

STANISLAUS COUNTY  
4-H HORSE PROJECT STUDY GUIDE

LEVEL 4

*March 2010*

Use this study guide with the

**CERTIFIED HORSEMANSHIP ASSOCIATION**  
**Composite Horsemanship Manual**

## HORSE PROJECT STUDY GUIDE LEVEL 4

### HORSE BEHAVIOR PROBLEMS:

Two common problems that can be caused by teasing a horse with food, feeding too many treats or playing with their lips and nose are \_\_\_\_\_ and \_\_\_\_\_. To correct this, you should \_\_\_\_\_ the horse's \_\_\_\_\_ hard immediately. Do not correct him by \_\_\_\_\_ his head or you may make him \_\_\_\_\_.

Kicking is a \_\_\_\_\_ and hard to correct. You should always have \_\_\_\_\_ for a horse's rear end. Correcting this problem should most likely be handled by a professional trainer.

If a horse tries to buck while you are riding you should \_\_\_\_\_ and drive your \_\_\_\_\_ into the saddle. Lift his \_\_\_\_\_ up and drive him strongly \_\_\_\_\_.

Horses \_\_\_\_\_ from things that scare or startle them. The best way to handle this is to put him \_\_\_\_\_, as soon as possible, without any fuss by \_\_\_\_\_ near the spooky object to let him \_\_\_\_\_. You can also \_\_\_\_\_ his head slightly away from it as he passes it and support him with your leg at the girth. If he is very frightened, let him \_\_\_\_\_, but do not let him \_\_\_\_\_. Encourage him to \_\_\_\_\_ up to it and \_\_\_\_\_ it, but not too quickly.

Most horses that run away are simply \_\_\_\_\_. Don't panic. Do sit \_\_\_\_\_ and \_\_\_\_\_. Shorten your \_\_\_\_\_ and use several hard \_\_\_\_\_. If there is room, pull \_\_\_\_\_ and turn \_\_\_\_\_ or turn \_\_\_\_\_ to tire him quickly. A horse may be hard to stop because his bit is too \_\_\_\_\_, too \_\_\_\_\_ or he has been \_\_\_\_\_ by a bit and may need careful biting and retraining.

A horse that stops and refuses to move is \_\_\_\_\_. When you feel him starting to hesitate, send him directly \_\_\_\_\_ or \_\_\_\_\_ him to the side. \_\_\_\_\_ him usually doesn't work. You can also make him \_\_\_\_\_ and \_\_\_\_\_ until he is bored and you decide to let him move.

If a horse rears with you by accident \_\_\_\_\_ and hold onto the mane or neck and when he comes down drive him \_\_\_\_\_. This problem can be caused by an \_\_\_\_\_ severe use of the bit.

A nervous habit of a stalled horse is \_\_\_\_\_. \_\_\_\_\_ the horse out more may help. \_\_\_\_\_ is an addiction horses may get, much like some people who bite their nails. This is not good for his \_\_\_\_\_ and may hurt his \_\_\_\_\_. \_\_\_\_\_ don't suck in air. This condition may be due to a lack of \_\_\_\_\_ or some essential \_\_\_\_\_ in their diet.

### HOOF CARE:

Horse's feet grow an average of \_\_\_\_\_ inch or \_\_\_\_\_ cm per month. They should be trimmed or have their shoes reset every \_\_\_\_\_. The need for shoes depends on the kind of \_\_\_\_\_, how \_\_\_\_\_ he works, and the \_\_\_\_\_ the horse works on.

Every rider should know how to tell if a horse is \_\_\_\_\_. \_\_\_\_\_ indicates pain in a leg or foot. If a front leg hurts, the horse will lift his \_\_\_\_\_ up as the sore leg hits the ground and will \_\_\_\_\_ his head as the good leg hits. If a hind leg hurts, he may hitch the \_\_\_\_\_ higher on the hurt side or he may drop his \_\_\_\_\_ lower to pull more weight to his shoulders.

An inflammation of the sensitive laminae under the wall of the hoof is called \_\_\_\_\_ or \_\_\_\_\_. It is very painful and can be caused by \_\_\_\_\_ grain or concentrates, grazing lush spring pasture or concussion to the \_\_\_\_\_.

Progressive degeneration of the navicular bone, navicular bursa and deep digital tendon is called \_\_\_\_\_ disease.

A hoof \_\_\_\_\_ is often shown by sudden lameness with no obvious signs.

A degenerative condition of inflammation of a joint and the surrounding tissues is called \_\_\_\_\_. It can be caused by excessive wear, \_\_\_\_\_, age and/or poor conformation.

A \_\_\_\_\_ is an injury to soft tissue and can be caused by \_\_\_\_\_ a horse beyond his training or from an \_\_\_\_\_.

