2025-2026
Citrus County Fair
Horse
Skill-a-thon Study Guide

Citrus County Horse Skill-A-Thon

A "Skill-A-Thon" is an excellent method of involving FFA and 4-H members in challenging, learn-by-doing activities. This program of helping youth develop both their life skills and steer project skills is designed as a series of mini-learning stations. Use this guide to prepare for the skill-a-thon at the county fair.

OBJECTIVES:

1. To provide a learning laboratory which will enhance knowledge of the horse industry.
2. To help youth feel more comfortable communicating with an adult.
3. To gain self-confidence and skills in one-on-one communication.
4. To develop responsibility for completing a project.
5. To develop critical thinking and problem-solving skills.
6. To provide additional opportunities to recognize youth for their accomplishments.

To have FUN!

TOPICS:

The topics are specific for each of the Fair's age groups for skill-a-thons.
Age as of September 1st, 2025.

J: Junior (8-10 yrs.)
I: Intermediate (11-13 yrs.)
S: Senior (14-18 yrs.)

1. Horse Breeds **(J, I, S)**
2. Horse Body Parts **(J, I, S)**
3. Grooming Tools **(J, I, S)**
4. Parts of the Hoof **(J, I, S)**
5. Nutrition **(J, I, S)**
6. Digestive System **(I, S)**
7. Body Condition Score **(I,S)**
8. Steps for Increasing BCS **(I,S)**
9. Equine Dentistry **(I, S)**
10. Equine Dental Care **(S)**
11. Breeds of Horses Puzzle **(Just for Fun)**

This Study Guide was updated 12/2021

(J, I, S)

Horse Breeds

Breed is defined as a group of horses with a common origin and possessing certain distinguishable characteristics that are transmitted to the offspring, such that the offspring possess the parents' characteristics.

