



4-H Youth
Development

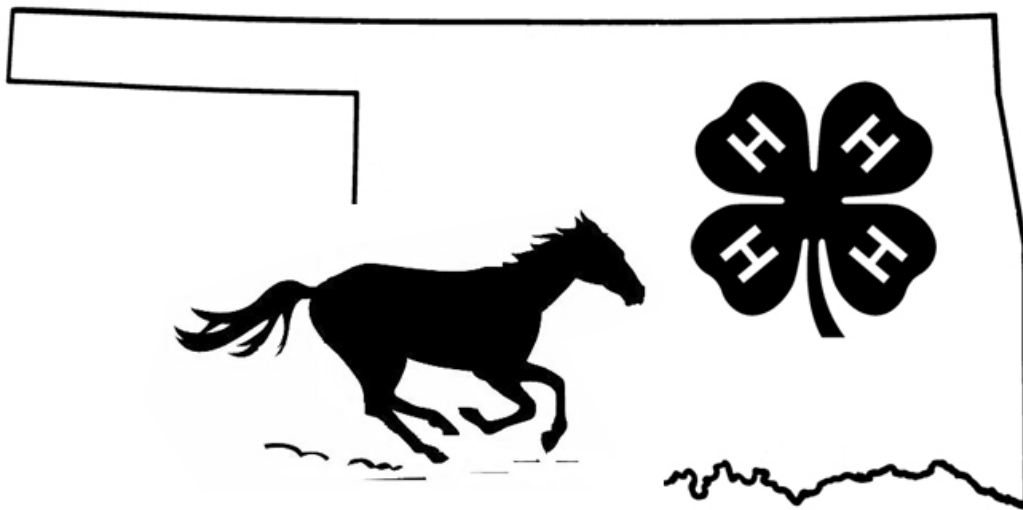


Oklahoma 4-H Horse Project

Member Activity Manual

Facilitator Guide

4-H-ANSC-607



Member Activity manuals were prepared originally by Dr. David Freeman, Extension Equine Specialist, and Dr. Sheila Forbes, Youth Development Specialist, Oklahoma State University, Stillwater, OK., and have since received revisions in 2004 and 2010 by Dr. Freeman, Meriruth Cohenour, 2004 Undergraduate Student Program Aide, and State Development 4-H Youth Specialists.

Oklahoma 4-H Horse Project Member Activity Manual
Facilitators Guide

The Horse Project Member Development manuals contain a progressive series of elective activities intended to provide a framework for youth development in the horse project. The manuals require supervision and teaching by a 4-H Horse Project Leader. Completion of the manuals requires written accounts of activities, oral and written responses to questions and demonstrations of practical expertise.

Although not required for membership, all new 4-H members in the horse project should be encouraged at a minimum to complete activities in manual one. Involvement will provide the member and leader direction for 4-H programming with the horse project. Members should use their own project horse for completion of necessary tests. Leaders should replace the requirements for riding if a member does not have a project horse or does not have a suitable animal to complete a specific task

Objectives of the Activity

The primary purpose of the activity is to develop life skills of youth involved with the 4-H Horse Project. Youth are required to build and demonstrate their abilities to communicate, make decisions, plan and organize group projects, relate to and lead others, and in analyzing and interpreting needs for solving problems.

The manuals are also intended to provide a framework of activities that increase the experiential knowledge of 4-H members in the horse industry. For many youth, it will require participation in areas that they have little past knowledge or experience. As such, it is intended to expand their interests to different phases of the horse industry. Additionally, members will be required to progressively increase their knowledge and abilities in their interest areas.

Participation Requirements

The suggested minimum age requirements for completing the manuals are as follows: One, 9 years; Two, 11 years; Three, 13 years; and Four, 15 years of age. The manuals are designed to be completed as a progressive series. Ideally, the higher manuals should not be started until completion of lower phases. However, those members starting the program that meet the age suggestions for two or above may complete lower manuals concurrently.

Leaders and extension educators can modify the manuals in efforts to increase the program effectiveness for each member. The manuals are intended to establish a **minimum** level of skills and demonstration of knowledge. Additional activities are encouraged. . The effectiveness of the manuals will improve if a leader can alter the activities to build on the strengths and improve a youth's ability in areas of inexperience. Youth should advance as interest and abilities dictate with no definite time schedule.

Each manual is divided into three parts. Part one requires members to report their participation at horse events and 4-H activities. Part two is intended to increase members' knowledge of the horse industry and their expertise in horsemanship, management and horse evaluation. The final part allows for evaluation of the project.

Completion of the Manuals

You will find numerous types of activities are required for completion of the manuals. Many of the activities can be conducted in a group to make efficient use of resources and time. To get started, have the members and parents read through the manual they are to work in and then as a group discuss what activities will be necessary. Many of the activities can be completed by individual work, and will require little organized activities. Others incorporate the need for field trips, study from specific resource materials and instruction from resource support people. These activities can be incorporated in monthly meetings and provide a foundation for year-round project club activities. The group activities are excellent opportunities to increase parental involvement by assigning parents tasks that are required for completion of the manuals. This project requires detailed inspection and direction at the local level. Leaders will need the involvement and participation of parents, knowledgeable horse persons, and other resource people for successful programming.