An infection found in the frog of the hoof is called \_\_\_\_\_. It can be caused by standing in \_\_\_\_\_ stalls or being housed in \_\_\_\_\_ environments. It is recognized by a \_\_\_\_\_, grayish or \_\_\_\_\_ discharge and a very \_\_\_\_\_. If you find signs of thrush, pack the \_\_\_\_\_ with clean cotton and saturate it with diluted \_\_\_\_\_ or a commercial \_\_\_\_\_.

Horses that stand in \_\_\_\_\_ conditions may get a chapped, cracked, oozing condition called \_\_\_\_\_ or \_\_\_\_\_. To cure it, keep them out of \_\_\_\_\_ and \_\_\_\_\_ conditions, gently soak off the scabs, pat dry and treat with a \_\_\_\_\_.

### **SIGNS OF HEALTH AND SICKNESS:**

The major vital signs of a horse are appearance and \_\_\_\_\_. If your horse is unusually nervous and jumpy, his coat is dull or he is unwilling or unable to get up, he might be \_\_\_\_\_.

A change in your horse's \_\_\_\_\_, like losing the desire to eat or eating unusual things like dirt or hair can also be signs of an illness or a \_\_\_\_\_ in his diet.

The normal rectal temperature for a horse is \_\_\_\_\_, but can vary depending on the time of \_\_\_\_\_ and exercise.

A normal horse breathes evenly about \_\_\_\_\_ to \_\_\_\_\_ respirations per minute when he is not exercising. Breathing \_\_\_\_\_, rapid \_\_\_\_\_ breaths or \_\_\_\_\_ can signify an illness. Counting the rise and fall of the \_\_\_\_\_ would be a good way to check the respiration.

The normal pulse rate for a horse is \_\_\_\_\_ to \_\_\_\_\_ beats per minute. The pulse might go very high with \_\_\_\_\_ or \_\_\_\_\_. A high pulse can also indicate \_\_\_\_\_ and \_\_\_\_\_. The pulse can be taken several places such as the artery underneath the \_\_\_\_\_, inside the left elbow against the chest wall, or on the digital artery either behind the knee or at the back of the \_\_\_\_\_.

A horse normally defecates \_\_\_\_\_ to \_\_\_\_\_ per day and \_\_\_\_\_ 4-6 times per day. A change in \_\_\_\_\_ or consistency in excretions can be a sign of illness.

Often a sick horse just doesn't look right. Standing stiffly, not wanting to \_\_\_\_\_ or \_\_\_\_\_ can



If there is a rubbed place on your horse, \_\_\_\_\_ it and change the equipment right away. If the area is already \_\_\_\_\_, it should be treated as an \_\_\_\_\_ wound and allowed to heal completely.

### **BASIC FIRST AID:**

Having a first aid kit in the barn, and a portable version to take with you when traveling, is an excellent idea. Please refer to the CHA manual for a suggested list of items to have on hand. You might also want to check with your veterinarian for other suggestions, and perhaps some emergency medications, if you will be traveling a long distance or away from veterinary care such as out on a long trail ride.

Most nicks, cuts and scrapes do not require veterinary care. They should be thoroughly cleaned and gently \_\_\_\_\_. Use only a mild or \_\_\_\_\_ ointment on the wound. Lower leg wounds may need to be bandaged, but a bandage must be \_\_\_\_\_ and \_\_\_\_\_ applied or they will do more harm than good.

Puncture wounds are dangerous because they can easily become \_\_\_\_\_ and carry the danger of \_\_\_\_\_, also known as \_\_\_\_\_. A puncture wound should be allowed to \_\_\_\_\_ freely for cleaning and must heal from the \_\_\_\_\_. Horses should have yearly \_\_\_\_\_ shots, but a puncture wound may require a booster shot.

Serious wounds require the horse to be kept \_\_\_\_\_. Control serious bleeding by applying \_\_\_\_\_ directly on the wound with a \_\_\_\_\_ cloth or \_\_\_\_\_. Keep \_\_\_\_\_ on the wound and add more padding if it becomes soaked. A \_\_\_\_\_ bandage may be used over the pad to hold it in place and keep \_\_\_\_\_ on it until the veterinarian arrives, but do NOT apply a tourniquet. If a wound needs stitching, this should be done \_\_\_\_\_ for the best chance of healing. It is important not to apply any \_\_\_\_\_ or \_\_\_\_\_ to the area, use only \_\_\_\_\_ until the veterinarian arrives.

Lameness can have many causes. Most bruises, sprains and strains benefit from \_\_\_\_\_ or \_\_\_\_\_ with cold water for the first few days or until the leg is no longer \_\_\_\_\_ and \_\_\_\_\_. Cold packs can be alternated with \_\_\_\_\_ packs. To make a \_\_\_\_\_ pack, dip a \_\_\_\_\_ in a bucket of \_\_\_\_\_, wring it out and wrap it around the leg. Cover it with a \_\_\_\_\_ to hold in the heat. If the lameness is severe or last after a day or so of cold and hot packing you should \_\_\_\_\_.