Friesian

Appaloosa

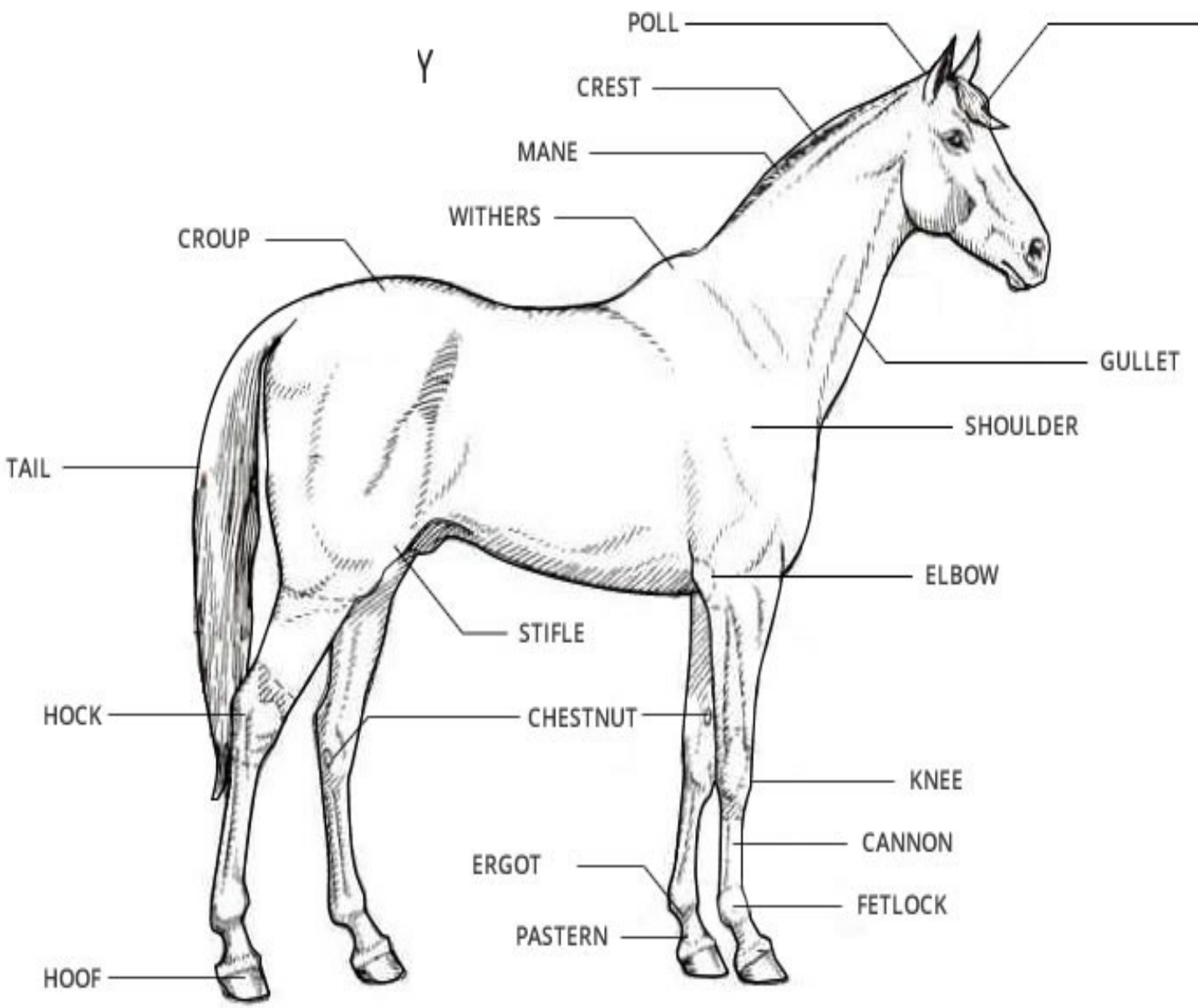
Mustang

Thoroughbred

Akhal-Teke

Paso Fino

Parts of the Horse



(J, I, S)

Grooming is a very important part of your horse's health. A good work over with a curry comb and brush will remove unsightly dandruff and dirt which causes saddle sores. Grooming also gives your horse's coat a shine and makes your horse feel good.

Hoofpick – Used to remove dirt, rocks and manure from the horse's hooves. The hoofpick is held in the palm of the hand with the point away from the body. Always clean the hoof working away from yourself.

Curry Comb – Used on horse's body in a circular motion to bring the dirt to the surface. Curry comb should not be used on the face, legs, or any body area on the horse.

Soft Brush – Used on the face and body to remove surface dirt and put a shine on the horse's coat.

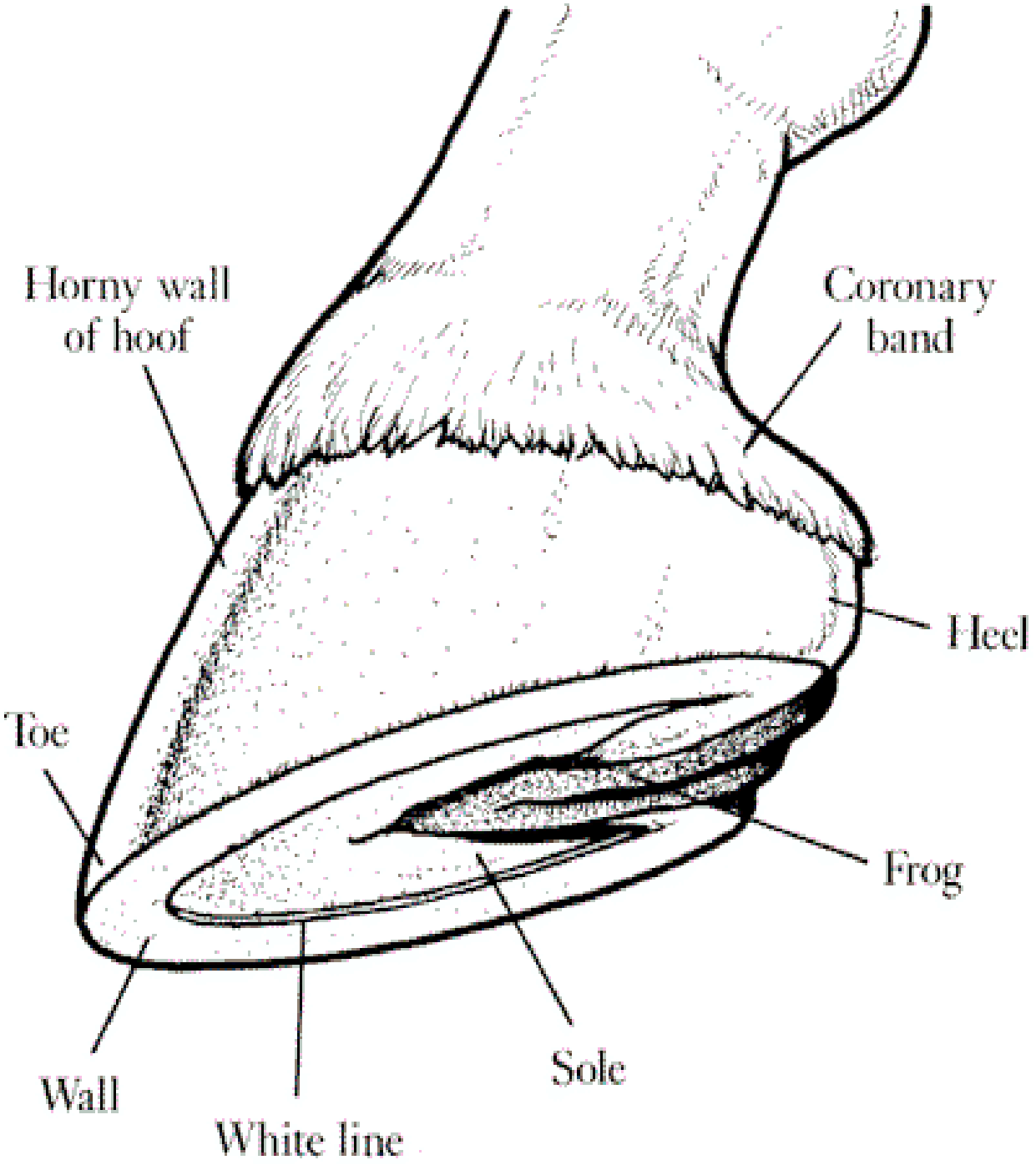
Mane and Tail Comb – Used on the mane and tail to remove tangles. Start at the bottom and work towards the top, removing tangles as you go.

