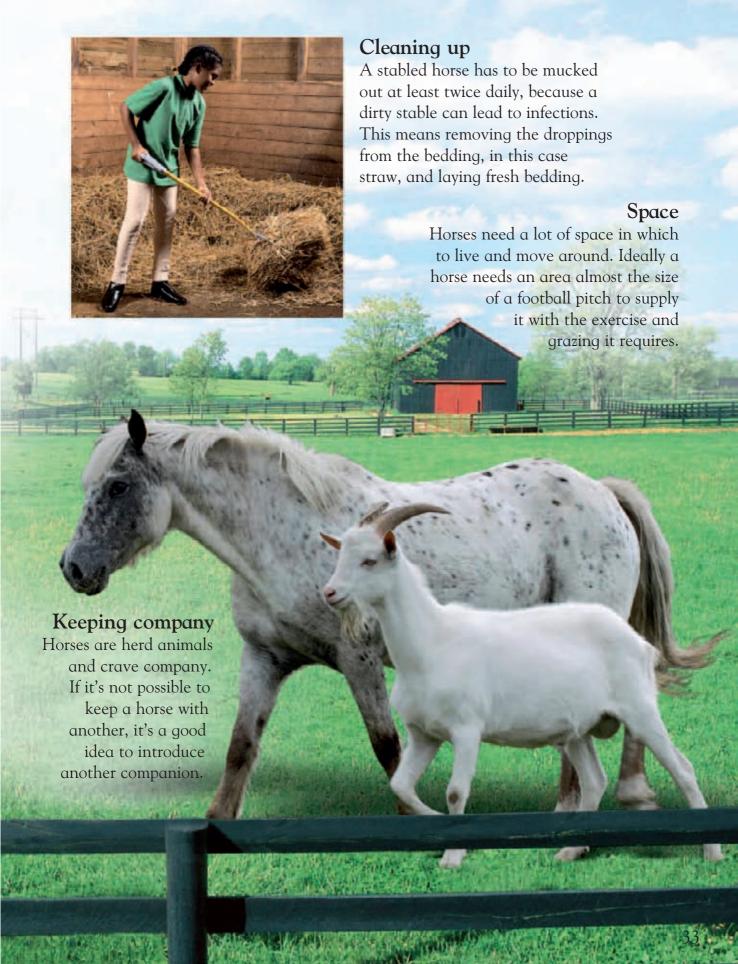
Some horses live out, in a field with a shelter. Others are stabled. A stable needs a thick, clean bed. This may be straw, wood shavings, shredded newspaper, or hemp.

> A salt lick supplies a horse with salt as and when it's needed.

> > Apple

Time for dinner

A horse drinks about 30 littles To sallons or marer per day. An active horse requires certain foods in addition to grass and hay to keep its energy levels high. Many horses receive compound foods, which are mixes of food types.



Xenophon was a Greek soldier and

writer who suggested the use of a

more thoughtful approach to horses.

Horse whispering

Horse whispering is all about learning to communicate with a horse by first understanding why horses act the way they do. Its use dates back at least to 350 BCE when a Greek writer, Xenophon, wrote On Horsemanship.

Body language

Most human communication is non-verbal. Your body language talks, and it talks loudly to a horse. How you present yourself,

where you look, how big or small you seem, and your tone of voice are important.





First steps

For a horse to respond well to a trainer, it has to get used to being handled. It's best to do this from a foal's first year. How a foal is handled will have an effect on how it will behave when fully grown.



Behave!

A foal is disciplined with a quick nip. The foal learns to behave, because it wants the mare's protection. Some horse trainers build on this instinctive behaviour, encouraging through frequent praise and reward.

AN EARLY HORSE WHISPERER

The story goes that some 2,300 years ago, 12-year-old Alexander the Great tamed the mighty black stallion Bucephalus by recognizing that the horse was afraid of its own shadow and so turning it to face the Sun. His father gave him the mighty horse as a reward.





Gaining trust

Once a horse trusts its trainer, it will face all sorts of unexpected things, as shown by this horse's relaxed reaction to a large ball.

Follow the leader

Horse whispering depends on recognition that the horse craves companionship and protection. Most horses want to follow and not lead. If they believe a person is a safe leader, they will follow.





On the lunge

For your first few lessons, your pony will be led by someone on a lead rope. It's also good, later on, to have a few lessons on a long lunge rein. On the lunge, while your teacher controls the horse, you can concentrate on finding your balance in the saddle.



Sit up! Relax!

As you learn to ride, your teacher will suggest ways of using your legs, or using your weight. Learning to use aids – legs, hands, voice, and body weight – is an important step towards becoming a more experienced rider.





