



The Form of the Horse

Students will learn the importance of good conformation, how horse anatomy contributes to its physical ability and how anatomy developed through interaction with the environment.



Pair students together and have them stand one in front of the other. The student in front should hold their head still, looking forward. On your command, students in the rear should take small steps to the right until the student in front indicates they can see movement to the side. Try stepping to the left. Reverse positions and try the same action. Describe how horses perceive movement. Discuss the placement of eyes high on the head for detection of threats and predators. How do horses react to being approached from behind or from directly ahead?



Take a walk to a viewpoint on the farm. Describe the kinds of animals that may have lived in this landscape 10,000 years ago. Look out across the fields at grazing horses and describe a saber-toothed tiger, a short-faced bear, and dire wolf. Imagine the grasses that would have grown almost four feet high and concealed predators. Long necks, excellent peripheral vision, and a fast escape would have been extremely necessary. You may want to carry illustrations of these animals to share.

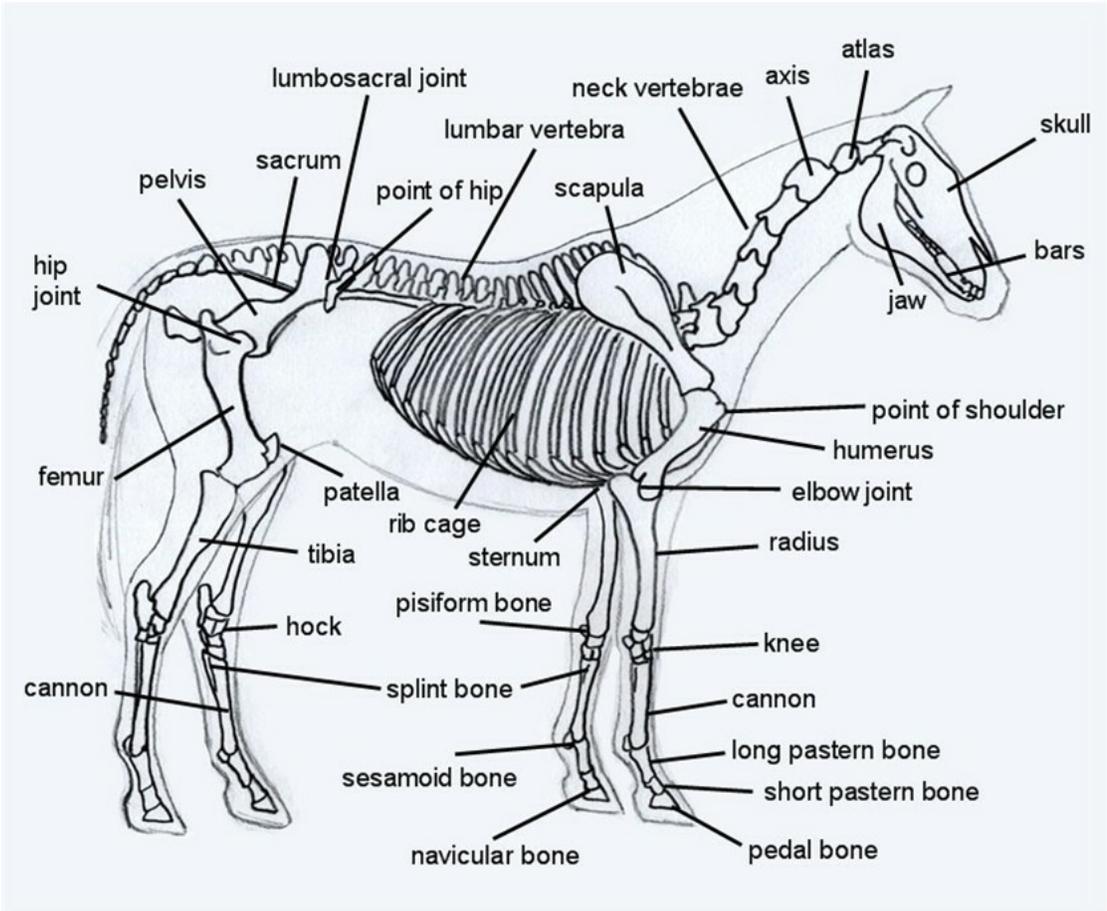
As you walk towards the stable to meet the equine educator, ask students to be aware of what muscles carry them along. How do legs and hips work together in order to move their bodies forward? What are the largest muscles in the human body? Why did humans develop large thigh muscles? How did humans survive in the Ice Age landscape in North America?