**As part of your Level 4 assessment you will demonstrate basic first aid for horses. A copy of the judge's checklist is included to assist you.**

### **SELECTING A GOOD HORSE:**

A horse is suitable for his \_\_\_\_\_ and \_\_\_\_\_. He has the temperament, \_\_\_\_\_ and movement to be good at his job. He also has the \_\_\_\_\_ and durability to hold up under \_\_\_\_\_ work without breaking down.

Some horses, because of their \_\_\_\_\_ or \_\_\_\_\_, will specialize in one field or another. A horse that would make a good \_\_\_\_\_ horse would not have what it takes to be a high stepping \_\_\_\_\_ horse or vice versa.

The three main types of riding horses are \_\_\_\_\_, \_\_\_\_\_ and \_\_\_\_\_. \_\_\_\_\_ horses are built for \_\_\_\_\_ stops and \_\_\_\_\_. This type of horse can "\_\_\_\_\_." They have \_\_\_\_\_, well-developed \_\_\_\_\_ and \_\_\_\_\_ muscles and are \_\_\_\_\_, short coupled, and \_\_\_\_\_. Usually, stock horses are NOT very \_\_\_\_\_ or \_\_\_\_\_ legged. \_\_\_\_\_ type horses are \_\_\_\_\_, showy and \_\_\_\_\_. They should have excellent gaits and a refined, \_\_\_\_\_ appearance. They often have small \_\_\_\_\_, a \_\_\_\_\_ back and croup and a high-set \_\_\_\_\_.

\_\_\_\_\_ type horses have long \_\_\_\_\_ and \_\_\_\_\_ that allow them to move with long, \_\_\_\_\_ strides for \_\_\_\_\_, smoothness and \_\_\_\_\_. They are \_\_\_\_\_ and \_\_\_\_\_ than most stock horses. They also need a deep \_\_\_\_\_ for endurance, a good \_\_\_\_\_ and \_\_\_\_\_ for galloping and strong \_\_\_\_\_ for jumping.

\_\_\_\_\_ is the way a horse is \_\_\_\_\_. It makes a horse able to \_\_\_\_\_ well and stay \_\_\_\_\_ even with \_\_\_\_\_ work. No horse is perfect. \_\_\_\_\_ defects can make a horse \_\_\_\_\_ in a part or just make him less \_\_\_\_\_.

When looking at conformation, you should judge from the \_\_\_\_\_, at a distance. Then look at him from the \_\_\_\_\_, \_\_\_\_\_ and both \_\_\_\_\_ up close. This was you will \_\_\_\_\_ nothing.

An \_\_\_\_\_ is a serious condition that affects a horse's \_\_\_\_\_. A \_\_\_\_\_ is a defect that hurts his \_\_\_\_\_, but doesn't hurt his \_\_\_\_\_ ability, like a scar.

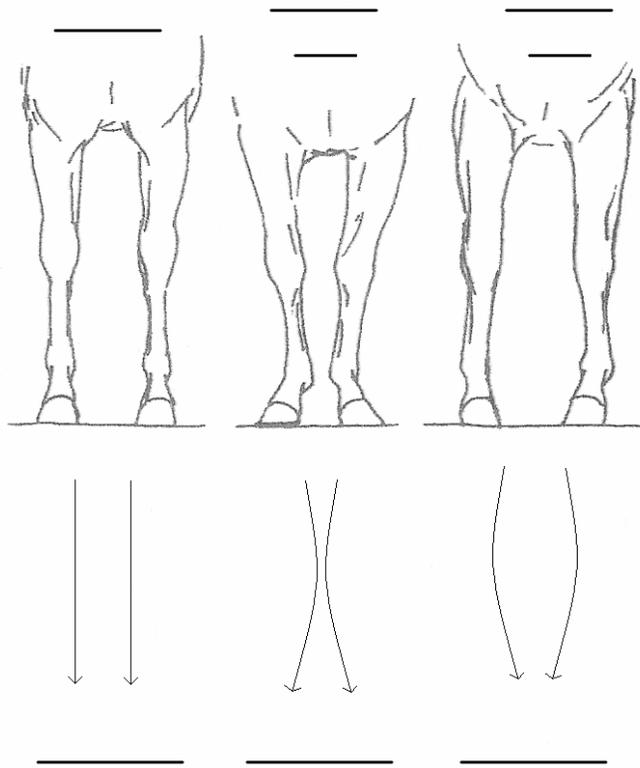
A horse is only as good as his \_\_\_\_\_. Poor \_\_\_\_\_ conformation means \_\_\_\_\_ that could break down with hard work.

It is important to notice whether a horse moves \_\_\_\_\_. If he has \_\_\_\_\_ legs, he may interfere or strike one leg with the \_\_\_\_\_ foot and hurt his \_\_\_\_\_. Straight legs with \_\_\_\_\_ proportions and leg bone \_\_\_\_\_ will mean smoother, more powerful \_\_\_\_\_.