Hoof Level – Used to determine the correct angle of the hoof.

Hoof Tester – Used by farriers and veterinarians to test for a pain response, usually indicated by the horse as a withdrawal of the limb. Additional information about the tissues of the hoof, and hoof texture can be determined.

(J, I, S)

Parts of the Hoof



(J, I, S)

Nutrition

There are five distinct classes of nutrients supporting particular body functions: water, energy, protein, vitamins, and minerals. The nutritive value of any ration is determined not by the feedstuffs included, but by the palatability of the diet and the nutrients that the feedstuffs supply to the horse.

Water intake is essential to body temperature regulation. A mature horse will drink at least one gallon of water per 100 pounds of body weight per day or about 10 gallons a day for an 1000-pound horse. Many horses are managed adequately with fresh, clean, water offered twice each day. Without adequate water, horses have increased chances of colic and will decrease food intake.

Energy is derived from carbohydrates, fats, and even protein; but, because of their abundance in plant feeds, carbohydrates are the horse's major source of energy. The sugars and starches are easily digested and cellulose very poorly digested, but the ability to digest cellulose increases as the animal matures, when the bacterial population in the digestive tract increases.

Fats are an excellent source of energy for the animal and can be added up to 10% of the diet to increase energy and make the feed more palatable. The body uses energy as fuel for all physical activity, growth, milk production, and repair. A deficiency of energy will cause slow growth, sluggish activity, and general weakness. Excess energy will become body fat, and a weight problem can follow. In a good, well-balanced ration, carbohydrates and fats should be the only source of energy; they are expressed in requirement tables together as energy.

Protein is needed by the horse for growth, muscle development, reproduction, lactation, repair of body tissues, and skin and hair development. If energy in the diet is low, protein can also be converted to energy.