Going up... coming down

Always mount and dismount from the left-hand side of a horse and ask someone to hold the horse. There are different ways to dismount. One method is to take both feet out of the stirrups and swing your right leg over the back of the horse, then spring down.

At a glance: first steps



Once you have mounted, you have to check your stirrups are the correct length. Your instructor will help you learn how to adjust them yourself.



To start walking: look ahead and close both legs gently against the horse's sides. Some horses will respond to you saying "walk on".



To turn: look where you want to go, so you position your weight. To turn left, squeeze gently on the left rein and also the left leg. Allow the right rein to slacken slightly so the horse's head can turn.

Riding styles English or Western? Horses are ridden in one of two very different ways. The English style

English or Western? Horses are ridden in one of two very different ways. The English style is more formal, while Western riding developed in parts of the world where horses are traditionally used to herd cattle.

Comfort riding

Western riding was developed by cowboys, who needed a comfortable means of spending long hours in the saddle. The horse is controlled largely by the rider's weight.

The leg is pushed forward.

Cantle

Western saddle

Pommel

Used for Western riding, these saddles are used on working horses on cattle ranches throughout the United States.

What sort of horse?

Loose reins

Western reins are held loosely

is steered by laying

in one hand and the horse

them against the neck.

No noseband

It's called neck reining.

Large

brimmed

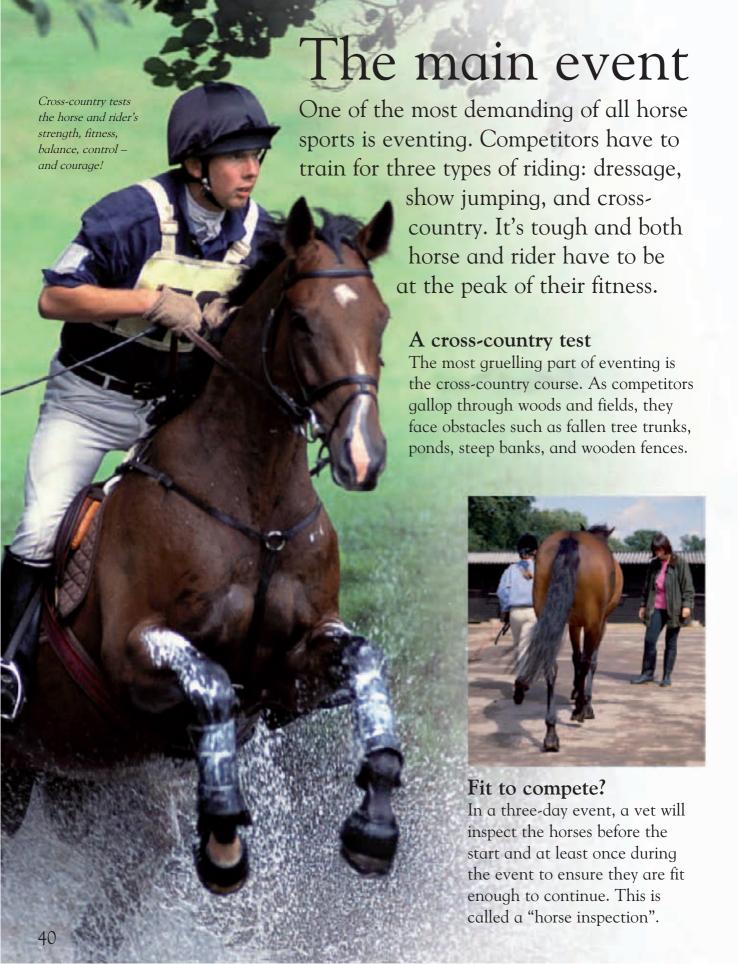
All horses can be trained to respond to Western Riding, but the most popular in use in North America is the American Quarter Horse.



Fender.

Leather









Chariot racing

raced at funeral games in memory of heroes and kings of ancient Greece.

War chariots were first

A day at the races

From chariot races at the Colosseum in ancient Rome to steeplechasing today, the thrill of horse racing has attracted huge crowds for thousands of years. Racing demonstrates the full power and speed of a horse at the peak of its fitness.

Flat racing tests speed, skill, and strength.



Flat racing is all about speed. It takes place on flat ground, with no obstacles, and is an internationally popular event that depends on the Thoroughbred. Flat race jockeys have to be light in weight, and are therefore usually shorter than jump jockeys who ride in steeplechases.

The Roman emperor Nero took part in a chariot race at the Olympic Games in 67 CE. However, the other chariots had four horses, while his had ten. When he fell out of his chariot, the other teams waited for him to get back in, and let him win. They were scared of him!