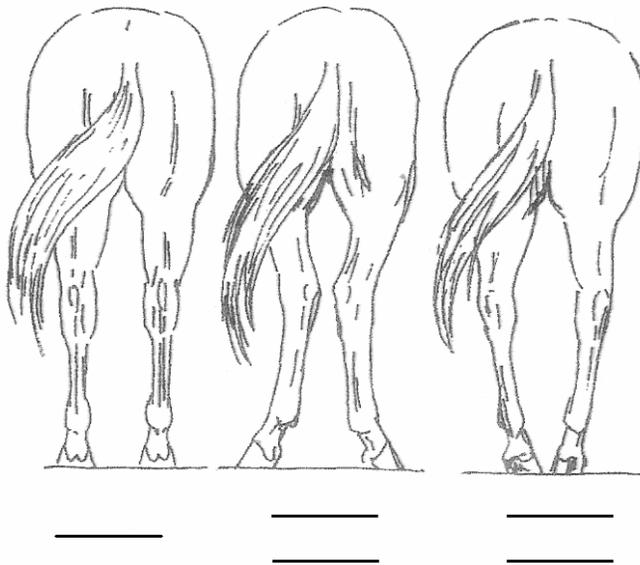
**STUDY THE PICTURES OF FORE LEG AND HIND LEG CONFORMATION ON THE NEXT PAGE.  
BE PREPARED TO IDENTIFY THE DIFFERENT TYPES.**

**STUDY THE PICTURES OF GOOD AND POOR CONFORMATION AND BE ABLE TO IDENTIFY AND  
ANSWER QUESTIONS ABOUT CONFORMATION.**

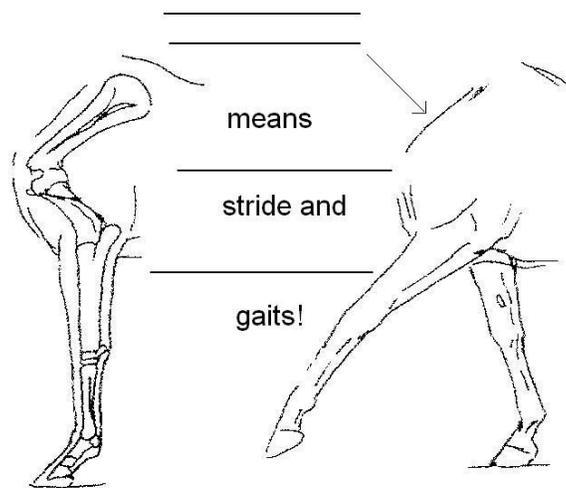
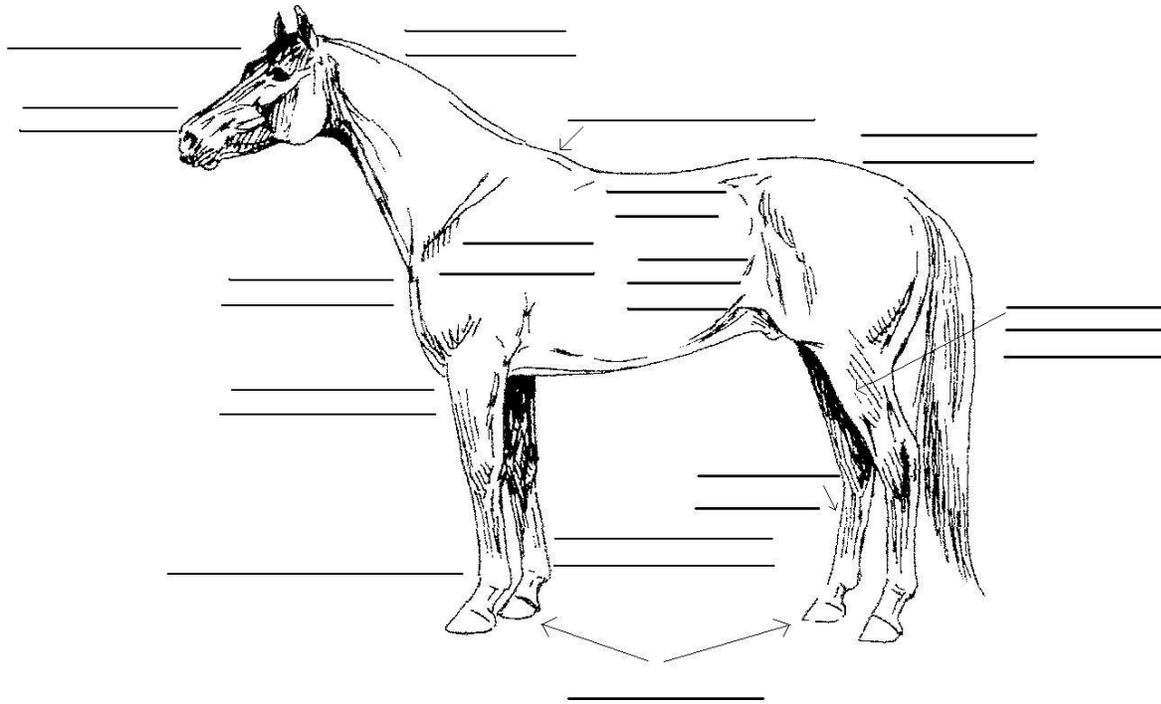
**FORE LEG CONFORMATION**