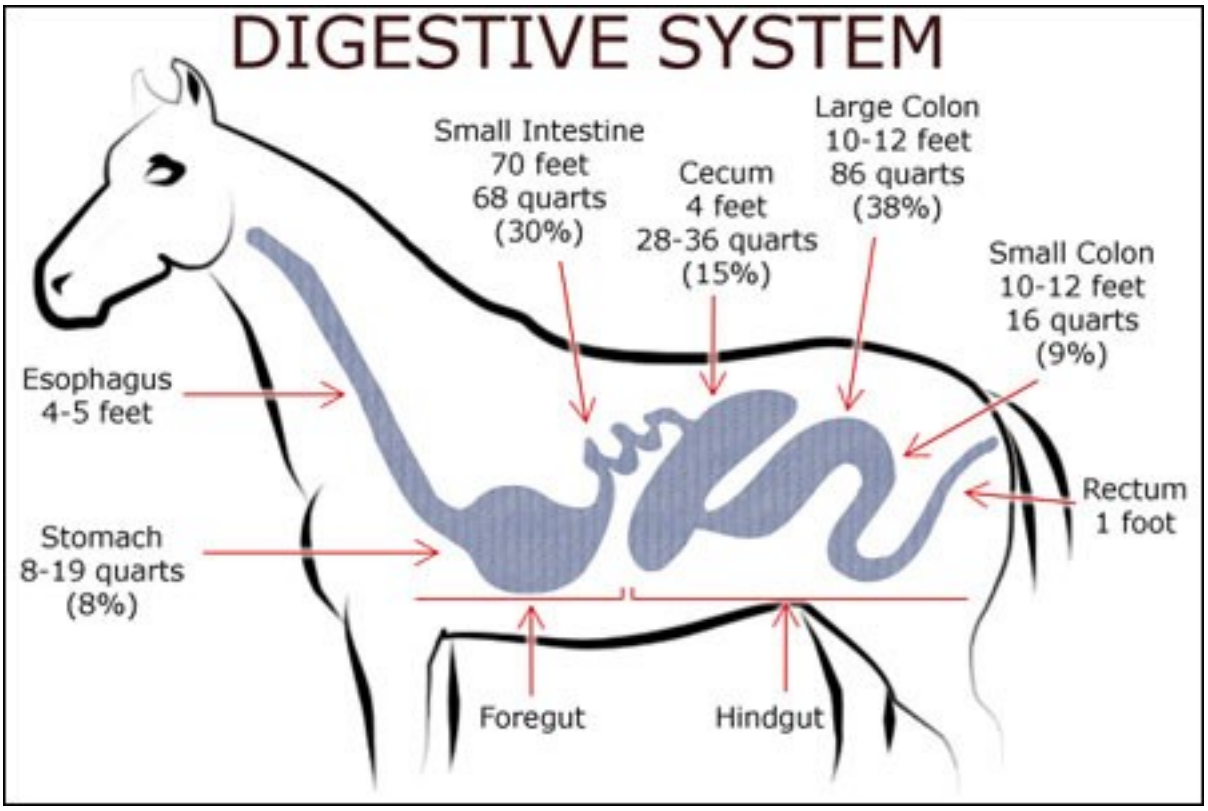
Feeding excessive protein to horses with the belief that it will increase muscle development is not valid and is very expensive. Excess protein (that fed above the requirement) is broken down into energy (calories) and a nitrogen by-product called urea, which is excreted in the urine causing the horse to urinate and drink more.

Vitamins play a variety of roles in the body. While only a minute amount of each may be needed, a deficiency can cause severe side effects or illness once the reserves are depleted. In general, a good, balanced diet of green hay, grain, and sunlight will provide adequate amounts of vitamins for the horse unless under a large degree of stress.

Mineral content of a horse's diet is determined by the soil and water in the area, the quality of feed, and the proportion of grain to hay in the diet.

(I, S)

Digestive System



Movement through Digestive System

From the mouth, the forage travels down the esophagus. The esophagus has one-way peristaltic action which means that horses cannot regurgitate their food and therefore can't "chew their cud". They also cannot burp or pass gas through their esophagus.

From the esophagus, forage travels to the stomach. A horse's stomach is approximately 4 gallons and is the smallest in relation to its size of any other livestock species. The stomach secretes acid (stomach acid) and specific enzymes.

In the small intestine, some nutrients are absorbed and bile is secreted directly from the liver into the first part of the small intestine. The horse's large intestine accounts for 60% of the total volume of the digestive tract. The cecum contains active bacteria similar to the microbes of the rumen. Bacterial breakdown of cellulose and other carbohydrates result in the production of volatile fatty acids (VFAs). VFAs are a source of energy similar to glucose and other sugars. The small colon is the primary site of water absorption and the rectum is where manure is expelled.

(I, S)