You will find many similar types of activities in the various manuals; however, it is the intent that the depth of knowledge and level of expertise is greater in the more advanced manuals. Ideally, older youth working in the more advanced manuals should participate in the organization of group activities required for their manual completion. By doing so, they will develop skills to set goals for long-term projects. Older youth should also be encouraged to demonstrate their abilities by teaching younger members.

General Suggestions

Several suggestions may be of value to you before getting started. First, it is important to familiarize yourself with the materials in the manuals. This will allow you to efficiently plan activities, and recruit the needed resource people early in the activity year. Secondly, recruit the assistance of as many parents, older 4-H members, resource people and extension educators as possible. Also, don't overlook anyone. Those with little horse experience may be able to provide the most needed assistance by organizing activities, contacting resource people and developing into instructors themselves.

Third, develop a year-round plan with your resource people that will provide activities of interest for the youth. Have the youth participate in the development of this plan by providing suggestions of activities that are of most interest to them and ideas on how to complete those activities.

Fourth, develop numerous, small incentive programs for positive reinforcement of participation by the members. This may be something as simple as recognition for attending activities to less direct, less noticeable recognition such as allowing an older member the freedom to design and conduct an activity for other members.

Finally, and perhaps most important, maintain as much individualism in the program as possible. The manuals are designed to allow youth to participate at their own pace. Interest areas and abilities will differ between youth. While the overall objectives of the program are important to maintain, the manuals are designed to be flexible. You the leader are encouraged to alter the manuals as member needs suggest. This does not mean lack of participation in a particular area. Try to supplement the activities in the manual rather than replace the intended activities. Understand that the requirements in the manuals are intended to be **minimal** needs of the 4-H member.

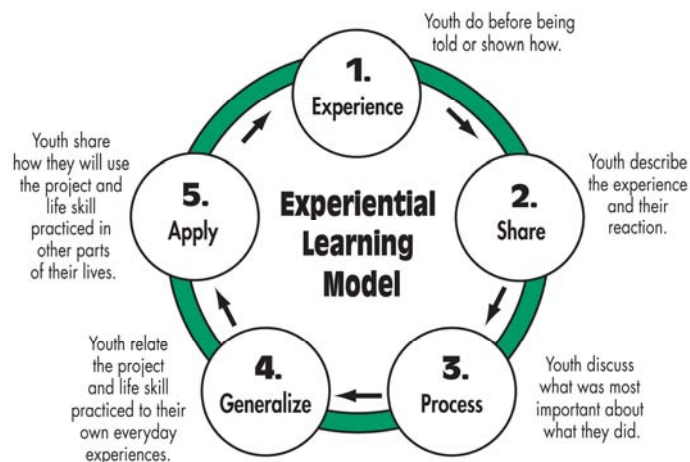
Also, you will find the questions and activities are somewhat open-ended in the amount and depth of information required for completion. The value of the program is not in the ability to complete the manual more quickly than another youth; it is in the act of completing the manual itself. Those leaders who design programs for the members to continually challenge themselves will find the most value in the program. **Developing a youth's skills to challenge him or her to advance**

their skills instead of ranking their level of abilities solely on the basis of comparison with peers is one of the most valuable benefits of this particular program.

Applying the Experiential Learning Process

The 4-H program uses the experiential learning process as the primary format for educating youth audiences. Experiential learning takes place when a person is involved in an activity, looks back at it critically, determines what was useful or important to remember, and uses this information to perform another activity.

Because of their love of horses, 4-H'ers in the horse project are especially motivated to "learn by doing". The experiential process requires the leader to have a clear objective for an activity that relates to life skill development. Activities should be carefully planned to most effectively reach those learning objectives.



Pfeiffer, J.W., & Jones, J.E., "Reference Guide to Handbooks and Annuals"
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Here are the key steps in this process:

- Having the participant(s) **experience** the activity. Begin with a concrete experience. This can be an individual activity or a group experience, but it involves "doing something".
- Having the participant(s) **share** the experience by describing what happened. Get the participant(s) to talk about the experience. Share reactions and observations. Let the group talk freely. Acknowledge ideas. Allow time to share responses. Encourage group members to answer questions posed by others. Avoid having the leader answer all the questions.
- Having the participant(s) **process** the experience to identify common themes. Discuss how themes, problems, and issues are brought out by the activity. Talk about specific problems and issues that the group discovers from the experience or recalls from personal experiences.
- Having the participant(s) **generalize** from the experience to form principles or guidelines that can be used in real-life situations (i.e., life skills). Find general trends in the experience. Draw out and identify the principles that are important and that apply to "real life," not just the activity. This focuses on the key messages. Identify situations where the principles apply.

- Asking the participant(s) to **apply** what was learned to another situation. Concentrate on how the new learning can be applied to everyday situations. Discuss how issues raised by this activity can be useful in the future. Describe how more effective behaviors can grow out of what is learned.

Providing an experience alone does not create “experiential learning”. The activity comes first. The learning comes from the thoughts and ideas created as a result of the experience. This is a “learning by doing” or experiential process. Addressing each step in the process assures a plan that will reach a specific goal. The leader’s role is to go beyond simply showing or telling how to accomplish a task. The leader’s role is to develop activities that allow youth to develop solutions to problems that will in turn increase that youth’s life skill development. Simply stated, leaders are teachers, not doers, and they let the youth learn.