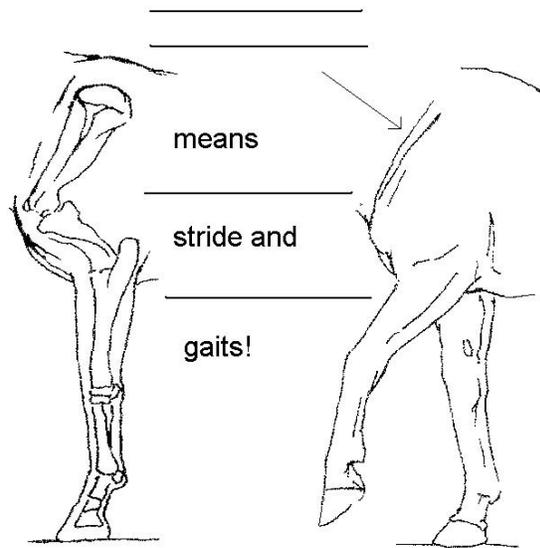
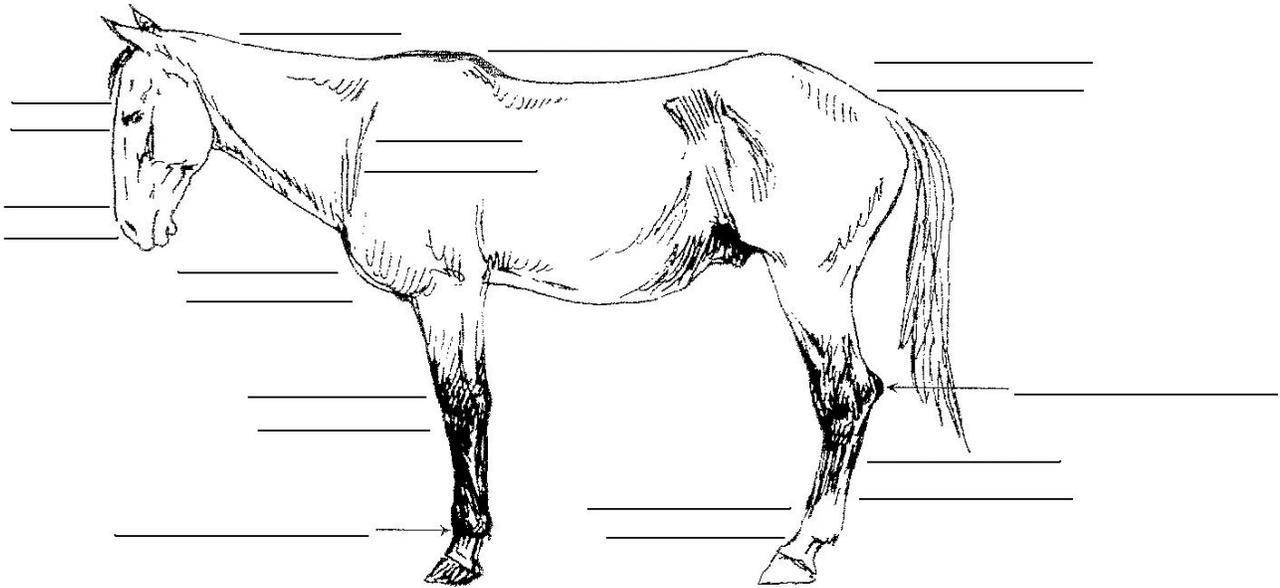
**HIND LEG CONFORMATION**



# GOOD CONFORMATION POINTS



# POOR CONFORMATION POINTS



## UNSOUNDNESS AND BLEMISHES:

As you learned earlier, an unsoundness is a serious condition that affects a horse's \_\_\_\_\_.  
A blemish hurts his appearance, but does not hurt his \_\_\_\_\_ ability.

Some of the more common unsound conditions are:

\_\_\_\_\_ : Caused by an injury to the flexor \_\_\_\_\_. It is usually found in the \_\_\_\_\_ legs. Some horses with this condition may return to \_\_\_\_\_ work.

\_\_\_\_\_ : Arthritis in the \_\_\_\_\_ of the hock.

\_\_\_\_\_ : Pinched, narrow \_\_\_\_\_ and a shrunken \_\_\_\_\_.  
It is an unsoundness, but can be treated by good \_\_\_\_\_ work.

\_\_\_\_\_ : The \_\_\_\_\_ has irregular growth \_\_\_\_\_. The feet are often \_\_\_\_\_ or the horse is \_\_\_\_\_.