Body Condition Score

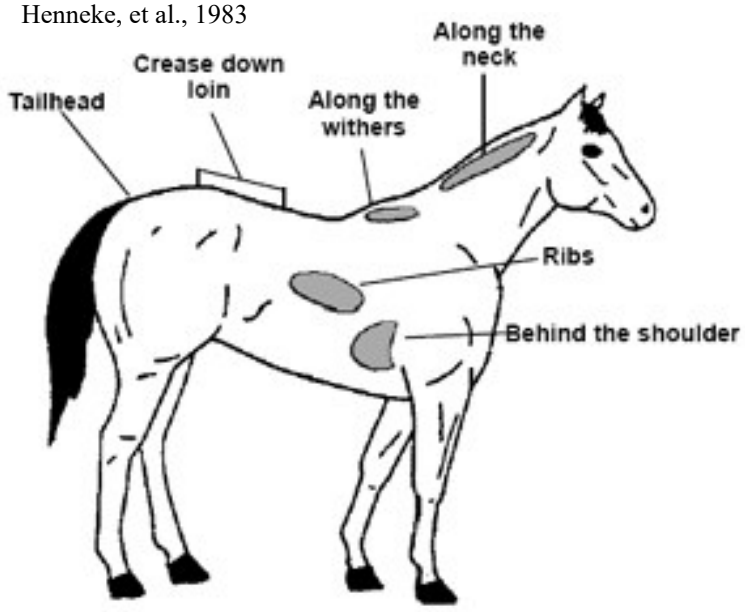
The Body Condition Score or BCS is a method of estimating the amount of fat on a horse's body. The method was developed at Texas A&M University as a way for nutritionists, veterinarians, horse farm managers, and horse owners to evaluate nutritional status. The degree of condition is rated on a scale of one to nine (see Table on next page). The rating is based on handling (palpation) and visual assessments of fat deposits. The areas evaluated are illustrated on the next page.

The ideal BCS for a given horse will depend on the stage of production and should range between four and seven. A BCS of four would be expected in horses in heavy race training. A BCS of five is recommended for growing and riding horses. The BCS of six is ideal for mares going into the breeding season. Before foaling, mares should have ample body fat reserves with a BCS of seven.

(I, S)

Body Condition Score

Henneke, et al., 1983



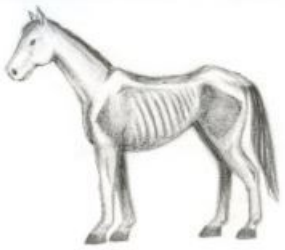
Condition	Neck	Withers	Shoulder	Ribs	Loin	Tailhead
1 Poor	Bone structure easily noticeable	Bone structure easily noticeable	Bone structure easily noticeable	Ribs protruding prominently	Spinous processes projecting prominently	Tailhead, pinbones, and hook bones projecting prominently
2 Very Thin	Bone structure faintly discernible	Bone structure faintly discernible	Bone structure faintly discernible	Ribs prominent	Slight fat covering over base of spinous processes. Transverse processes of lumbar vertebrae feel rounded. Spinous processes are prominent	Tailhead prominent
3 Thin	Neck accentuated	Withers accentuated	Shoulder accentuated	Slight fat over ribs. Ribs easily discernible	Fat buildup halfway on spinous processes, but easily discernible. Traverse processes cannot be felt	Tailhead prominent but individual vertebrae cannot be visually identified. Hook bones appear rounded, but are still easily discernible. Pin bones not distinguishable
4 Moderately Thin	Neck not obviously thin	Withers not obviously thin	Shoulder not obviously thin	Faint outline of ribs discernible	Negative crease (peaked appearance) along back	Prominence depends on conformation. Fat can be felt. Hook bones not discernible
5 Moderate (Ideal Weight)	Neck blends smoothly into body	Withers rounded over spinous processes	Shoulder blends smoothly into body	Ribs cannot be visually distinguished, but can be easily felt	Back is level	Fat around tailhead beginning to feel soft
6 Moderately Fleshy	Fat beginning to be deposited	Fat beginning to be deposited	Fat beginning to be deposited	Fat over ribs feels spongy	May have a slight positive crease (a groove) down back	Fat around tailhead feels soft
7 Fleshy	Fat deposited along neck	Fat deposited along withers	Fat deposited behind shoulder	Individual ribs can be felt with pressure, but noticeable fat filling between ribs	May have a positive crease down the back	Fat around tailhead is soft
8 Fat	Noticeable thickening of neck	Area along withers filled with fat	Area behind shoulder filled in flush with body	Difficult to feel ribs	Positive crease down the back	Fat around tailhead very soft
9 Extremely Fat	Bulging fat	Bulging fat	Bulging fat	Patchy fat appearing over ribs	Obvious crease down the back	Bulging fat around tailhead

(S)

Body Condition Score

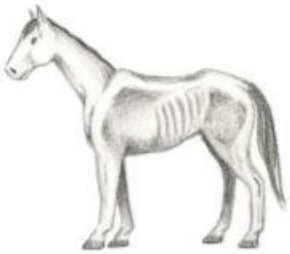
Henneke, et al., 1983

Poor: Horse extremely emaciated. Spinous processes, ribs, tailhead, tuber coxae and ischii projecting prominently. Bone structure of withers, shoulders and neck easily noticeable. No fatty tissue can be felt.