LEARNING CHARACTERISTICS OF DIFFERENT AGE GROUPS OF YOUTH

Leaders can work best with and plan learning experiences for youth if they are familiar with general physical, mental, social and emotional characteristics for age groups. Each youth is unique, individual and progresses at his/her own rate. However, there are some generalities about certain age groups that can help you program effectively.

The 9-11 Year Olds

- Activities need to include physical movement and hands-on involvement. Youth will give more attention if they are both seeing and doing things.
- Are still fairly concrete thinkers but are beginning to understand abstract thoughts and ideas. But usually still think in terms of right or wrong, good or bad - is little middle ground.
- Like to be in organized groups of others similar to themselves. The “joiner” age. Work best in small groups of same sex.
- Leader very important to this age. Seek adult approval and encouragement. Individual evaluation preferable over group competition.
- Have a strong need to feel accepted and worthwhile. Build positive self-concepts by comparing present to past performances and how much they have improved.
- More interested in immediate self-reward than looking at the long-term benefits of a project or activity.

The 12-14 Year Olds

- Rapid changes in physical appearances. May make some youth uncomfortable, especially if they are slow or fast developers.
- Move from concrete to more abstract thinking. Like to find their own solutions. Provide supervision without interference. Small groups work best.
- Group experiences provide opportunities for social interaction and acceptance. Young teens seek peer recognition. Now testing values and morals.
- Avoid comparing with each other and embarrassing them. Provide opportunities to develop responsibility and be part of something important. Self-discovery activities important.
- Seek out adults who are accepting and willing to listen as well as talk.

The 15-18 Year Olds

- Usually know own talents and abilities.
- Have adjusted to post-puberty body changes and emotions leveled off.
- Can initiate and carry out own tasks without supervision.

- Acceptance by opposite sex of major importance.
- Set their own goals based on personal need and priorities. Leaders should help arrange for experiences, but seek and allow input from teens.
- Learning to cooperate on an adult level.
- Do not like busywork - independence and identity important emotional goals.
- Pride themselves on increased ability to be responsible in eyes of themselves, peers and adults. Can assume leader role for younger members.
- Leader serves as an advisor/coach rather than director.
- Beginning to make major life decisions.

This information on child development has been taken from the Oklahoma State University Cooperative Extension Service Publication No. 41, Ages and Stages of Child and Youth Development: A Guide for 4-H Leaders. OSU extends credit for the contents to Jeanne Karns, graduate assistant and Judith Myers-Walls, Extension Specialist, Human Development, Purdue University and to Lurna Champ, Child Development Specialist, for "The Basic Needs of a Child." Edited by Sheila Forbes, Extension Specialist, 4-H Youth Development, and Elaine Wilson, Extension Parenting Specialist.

MANUAL ONE

An explanation of the objective for individual activities and questions in Manual One is provided below. Use these as suggestions for ideas, not as a strict guide. Review this guide with the Manual One in hand. Make notes on your thoughts as you go through it, so you can decide which suggestions you want to incorporate in your instruction.

Part I. Are You an Active 4-H'er?

1. List the types of activities that you do with your project horse. For example, feeding, riding, cleaning stalls, going to events.
2. Keeping Track of the Number of Hours you Spent Riding, Exercising or Ground Training or Caring for your Project Horse(s) (*Record your daily totals on a calendar and write monthly totals below*).

This is meant to start record keeping. Over time, members will be able to evaluate time spent and develop time management skills. To open discussion, ask the member if they worked their horse daily, or less frequently. Ask them what type of riding activity they enjoyed most. Did they exercise the horse during the winter or do their records suggest more of a seasonal participation? Did they find they were too busy to work their horse certain times of the year, or did their interests change from month to month?

3. List the date of at least three shows, trail rides or other group events you participated in with your horse. Also, list what you liked most about the activity, or something you feel that you or your horse gained by participating.

This is similar to question 2, with emphasis on recording some type of highlight for participating. The highlight may or may not be technical information about horses. It may be related to the youth's social development with other youth, etc. Good discussion with the youth will be the key. Parents can provide insight by attending the activity with the youth.

4. Record your attendance at five clinics, tours or demonstrations on horse management and use. List something you learned that you plan to use with your project.

Again, this is similar to the questions above. Remind the youth prior to the event that they will have to list something they learned from the activity. This will assist in the development of interpretive and application skills.

5. Report when you did at least two of the following activities.
6. List the dates and locations of at least five 4-H meetings or other group activities you attended. These activities do not have to be horse club or horse topic meetings. These activities do not have to be 4-H activities. List something you learned from attending.

Similar to the above, this may be a good example of an activity for youth to participate in a group. Encourage youth to discuss their interests about the magazines, etc. with one another.

7. Write in your own words what the 4-H motto, *'To Make the Best Better'* means.

Group or individual activity, discussion with youth is valuable.

8. List the date you attended a presentation, demonstration, clinic or workshop given by another 4-H member.

Youth may want to give one of these in addition to attending. These don't have to be formal presentations. Review of experiences at a previous 4-H activity may be a good place to start youth verbally presenting their ideas to others.

9. People are providing community service when they volunteer and freely give their time and abilities to do something to improve the lives of others. List the date you helped the 4-H club or group with a community service project. Describe what you and the group did.

Let youth develop their own ideas of how they can individually or collectively provide some type of community service. Community service projects should be a routine activity of 4-H clubs. The youth may want to follow older, more experienced youth, and assist in the actual activity rather than plan and organize a community service project.

Part II. How is your ability with horses?