\_\_\_\_\_ : A deep infection in the \_\_\_\_\_. It is often caused by pressure from the \_\_\_\_\_ and a \_\_\_\_\_ sore that has been neglected.

\_\_\_\_\_ : An infection beneath the \_\_\_\_\_ line. It can cause severe \_\_\_\_\_ until it has healed.

\_\_\_\_\_ : Callouses or small \_\_\_\_\_ on the inside of the \_\_\_\_\_. They may not cause immediate \_\_\_\_\_, but are a sign of faulty movement and potential unsoundness.

\_\_\_\_\_ : A crippling change in the \_\_\_\_\_. It is incurable.

\_\_\_\_\_ : A \_\_\_\_\_ in the side of the \_\_\_\_\_. If it is deep, it can cause \_\_\_\_\_ and unsoundness.

\_\_\_\_\_ : A form of arthritis in the \_\_\_\_\_ bones. It causes progressive \_\_\_\_\_.

\_\_\_\_\_ : A condition in which the \_\_\_\_\_ joint locks.

Some common blemishes are:

\_\_\_\_\_ : Swelling on the front of the \_\_\_\_\_ caused by an \_\_\_\_\_. It may cause soreness at first and later become a \_\_\_\_\_.

\_\_\_\_\_ : Permanent swelling on the point of the \_\_\_\_\_.

\_\_\_\_\_ : Permanent swelling on the point of the \_\_\_\_\_.

\_\_\_\_\_ : Firm, fluid \_\_\_\_\_ on or near the \_\_\_\_\_.

They are a sign of stress and hard \_\_\_\_\_, but they do not cause \_\_\_\_\_.

Conditions that may be both an unsoundness or a blemish are:

\_\_\_\_\_ : A filling of the depression on the inside of the \_\_\_\_\_.

\_\_\_\_\_ : A thickening of the ligament that runs along the back of the \_\_\_\_\_.

It is caused by \_\_\_\_\_ and may be a blemish or an unsoundness depending on the severity.

\_\_\_\_\_ : The collateral cartilage of the \_\_\_\_\_ turns to bone. At first it causes \_\_\_\_\_ and later becomes a blemish.



**LEVEL 4 DEMONSTRATION**  
**HEALTH, SICKNESS AND BASIC FIRST AID**

**RESPIRATION:**

- \_\_\_ 1. Horse tied safely with proper knot. (Approx. 18" length)
- \_\_\_ 2. Explained respiration rate. (Normal 8-16 breaths per minute, stressed 40-100)
- \_\_\_ 3. Explained factors that affect respiration rate. (exercise, weather, fever, age, etc.)
- \_\_\_ 4. Explained how to take respiration rate with rise and fall of nostrils.
- \_\_\_ 5. Explained how to take respiration rate with rise and fall of left flank.
- \_\_\_ 6. Was able to accurately determine respiration.

**PULSE:**

- \_\_\_ 7. Explained pulse rate (Normal 30-40 beats per minute, stressed 60-80).
- \_\_\_ 8. Explained factors that affect pulse rate (Exercise, excitement, pain, stress).
- \_\_\_ 9. Explained how to take pulse under jaw on inner surface of groove (Maxillary artery).
- \_\_\_ 10. Explained how to take pulse inside left elbow against the chest wall (heart).
- \_\_\_ 11. Explained how to take pulse behind knee (Digital artery).
- \_\_\_ 12. Was able to accurately determine pulse.

**TEMPERATURE:**

- \_\_\_ 13. Explained normal temperature (generally 99° to 101°).
- \_\_\_ 14. Explained what factors can affect temperature (exercise, high humidity, hot weather, infection).
- \_\_\_ 15. Explained when to take temperature (loss of appetite, not drinking, dull eyes, lethargic, diarrhea, runny nose, cough).
- \_\_\_ 16. Demonstrated how to prepare thermometer to take temperature. (Shook down if mercury type, lubricated, attached cord and/or clip)
- \_\_\_ 17. Safely and gently inserted thermometer and explained time required for accurate reading.
- \_\_\_ 18. Removed the thermometer and wiped it clean.
- \_\_\_ 19. Demonstrated how to read thermometer and gave correct reading.
- \_\_\_ 20. Disinfected thermometer before replacing in case.
- \_\_\_ Total number of items checked (20 possible)

## LEVEL 4 DEMONSTRATION

### HEALTH, SICKNESS AND BASIC FIRST AID

#### RECOGNIZING COLIC:

- \_\_\_\_\_ 1. Explained the term colic and recognized it is the number one killer of horses.
- \_\_\_\_\_ 2. Listed the signs of colic (uneasiness, sweating, lying down and getting up repeatedly, pawing, looking/kicking at belly, stretching, trying to urinate).
- \_\_\_\_\_ 3. Explained procedure while waiting for vet to arrive: remove feed, keep him from getting chilled, walk him slowly or let him stand, do not allow him to roll or hurt himself.
- \_\_\_\_\_ 4. Identified possible causes of colic: overeating grain, gulping cold water when hot, eating spoiled or unsuitable feed, change of diet, ingesting too much sand, possible parasite damage.