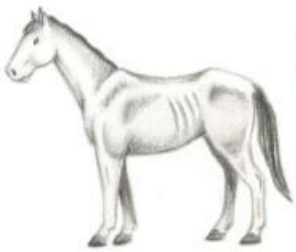
1

Very Thin: Horse emaciated. Slight fat covering over base of spinous processes, transverse processes of lumbar vertebrae feel rounded. Spinous processes, ribs, tailhead, tuber coxae and ischii prominent. Withers, shoulders, and neck structures faintly discernible.



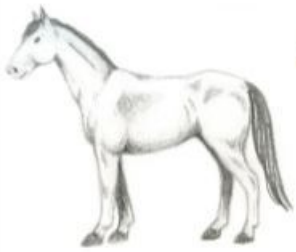
2

Thin: Fat build up about halfway on spinous processes, transverse processes cannot be felt. Slight fat cover over ribs. Spinous processes and ribs easily discernable. Tailhead prominent, but individual vertebrae cannot be visually identified. Tuber coxae appear rounded, but easily discernible. Tuber ischia not distinguishable. Withers, shoulders and neck accentuated.



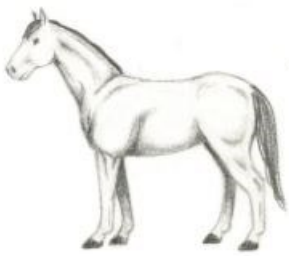
3

Moderately Thin: Negative crease along back. Faint outline of ribs discernible. Tailhead prominence depends on conformation, fat can be felt around it. Tuber coxae not discernible. Withers, shoulders and neck not obviously thin.



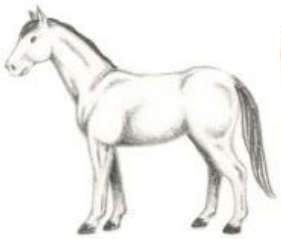
4

Moderate: Back level. Ribs cannot be visually distinguished but can be easily felt. Fat around tailhead beginning to feel spongy. Withers appear rounded over spinous processes. Shoulders and neck blend smoothly into body.



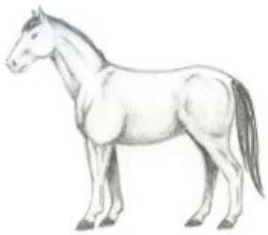
5

Moderately Fleshy: May have slight crease down back. Fat over ribs feels spongy. Fat around tailhead feels soft. Fat beginning to be deposited along the side of the withers, behind the shoulders and along the sides of the neck.



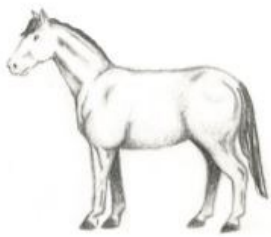
6

Fleshy: May have crease down back. Individual ribs can be felt, but noticeable filling between ribs with fat. Fat around tailhead is soft. Fat deposited along withers, behind shoulders and along neck.



7

Fat: Crease down back. Difficult to feel ribs. Fat around tailhead very soft. Area along withers filled with fat. Area behind shoulder filled with fat. Noticeable thickening of neck. Fat deposited along inner thigh.



8

Extremely Fat: Obvious crease down back. Patchy fat appearing over ribs. Bulging fat around tailhead, along withers, behind shoulders and along neck. Fat along inner thighs may rub together. Flank filled with fat.

9

(J, I, S)

Steps for Increasing BCS

- **Weight gain is a slow process.** For a horse 15 to 15 hands tall, a single body condition increase may be approximately 100-165 lbs of body weight and take 8 weeks or more to increase depending on consistency of calories fed above maintenance.

- **Changes should be made gradually.** The digestive system of the horse is sensitive to changes in the diet. Horses are prone to colic or founder when abrupt changes are made

- **Maximize forage.** Early maturity hay with a high leaf-to-stem ratio can promote weight gain. Increasing the intake of good quality hay is preferred over adding carbohydrate-based grains and concentrates. Providing free choice access to good quality hay is the cornerstone for healthy weight gain.

- **Adding alfalfa**, either as loose hay, cubes or pellets can be beneficial in adding weight.

- **Fats** such as oil contain a more concentrated way to provide calories in the diet. Flaxseed oil, such as Platinum Healthy Weight, is rich in omega -3 fatty acids and is an excellent source of anti-inflammatory calories and antioxidants.