A. Riding Skills

1. Describe how to cue a horse to stop (what you do with your voice, hands and body).
2. Describe how to cue a horse to move from a walk to a trot.

Encourage youth to analyze what they do and when they do it. Many haven't thought through how the voice, hand and body are used individually and collectively. Proper techniques shouldn't be difficult to find with assistance of resource people, magazines, etc.

3. Describe how to rein a horse to the left when riding with one hand on each rein.

Same as questions above. It is important that the youth know how to use direct reins as well as neck reins when riding western. These questions can be covered when youth are demonstrating their riding skill abilities.

4. Describe how a rider should dress to help ride safely, including use of different kinds of head gear, boots and clothes. Identify a supplier (name and ordering address) of safety helmets approved for riding horses.

Discussion of safe practices is especially important at this age and level of experience. Emphasize everything from helmets to boots.

5. Demonstrate Your Horsemanship Ability.

Many of the youths' abilities will require additional tests to challenge them. Observe the youth's ability and design tests that encourage development in weak areas. Stress basic communication principles with the horse, how to cue a horse for the test, and what safety criteria are especially important.

B. Management Skills

1. Watch one horse in a group of horses in a pasture or turn-out area for at least 10 minutes three different times in one week. Record some of the different behaviors (ways the horse acts) you may have seen. Watch quietly without distracting the horses so you can observe how one horse naturally acts around other horses.

Acknowledging facial expressions, body language and normal behavior of horses are keys in horse training. Youth should be able to pick out some of the more obvious ways horses interact with one another.

2. From watching the horse, could you tell if the horse was the boss of the other horses, or did it seem to 'take orders' from other horses?

Is the horse the dominant horse, the lowest on the herd pecking order or somewhere in between? Watching them when the group is fed is a good time to observe this pecking order.

3. Discuss with your leader ways you can tell how a horse is 'feeling' by watching its behavior with other horses. Why is it important to understand ways a horse displays its behaviors to other horses and to humans?

Youth should be able to pick out how horses play, give each other attention and fight. Safety and the ability to reward horses for appropriate actions are a couple of ideas. Training is modifying the behavior of the animal, so in order to train, youth must understand behavior.

4. Watch a veterinarian give a horse an injection with a syringe. Explain what the injection contained, why it was given, and where it was given.

This is a good activity for veterinarian to be a part of a demonstration at a meeting. Your veterinarian can suggest other techniques to demonstrate.

5. Write down the dates your horse's hooves were trimmed or shod for 1 year. Note how much of the hoof wall the farrier removed from the horse (you may want to measure the hoof trimming that was removed from the front portion of the wall each time it was trimmed)

Should be a fun and interesting way to learn more about the physiology of the horse. Youth may want to compare their measurements with others member's horses.

6. Explain how to safely approach a horse when catching the horse to halter.

There is a manual available for viewing and downloading at www.ansi.okstate.edu/e-equine which provides a description of one method: E-960 Techniques for Safely Handling Horses.

7. How old should a foal be before it is weaned? Discuss with your leader why this age is appropriate.

There are OSU fact sheets on this subject available for viewing and downloading at www.ansi.okstate.edu/e-equine; also asking veterinarians and horse farm managers will be helpful.

8. List three types of materials that can be used for fencing a horse pasture. Discuss with your leader why some materials are safer than others.

Good activity to incorporate with a farm visit.

9. Go to a store that sells feed and list the information on two different feeds sold for horses.

Information can be found on feed tag.

10. List three different kinds of hay that can be fed to horses.

Have youth bring in hay samples from their barn so youth can compare their hay with others. OSU Facts Sheets will be helpful.

11. Find some moldy feed or hay, and discuss with your leader why you don't want to feed it to a horse. Explain below.

Veterinarian or nutritionist may include this in a discussion on colic and digestive upset.

12. Along with other members, bring a bridle to a group meeting. Draw the headstall, bit and reins below. Identify the parts of the bridle by labeling the drawing. Identify the brow band, curb chain, throat latch, cheekpiece, and cavesson if on the bridle. Discuss how bridles that were brought to the meeting differ in these parts.

May be fun to have members disassemble and reassemble bridles to see if they place parts correctly.

13. Visit a store that sells tack for horses and list five different items intended for use with horses. Record the cost and use of the items. Discuss with your leader why it is important to be able to correctly identify different items by their correct names.

Ability to communicate professionally and objectively with other horse owners requires a working knowledge of correct terms. Ask the members how much different items varied in cost, how many different types of tack were available.

14. Individual Tests. Member must complete the tests with supervision of a leader or extension educator. Other tests should be added to assist the individual member's development.

Can complete at the member's barn or in group situations as part of a testing day. Add tests that show a youth can safely work around horses on the ground.

Identification and Evaluation Skills

1. Visit a horse farm and identify four different colors of horses.

Some of the colors, bay, black, grey, should be easy for youth to identify. Several of the breed association websites have visuals on colors that are recognized with their breed.

2. Trace or draw a picture of a horse's head and show the markings for a snip, blaze and star.

Snip: white on nose. Blaze: white down face from eyes to muzzle. Star: White spot between eyes. Breed registration materials may be helpful in correctly identifying other markings.

Snip



Blaze



Star



3. Trace or draw a picture of a horse's leg and show the markings for a sock and a stocking.

Sock, white up to mid-way of the cannon bone (half stocking). Stocking has white further up the leg to the knee. As an activity, may want to identify different leg markings on member's horses.