#### MINOR WOUND CARE:

- \_\_\_\_\_ 5. Explained nicks, cuts and scrapes generally do not require a veterinarian.
- \_\_\_\_\_ 6. Demonstrated cleaning and drying of minor wound.
- \_\_\_\_\_ 7. Knowledgeable that only a mild ointment (such as A&D) or an antibiotic ointment should be used, not strong remedies.
- \_\_\_\_\_ 8. Explained reason for clipping hair around wound if possible (to prevent irritating wound).
- \_\_\_\_\_ 9. Explained that some wounds heal better if left unbandaged and not over medicated.

#### PUNCTURE WOUNDS:

- \_\_\_\_\_ 10. Knowledgeable that they are dangerous due to tetanus (lockjaw).
- \_\_\_\_\_ 11. Explained that wound should be allowed to bleed to promote cleansing and allowed to heal from inside out.
- \_\_\_\_\_ 12. Knew horse should have yearly tetanus shot and that wound may require a booster.

#### SERIOUS WOUNDS:

- \_\_\_\_\_ 13. Explained horse must be kept under control.
- \_\_\_\_\_ 14. Described how to control serious bleeding: direct pressure using a clean cloth or pad, adding more padding if it becomes soaked.
- \_\_\_\_\_ 15. Knowledge that a tight bandage can be used to keep pressure on the wound, but that a tourniquet should not be used.
- \_\_\_\_\_ 16. Explained that serious wounds requiring stitching must be stitched as soon as possible and that no soap or ointment should be applied, only water.

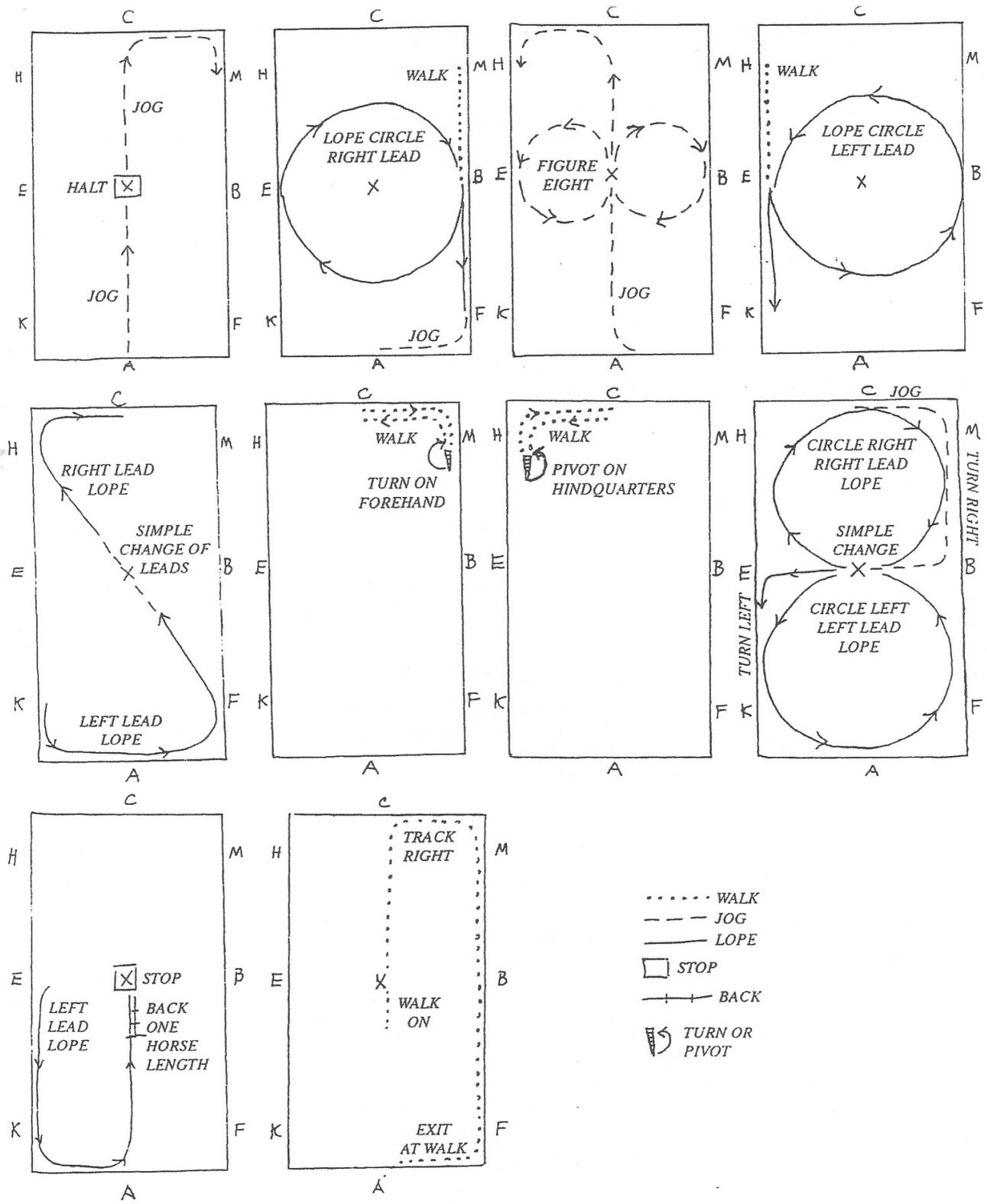
#### LAMENESS:

- \_\_\_\_\_ 17. Explained that most bruises, sprains and strains can be treated with soaking or hosing with cold water for 20 minutes several times a day.
- \_\_\_\_\_ 18. Explained how to apply hot pack: dip towel in warm water, wring out and wrap area.
- \_\_\_\_\_ 19. Covered with dry towel to hold in heat.
- \_\_\_\_\_ 20. Knowledge that cold packs can be alternated with hot packs and applied in same manner.
- \_\_\_\_\_ Total number of items checked (20 possible)

## LEVEL 4 WESTERN PATTERN INSTRUCTIONS

Letter	Directions	You are scored on
1. A X C	Enter at jog Halt, pause 5 seconds Continue at jog Track to the right	Position, seat, aids Straightness, halt without roughness, square Transitions Accurate turn
2. M B F	Walk Right lead lope Circle right, width of arena Continue along rail Jog	Aids and transitions Position, seat Correct lead Not breaking gait Accurate circle
3. A X C	Turn down center line Figure 8 (left ½ width of arena followed by circle right same size) Track to left	Accurate turn, figure 8 Position and seat Aids and reining Steadiness and not breaking gait
4. H E	Walk Left lead lope and circle left Width of arena Continue along rail	Aids and transition Correct lead, not breaking gait Seat and position Accurate circle
5. F-X-H	Change of directions on the diagonal Simple change of leads at center	Aids and control Straightness
6. C M	Walk Stop, turn on forehand 180° Walk along rail	Seat, aids for walk, stop and turn on forehand Smoothness
7. H	Stop, pivot 180° on hindquarters (Turnback on rail allowed) Walk along rail	Seat and aids for pivot and stop Smoothness
8. C B X	Jog Turn right into center of arena Right lead lope and circle right width of arena	Seat and aids Transitions, correct lead Not breaking gait Accurate circle
9. X X E	Simple change of leads to left lead, circle left width of arena Lope straight ahead to rail Turn left along rail (at lope)	Seat and aids Smoothness of change of leads Correct lead Accurate circle and turn
10. A X C	Turn down center line Halt, pause 5 seconds Back one horse length in straight line Continue at walk Track to right along rail Walk along rail to exit at A	Seat, balance and position Halt with control and without roughness Straightness of halt and back  Ability to settle horse and walk quietly on loose reins

# LEVEL 4 – WESTERN RIDING PATTERN



## LEVEL 4 ENGLISH PATTERN INSTRUCTIONS

Letter	Directions	You are scored on
1. A X C	Enter at working trot, sitting Halt, pause 5 seconds Continue at working trot, sitting Track to the right	Position, seat, aids Straightness, halt without roughness, square Transitions Bending in turn
2. M B F	Medium trot, posting Circle width of arena Working trot, sitting	Position and balance Correct diagonal Accurate circle, bending
3. A X C	Turn down center line Figure 8 (left ½ width of arena followed by circle right same size) Track to left	Accurate turn, figure 8 Position and seat in sitting trot Bending and change of bend
4. H E K	Medium trot, posting Circle left width of arena Working trot, sitting	Posting and correct diagonal Accurate circle, bending
5. K-F F-X-H H	Working trot, sitting Change of direction on diagonal Lengthen stride to strong trot, posting H to C working trot, sitting	Position and seat Lengthening of stride and rhythm Transitions
6. C M	Walk Turn on forehand 180°, walk on	Seat, aids for walk Turn on forehand
7. H	Turn on forehand 180° Walk on to C	Seat, aids for walk Turn on forehand
8. C M B	Working trot, sitting Canter, right lead Circle right width of arena to E Continue along rail at canter	Seat and aids for canter Transition, correct lead Not breaking gait Accurate circle
9. K-X-M M	Change directions on the diagonal between K and M, Simple or flying change of leads Left lead canter along rail	Seat and aids for change of leads Accuracy of change of direction Smoothness of change Correct leads and lead change
10. E	Circle left, width of arena Canter, left lead Continue along rail to K	Seat and aids in canter Correct lead Accurate circle
11. K A X	Working trot, sitting Turn down center line Halt, pause 5 seconds Continue at walk to end of arena Track right along rail, exit at A	Transitions and aids Straightness and accuracy Position and seat Smoothness and quietness of seat and aids