- **Probiotics** are an extremely useful tool for digestive health as they nurture the beneficial microflora in the gastrointestinal tract.

- **Weight:** An equine scale is best for measuring equine weight. However, a simple weight tape can also give a good estimate of the horse's weight. Taking pictures of the horse in the same background can also be a good visual of progress. Try taking pictures from different angles such as from the front, from behind and a side angle. As it is a slow process, re-assess weight every 3-4 weeks to monitor progress.

(I, S)

Equine Dentistry

Horses evolved as grazing animals and their teeth are perfectly adapted for that purpose.

Incisors - These are the front teeth. They function to shear off grass.

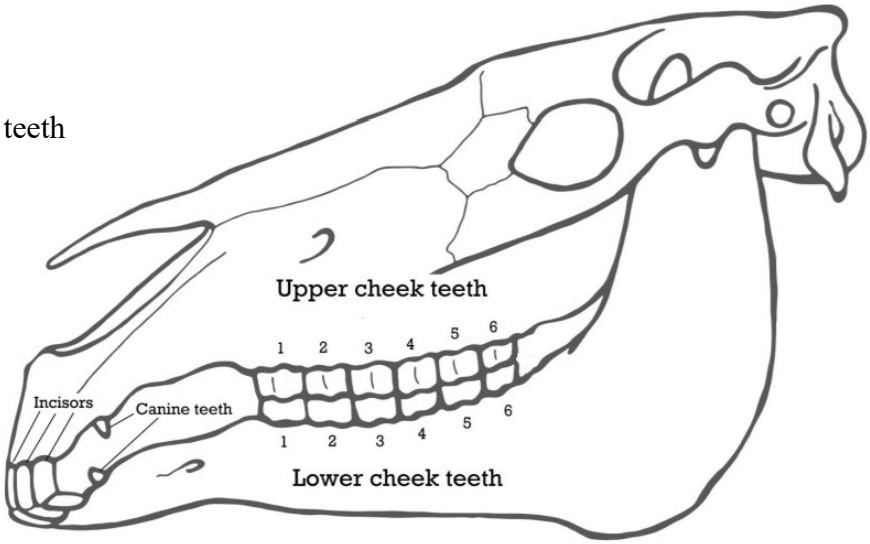
Cheek teeth - These have wide, flat graveled surfaces that grind the feed to a mash before swallowing.

Like humans, horses get 2 sets of teeth in their lifetime. The first baby teeth may erupt before a foal is born. The last baby teeth erupt at around 8 months of age. The baby teeth begin to be replaced by adult teeth at around 2.5 years. By age 5, most horses have all of their permanent teeth. An adult male horse has 40 permanent teeth. A mare may have between 36-40 teeth because mares are less likely to have canines.

How many teeth?

Adult male - 40 teeth

Adult female - 36 to 40 teeth



Equine Dental Care (S)

Floating is the process of smoothing or removing sharp points on the outer edge of upper cheek teeth and inner edge of lower cheek teeth (see diagram on previous page).