Sock



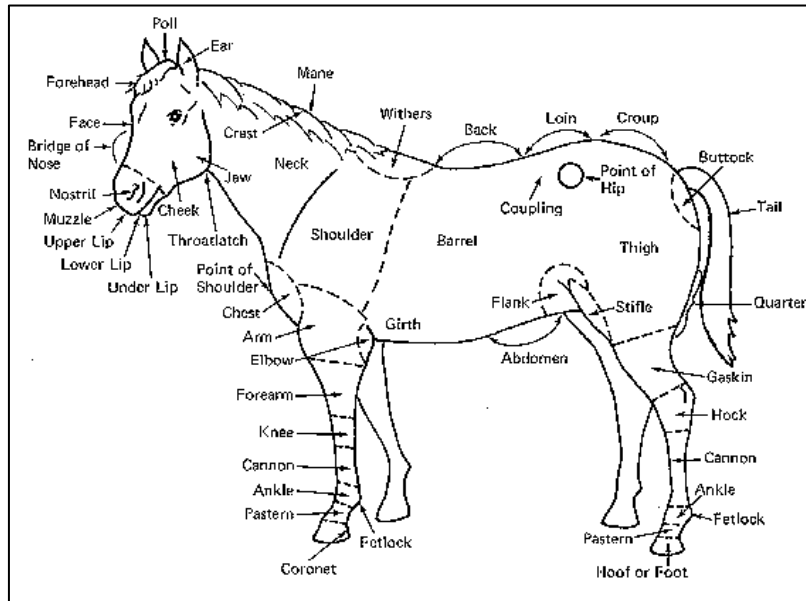
Stocking



4. With assistance of your leader, measure the height of a horse from the ground to the withers (in inches). Record the measurement below and convert it to hands (4 inches in hand). Example: 41 inches would convert to 10 hands, one inch.

Will need a measuring stick with a level to accurately measure wither height. This is another activity for youth to compare differences in their projects.

5. Draw, trace or place a picture of a horse and label at least 10 parts of the horse's body. Discuss with the leader why it is important to know the correct names of the parts of the body.



6. Define the term 'breed'. Identify four breeds of horses that you see in your local area, and list those breeds below.

Breed: A group of horses having a common origin and certain characteristics that are inherited from ancestors.

7. With the help of a leader, use the Internet to search for a history of one of the breeds you listed above. List several items you found interesting about the breed.

Breed association websites are a good source for this information, as well as the Horse Breeds website maintained by Oklahoma State University.

8. Watch a judged performance class at a horse show and discuss with your leader how the class is judged. List three important points that a judge looks for in the class.

Rulebooks from horse show organizations will have this information.

D. Careers and Knowledge of the Horse Industry

1. With your leader, discuss the types of businesses that provide services or goods to horse owners in your area. List names of some of those businesses below and what the businesses sell or provide for use by horse owners.

Some of the businesses may not be obvious to this age of youth. The list can include any business that serves the horse industry, i.e. accountants, businesses that serve horse farms, etc. At this point, the veterinarians, horse farms, feed stores, etc. should be easily identified.

2. Visit with someone who earns their living by providing services or goods to horse owners in your area. Explain what you found out about their jobs. What days of the week do they work? What do they do to earn money in the job? Do

you think you would like to have a job like theirs when you grow up? What types of classes at school would help prepare you for the same type of job?

Start a discussion on careers in the horse industry. May be a good activity for youth to verbally report to one another what they found out from their visits.

Part III. Reviewing your level of activity

This may provide an avenue to visit the youth's barn. Let the youth self-evaluate. This isn't intended to be a critical review by you; however, this may be a great way for parents and youth to ask questions and obtain advice. Glaring discrepancies between your evaluation and their evaluation should be constructively discussed.

MANUAL TWO

Members should complete Manual One before completing Manual Two. An explanation of the objective for individual activities and questions in Manual Two is provided below. Use these as suggestions for ideas, not as a strict guide. Review this guide with the Manual Two in hand. Make notes on your thoughts as you go through it, so you can decide which suggestions you want to incorporate in your instruction.

Part I. Are You an Active 4-H'er?

1. Record the amount of time spent riding your horse for 14 consecutive days (select the time that you are most active with your horse). Also list what the intended objective of the ride for the day was, and how well you reached the objective that day. Discuss with your leader how you altered your daily routine because of meeting or not meeting your daily objectives (use whatever system you like, may find a scale of 1 to 10 useful, or use words such as failure, success.)

This is meant to teach youth to set an objective before the daily ride of their horse. Discuss how new objectives should be based on past accomplishments, so the rider and horse can progress. It also requires the youth to evaluate how well they accomplished their objective. Youth should begin to manage their time and self-evaluate their riding activity.

2. List the date of at least five horse shows, trailrides or other group events you participated in with your horse. Also, list something you felt was a big accomplishment you gained from the activity.

This is similar to question 1, with emphasis on recording some type of accomplishment. The accomplishment may or may not be technical information about horses. It may be more related to the youth's social development with other youth, etc. Good discussion with the youth will be the key. Parents can provide insight by attending the activity with the youth.

3. List the date of at least five clinics, tours or demonstrations on horse management, use and care that you attended. List something you learned that you plan to use with your project. Should attend at least one activity each on management, horsemanship and judging.