Explain

Introduce the equine educator to students. Review the rules for moving around horses safely, and remind students how important it is to be seen, calm, and kind.

With a large felt panel that contains the outline of a horse, introduce horse muscular anatomy with different colored felt pieces that fit into the image. Mention the purpose of larger components but don't overwhelm students with too much detail. Keep it fun and interesting! Ask students to compare and contrast their own muscular anatomy with the horse.

Large Bones (white felt) include the major skeletal features listed here:



Muscles (red felt) may include Abdominal, Biceps, Deltoids, Erector Spinae, gastrocnemius & Soleus, Gluteus, Hamstrings, Latissimus Dorsi & Rhomboids, Obliques, Pectoralis, Quadriceps, Trapezius, Triceps. Find a good reference to share with students who can locate where on the horse image to place these felts with you.

Place the equine educator horse on a lunge line. Explain to the students what you will be doing and arrange students safely around the lunge area. As the horse circles, explain the term **conformation**. A formal definition is “**Equine conformation** evaluates the degree of correctness of a horse's bone structure, musculature, and its body proportions in relation to each other. Undesirable **conformation** can limit the ability to perform a specific task.”

How do you check for the degree of conformation? What does it mean to “have an eye” for horse **conformation**?



Students will work on developing their “eye” for horse conformation by comparing a group of horses with the equine educator’s horse. Conduct a mini-conformation clinic. Provide an additional 2-3 horses with volunteer handlers. Ask the volunteers to introduce their horse by name and a little about their breed, background, and use on the farm.

Divide students evenly into groups that equal the number of horses, to include the equine educator. Ask teachers or chaperones to accompany the groups on a conformation walk to visit and inspect each of the horses. Students may ask for help from the handlers as they try to understand important aspects of conformation.

Provide a clipboard for each group with conformation points to inspect. Rank horses on the best conformation. Decide on a scoring system that will work best for the class, such as point totals or numerical ranking. Share results after the walk.

Balance - Neck, back, and hip of equal length = a good athlete

Throatlatch - Clean and slender = easy to work head angles for control

Topline and Shoulder - Slope and angle = length of stride

Back - Strong and short with distinct withers = good performance and sound

Head and Face - Alert, short ears, wide spaced eyes = perceptive and attentive

Croup - long, strong hip = works from his hind end, stops well, good athlete

Shoulders - equal angle with hips = coordinated and travels well

Legs - well defined, straight, not too thin - sound and steady



Explain rules for working and around horses. Distribute grooming items and assign a horse to each group. Have students take turns grooming their horse on the parts of horse anatomy you name. Students should be able to locate and gently groom major muscle groups, head, neck, legs with guidance from volunteers.

Teaching Horse Anatomy Alternatives:

In addition to using a felt board, there are many other ways to illustrate and interact with a lesson on horse anatomy.

- With proper materials and non-toxic paints, a very patient pony may serve as a living anatomy lesson as you and your students paint the major anatomical features on her flank, legs, and lower neck.
- A bed sheet spread on the ground can be used as a floor chart. You won't have to worry about hanging anything or finding ways to attach parts to a vertical surface.
- Paint a section of barn or stable wall with chalkboard paint and create a permanent horse anatomy diagram that you and your students can add colored chalk diagrams to.