How Horses Chew

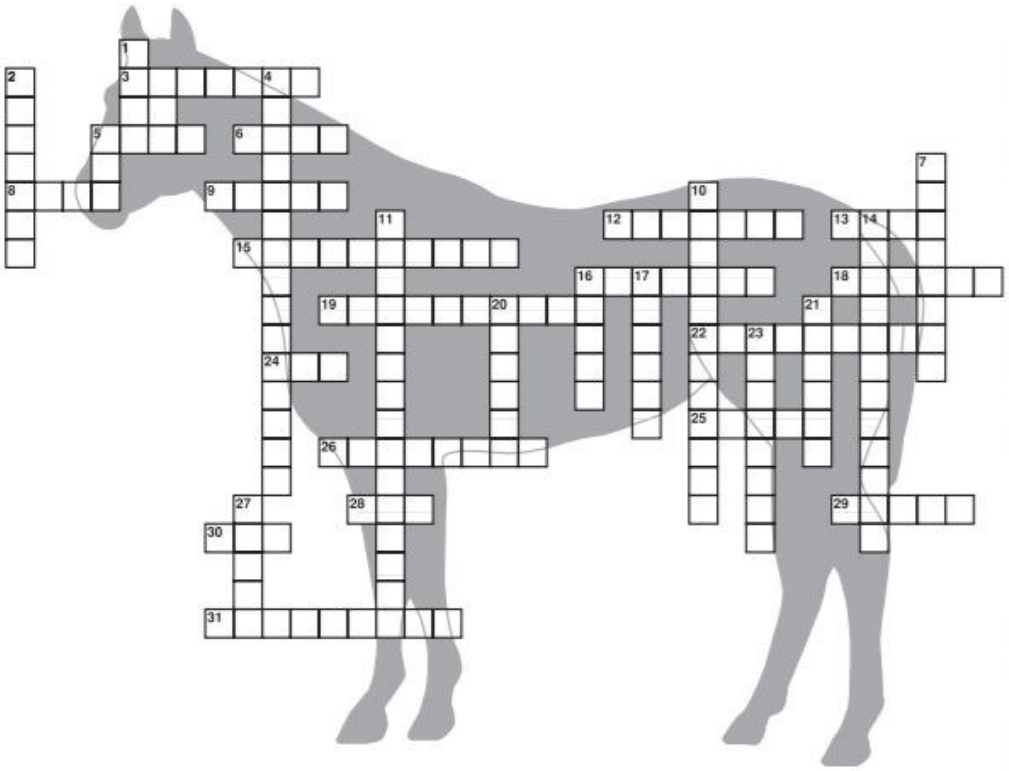
The anatomy of the horse's teeth is unusual in that the upper cheek teeth are wider apart than the lower cheek teeth. There would be little contact with the chewing surfaces if the horse chewed up and down. However, horses chew side-to-side, resulting in good occlusion or contact with upper and lower cheek teeth. This position of the teeth combined with the side-to-side chewing causes the surface of the teeth to wear at an angle and leave sharp points. This can eventually impede optimum chewing and result in tooth or mouth pain.

Continuous Growth

One interesting fact about horses is that, unlike humans, their teeth continue to grow throughout their lives. The condition of their teeth is dynamic, constantly changing due to diet and age. Younger horses change faster, especially since most baby teeth are lost and get replaced by adult teeth between the ages of 3–5 years. This is why regular dental procedures are needed—float your 3-year-old's teeth today, in 6 months some baby teeth are lost, new adult teeth have erupted, and they may need some work.

Maintaining good dental care is the responsibility of the horse owner and the horse rider. If you lease a horse, notify the owner immediately when issues arise.

Breeds of Horses Puzzle



Across

3. Oldest pure breed of horse.
5. Any equine smaller than 14 1/2 hands.
6. One type of Paso horse comes from this South American country.
8. Abbreviation for American Quarter Horse Association.
9. Another name for a pinto colored horse.
12. The special gait of the Missouri Fox Trotter.
13. A parade horse should _____ high and lightly.
15. A breed originating in Hanover, Germany.
16. There are both horses and ponies in this breed and they are noted for their high action.
18. Chincoteague _____ have an interesting history.
19. An Irish pony.
22. Breed of speckled and spotted horse.
24. Another name for buckskin color.
25. Horses of this color are almost black.
26. One of the smaller pony breeds.
28. The Cleveland _____ was an important harness horse before the auto.
29. A medium-sized pony from the British Isles.
30. Abbreviation for Appaloosa Horse Club.
31. A breed of draft horse from France.

Down

1. The _____ Fino is a South American horse with a smooth gait.
2. Early horses in North America.
4. This breed is noted for its flashy showiness and several gaits (two words).
5. Abbreviation for Pony of the Americas.
7. Austrian breed noted for its ability in dressage.
10. Breed of harness racers—trotters and pacers.
11. Fast walking horse developed on Southern plantations (two words).
14. This breed was developed in England for its long-distance speed.
16. Horses are measured in.
17. A slow, collected gallop.
20. The first American breed and only breed ever started by a single horse.
21. Breed of white horses.
23. Golden horse with white mane and tail.
27. The largest draft horse.

OREGON STATE UNIVERSITY
EXTENSION SERVICE

4-H 1306
Reprinted February 2003

Answers

Across

3. Arabian
5. Pony
6. Peru
8. AQHA
9. Paint
12. Foxtrot
13. Step
15. Hanoverian
16. Hackney
18. Ponies
19. Connermara
22. Appaloosa
24. Dun
25. Brown
26. Shetland
28. Bay
29. Welsh
30. AHC
31. Percheron

Down

1. Paso
2. Mustang
4. American Saddler
5. POA
7. Lippizan
10. Standardbred
11. Tennessee Walker
14. Thoroughbred
16. Hands
17. Canter
20. Morgan
21. Albino
23. Palomino
27. Shire