Again, this is similar to the questions above. Remind the youth prior to the event that they will have to list something they learned from the activity. This will assist in the development of interpretive and application skills.

4. List the date you:

Expand the youth's involvement with types of activities they might not be used to seeing. Good group activities, and good activities to get opinions from youth as to the horse's abilities and the value of the activity.

5. With your leader, recite from memory the 4-H Pledge. Describe in your own words what the 4-H pledge means.

Group or individual activity, discussion with youth is valuable.

6. Prepare and give a demonstration or speech to other 4-H members or other youth group. Have your leader document your presentation by signing below.

This does not have to be a formal presentation. Leaders can assist with helping the member organize thoughts and preparing an outline so the main points of the presentation are clear to both the member and audience.

What did you find the hardest part of giving the presentation?

Probably will be stage fright, positive reinforcement is important at this stage of development.

What did you feel you gained most by giving the presentation?

May be technical information gained, or increase in speaking abilities, etc.

7. List the names of at least two club or event committees you served on in the past year.

This is a good question to open discussion with the youth. What did the youth feel he or she contributed to the committee?

8. With the help of your leader, parents and other 4-H'ers, assist with planning and conducting a community service activity for your local area. Describe the activity below. How successful was the activity, and what do you feel was the most rewarding part?

Youth should be encouraged to help decide what type of activity a group is going to do. Member may decide that an individual activity would be best. Assist in identifying why an activity is important and what the intended outcome will be.

Part II. How is your ability with horses?

A. Riding Skills

1. Explain the training technique for teaching an inexperienced horse to take correct leads when loping.

There are numerous resources to review for the technical information of this question. Suppleness in the shoulders and back and willingness to direct rein left and right are two pre-requisites. Techniques involve use of circles, bending of the horse's shoulders and two-tracking to position a horse for leads. Youth should identify cues they would incorporate in the process so horse can learn to pick up leads without excessive positioning.

2. Discuss why correct stirrup length is important when riding, and explain how to determine the proper length.

Leg position affects body position and balance. Several resources should show diagrams of proper stirrup length, slight bend in the knees is a uniform characteristic of correct stirrup length regardless of seat. Safety and training both rely on proper adjustment.

3. Explain how to determine the bridle adjustment for correct position.

Same resources as question 2 above. Small differences between bridles are expected.

4. List 10 rules to follow to promote safety at a trailride.

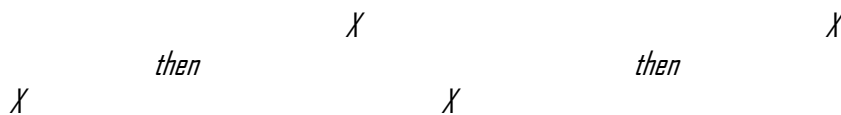
Several resources may be of help. List should include acceptable behaviors of horses and participants, supervision needs, equipment needs, emergency plans, etc.

5. Observe a horse trotting and loping. With the help of your leader, diagram the foot pattern of the trot and lope. How many beats are there in each of the gaits?

Trot: Diagonal pair of legs moves together so there are two beats.



Lope: In the left lead, *the sequence of beats is 1) right hind leg, 2) left hind leg and right foreleg, and 3) left foreleg. Thus, there are three beats.*



SUGGESTED ACTIVITY:

Pair up members so that one member's legs represent the front legs and the other the hind legs of a horse. Can they demonstrate the leg movements of these gaits?

6. Demonstrate Your Horsemanship Ability.

Many of the youth's abilities will require additional tests to challenge them; use the horsemanship levels manuals for additional tasks. Evaluate the youth's abilities and design tests that encourage development in weak areas. Stress basic communication principles with the horse, how to cue a horse for the test, and what safety criteria are especially important. Focus on ability of rider to reinforce rein cues and leg cues. Horse should readily move away from leg pressure. Rider should understand basic principles of cueing a horse and reinforcing the cues based on horse's response.

B. Management Skills

1. Provide estimates for the following expense items:

At a minimum, estimates should give the youth an appreciation for some of the expenses of owning a horse. The question can be answered by interviewing people who supply goods or services, or several group projects can develop from this exercise. Responsibilities can be divided to smaller groups of youth. For example, one group can decide what fence type to use and obtain costs based on amount needed. With the assistance of parents and leaders, youth can determine amounts needed, number of posts, etc. Another group could work on feed costs in a similar manner. Several questions should arise. How much grass can they count on from the pasture? How big is the perimeter of 5 acres? Other areas may require less assistance; i.e. obtaining costs for a halter, saddle and other tack may be easier for youth to do on their own.

2. Can you think of other expenses that you might have if you were purchasing a horse for the first time? Are there other items you would need to consider purchasing? What might they cost?

Horse trailer?, Pasture fertilizer?, Tractor?, etc.

3. Obtain the following information:

This is another idea for involving veterinarians with youth programming. May incorporate a visit to a production farm, demonstration of farm foal manager taking vital signs of a foal, etc.

4. Go to a horse farm, veterinary clinic or other facility that has a 'horse stock' (stallion, examination chute). Measure and record the heights of the sides and the widths of the front or back.

Youth should be able to find examples of stocks on farms and stables. With a little help, youth should be able to draw a diagram of the stocks that shows dimensions.

5. Visit a store that sells dewormer and provide the following information on two different dewormer products.

Teaches comparison-shopping, and need to read the label.