Harness racing

This type of racing is popular in the US, Europe, Australia, and New Zealand. A horse pulls a two-wheeled cart called a sulky, and this is where a driver sits. The horses run on a fixed gait, which can be a trot or a pace.

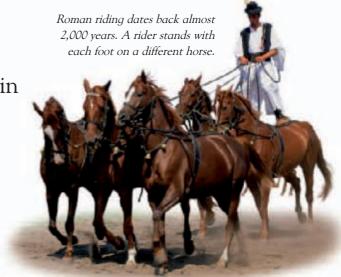


Horse games

Horses have helped human beings in so many ways over the centuries. But horses and humans also have fun together through different sports and games.

The game of kings

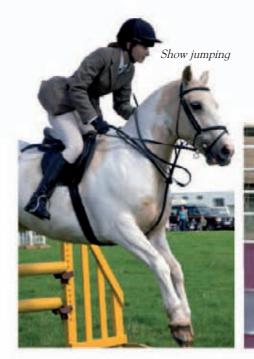
Polo is like playing hockey, but on a horse. Each team of four players has to hit a ball into the other team's goal to win a point. The match is played in short rounds called chukkas.



For my next trick...

Trick riding sees a rider performing fabulous stunts, usually on a galloping horse or horses. Stunts like this take years of training to perfect.



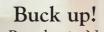


Fun and games

Many children – and adults – enjoy gymkhana games, racing against opponents on short obstacle courses that test their riding skills and stamina. From barrel racing to the bending race, these games are fast and fun.

Best in show

Rosettes are common at many horse shows, awarded for best of breed and turnout or to the winning horse and rider in a gymkhana event. Colours vary from country to country.



Barrel racing

Popular in North America, rodeo is a sport that tests the skills of a cowboy, and dates back to the nineteenth century. Events include saddle-bronc riding, bareback riding, bull riding, steer wrestling, calf roping, and team roping. Some countries ban rodeo events.

Bending race

Glossary

Here are the meanings of some words it is useful to know when learning about horses.

aid The means by which a rider communicates with a horse, using, for example, weight, legs, voice, and hand.

bit The part of a bridle that fits into a horse's mouth.

bridle The tack a horse wears on its head.

coldblood A name used to describe heavy horse breeds such as the Jutland and Shire.

colt A young male horse.

conformation The shape of a horse or pony. Good conformation means a horse is well proportioned.

dressage A method of improving a horse's obedience. It consists of carefully controlled movements that demonstrate the balance and agility of a horse and rider.

eventing A competition that includes cross country, show jumping, and dressage.

farrier A person who shoes horses.

feral An animal descended from domestic ancestors, but which now lives in the wild with limited or no human intervention.

filly A young female horse.

flat racing A type of horse race that is carried out on a flat course with no jumps or obstacles.

flehman A curling of the top lip that allows a horse to taste the air around it.

foal A horse that is under one year of age.

forelock The hair that grows on a horse's forehead.

gait The pattern of a horse's leg movements. All horses can walk, trot, canter, and gallop.

girth The measurement around a horse's body where the girth holds the saddle. Also the name of the strap that holds the saddle in place.

gymkhana Competitive games between teams of riders and horses.

hack A ride in the open and not in a school.



hand A unit of measurement for horses. It is used to describe a horse's height at its withers. One hand is 10 cm (4 in).

hinny A cross between a male horse and a female donkey.

hoof The hard part of a horse's foot.

horsepower A unit of power that measures the pulling power of an engine.

hot blood A Thoroughbred, Barb, or Arab horse, or one largely descended from these.

jodphurs Comfortable riding trousers.

lungeing A means of exercising a horse from the ground, using a long rein. The horse moves in a circle around the trainer.

mane The hair that grows on the back of a horse's neck.

mare A female horse that is more than four years old.

mule A cross between a male donkey and a female horse. Males cannot reproduce but some females can.

points The external parts of a horse, such as its poll, withers, and chestnut.

pony A horse that is less than 14.2 hands high.

reins These attach to a bridle and are used in control a horse.

rodeo A competition popular in North America, in which cowboys demonstrate skills that are related to riding and handling cattle.

saddle A piece of tack that the horse wears on its back.

stallion A male horse, used for breeding.

steeplechase Thoroughbred race traditionally across fields over fences and ditches, but now often held over a race course.

stirrups These are used to support the rider's feet and hang from the saddle.

tack Name for the equipment used for riding, such as a saddle and bridle.

warmblood A horse such as the Hanoverian whose ancestry includes hotbloods and coldbloods, .

withers The top of a horse's shoulders.

zedonk A cross between a zebra and a donkey

zorse A cross between a horse and a zebra.





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