6. Record by weight how much hay and grain your horse is fed in January, April and August.

Bucket and scales shouldn't be difficult to obtain. Question youth about use of pastures and how pastures might supply some of the nutrition at certain times of the year.

7. Identify what signs you look for that suggest a pasture has been overgrazed.

Unfortunately, shouldn't be difficult to find examples of overgrazed horse pastures. OSU Fact Sheets will be helpful.

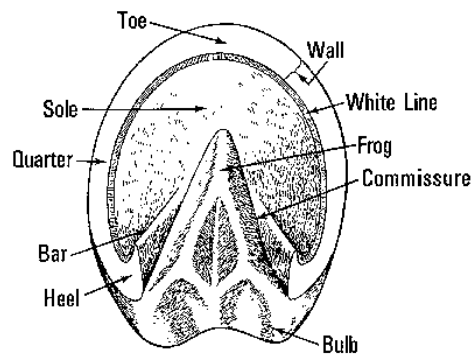
8. List three visual characteristics of high quality hay.

May have a 'hay' scavenger hunt to see who can bring in examples of the worst and best 'looking' hay. Fact sheet on forages for horses may be helpful.

9. List the materials you would include in a first aid kit for someone who trailrides.

Consider items for both the rider and horse. May do as a group project and have members compare lists to develop one that is agreed upon by all.

10. Draw or trace a picture of the underside of a horse's hoof and label the parts (wall, sole, frog, toe, heel). Define 'thrush' and list ways to avoid the condition.



Thrush: Condition found along center and along sides of frog characterized by a putrid dark discharge that is associated with poor growth and disintegration of the horn of the frog. Poor sanitation is a major cause. Clean, dry pens, daily cleaning, proper trimming and shoeing.

11. Individual Tests. With safety in mind, complete the tests with supervision of a leader or extension educator. Alternative tests can be substituted, and additional tests should be added to assist with the development of the member.

Can complete at the member's barn or in group situations as part of a testing day. Add tests that show a youth can safely work around horses on the ground.

C. Identification and Evaluation Skills

1. With your leader, review a set of registration papers for horses. What information is included on the papers?

Owners and breeder's names, horse's name and registration number, parentage verification, markings and other information will be included on papers.

2. What is a pedigree and why might it be important to know one if you are deciding to purchase a horse?

A pedigree is a record of a horse's ancestry, similar to a family tree. Parentage will help determine if a horse will be suitable for your purpose, also parentage will affect purchase price, as some bloodlines are more sought after than others.

3. List 5 parts of a horse and describe desirable conformational characteristics of each that would help a horse perform better (i.e. sloping shoulder, long stride length).

4-H Horse Judging Guide may be helpful.

4. With the help of your leader and other 4-H'ers, obtain the following information from two different horses.

May want to use similar size horses to note differences in like individuals, or different age horses to compare size differences.

5. Define the following terms used in genetics:

Sire: Male parent of a horse Dam: Female Parent of a horse Sib: Brother or sister of a horse

6. List one characteristic of the following types of horses.

Rulebooks and 4-H Horse Judging Guide may be helpful.

D. Careers and Knowledge of the Horse Industry

1. Many opportunities for involvement in the equine industry exist outside your local 4-H club. Use the Internet to search for at least two organizations that you might decide to join. List several reasons why you are interested in these organizations and an email address or phone number of the person you should contact for more information about the organization.

Discuss with the youth, why they chose the organizations and what they expect to gain from being a member.

2. With the help of your leader and other youth, plan a 'make believe' trailride. Consider the place to hold it, who will participate, how you will pay for it and what activities you want to offer. Organize your ideas into a list of arrangements you need to make.

Encourage youth to make a list of needs to have a successful trailride. Place, time, participants, food, costs are examples of topics to discuss. May not be overly detailed at this point. Focus on youth's ability to organize needs into a list more than worrying about details.

3. Some of the many careers people have with horses are listed below. Go through the list, and tell why you would or would not like the career choice. With the assistance of your leader, list other examples and your thoughts about the career.

Discuss with youth what these types of career involve. What would be the good points and bad points of each? Let the Youth discuss these with you and encourage them to visit with people in the profession.

Part III. Project Review and Evaluation

1. With your leader, review the current condition of your project. List one major accomplishment you made and ideas on how to continue and improve in each of the areas.

Did the youth take on more responsibility as the year(s) progressed? What did the youth feel was the biggest accomplishment?

MANUAL THREE

Members should complete Manual Two before completing Manual Three. An explanation of the objective for individual activities and questions in Manual Three is provided below. Use these as suggestions for ideas, not as a strict guide. Review this guide with the Manual Three in hand. Make notes on your thoughts as you go through it, so you can decide which suggestions you want to incorporate in your instruction.

Part I. Are You an Active 4-H'er?

1. Report the number of hours you spent riding, grooming, feeding, and otherwise caring for your project horse(s). *(Record your daily totals on a calendar and write monthly totals below.)*

Encourage members to write totals on a daily calendar. Review time spent by activity and times of the year. Discuss how planning objectives and organization will help manage time during busy months.

2. Which month did you accomplish the most in advancing the training of your horse?
3. What type of training, exercising or groundwork were you most able to accomplish?
4. What type of training, exercising or groundwork did you feel was the hardest to accomplish?

Questions 2-4 serve as a discussion topic with youth to explain their training approaches.

5. List the date of at least five horse shows, trailrides or other events you participated in with your horse. Also, list something you felt was a big accomplishment you gained from the activity.

This is similar to question 1, with emphasis on recording some type of accomplishment. The accomplishment may or may not be technical information about horses. It may be related to the youth's social development with other youth, etc. Good discussion with the youth will be the key. Parents can provide insight by attending the activity with the youth.

6. List the date of at least five clinics, tours or demonstrations on horse management, use and care that you attended. List something you learned that you plan to use with your project. Should attend at least one activity on management, horsemanship and judging.

Again, this is similar to the questions above. Remind the youth prior to the event that they will have to list something they learned from the activity. This will assist in the development of interpretive and application skills.

7. List the date and topic and audience of at least one demonstration on horsemanship, horse management or horse judging you gave to 4-H'ers or other youth groups.

Youth may need assistance in selecting a topic and organizing demonstration. May be a good activity as part of a meeting or horse activity. Encourage older teens to pass information along to younger, less experienced youth.

8. Identify the name of at least one less experienced or younger 4-H'er that you taught something on horse management, horsemanship or horse judging. Describe the topic and what you think the person learned.

Like question 1, this may be a group presentation or one-on-one.

9. List the name and date of at least one social activity that included other 4-H'ers that you helped plan and organize.

Youth may need help in identifying what the purpose of the activity was. What changes would they make for the next activity?

10. List the name of at least one individual not directly associated with your 4-H club that you arranged to give a presentation to your club or group. What topic did the individual present?

Ability to make contacts, approach adults, etc. should be developed by encouraging the youth to do the actual arrangements.

11. List the name and date of at least one community service project you helped to organize and conduct. Describe the activity below. How successful was the activity, and what do you feel was the most rewarding part? What would you recommend to do differently if you were to do it again?

Youth should be encouraged to help decide what type of activity a group is going to do. Member may decide that an individual activity would be best, although working with groups of peers should be stressed. Assist in identifying why an activity is important and what the intended outcome will be.

12. List some activities you would recommend for younger 4-H'ers or other horse youth groups that would involve learning about horses? At what type of activities do you think the younger youth would have the most fun?

Youth can gain an understanding about 'age appropriate' activities for younger 4-H'ers. Several pieces of 4-H literature are available on the subject to help in your guidance.

Part II. How is your ability with horses?

A. Riding and Training Skills

1. Visit with someone in your area with experience in breaking young horses to saddle and early training. Outline some of the training procedures they do before riding a horse for the first time. What behavioral characteristics do they look for to decide the horse has progressed enough to be mounted for the first time?

This question should encourage youth to explore the training of young horses. Understanding the behavior of a young horse will help youth recognize more subtle expressions of older, broke horses. Behavioral responses may range from fright, anger, and acceptance. Youth should describe how to recognize the responses so they can determine what steps to take to promote the positive, and to decrease the negative. Discussions may emphasize a variety of topics including safety, facilities and trainers actions. Youth should be encouraged to think through steps, cues and reinforcements. OSU videotapes and fact sheets on training young horses may prove useful. Discussions and observations with trainers who start young horses should also help.

2. Observe a young horse being ridden. How trained does the horse appear to be in its ability to be guided, stopped and turned? What is the horse doing that suggests how well trained it is? What actions does the horse display when the rider cues the horse with rein action? Which of these actions do you see as positive and which do you see as negative?

This is a progression of questions 1. A young horse with several previous rides, 30 to 60 days of training, is a good stage of training to observe.

3. Visit with someone in your area with experience in training jumping horses. Outline the training steps used to teach an inexperienced horse to jump.

Several techniques may be listed, depending on the individual trainer. This is a good training area that emphasizes the need to train horses with a progressive, step-wise approach.

4. List ten safety rules you would make younger riders follow if they were receiving lessons from you in a group riding time.

Lists should include rules on allowed behaviors around horses and people, wearing proper clothes, tack inspection, etc.

5. Demonstrate Your Horsemanship Ability.

Use tests appropriate to level of youth's expertise, several may be beneath the level of a particular youth. You may want to use the Oklahoma 4-H Horsemanship Levels Manuals Level 3 tests.

B. Management Skills

1. Consider owning a breeding stallion. You want to set up a business of breeding mares owned by other people. What costs would you charge these mare owners? Prepare a bill that lists a reasonable fee to charge for at least four different items.

Stallion fees, mare care, veterinary services, farrier services are examples that youth should find easily. Preparing a bill that includes other costs, and one that estimates a reasonable fee to charge may necessitate a visit to a breeding farm.

2. Estimate the following costs associated with raising a foal.

This emphasizes the need to include costs of mares and breeding costs with a foal. OSU fact sheets may prove helpful. Likewise, interviews with someone in the horse production business may be of benefit.

3. List the recommendations from a veterinarian for vaccinations of a broodmare, and provide the costs of each vaccination. How much is your total estimate for vaccinations for a broodmare for one year?

Vaccinations may include rhinopneumonitis, tetanus and sleeping sickness among others.

4. Discuss with your leader methods used to teach a foal to lead. Answer the following questions. At what age do you recommend a foal become accustomed to a halter? What type of facilities would you recommend to use when halter breaking foals? What are some of the responses you expect from the foal?

OSU fact sheets may be useful. Interviews with experienced horse owners should also be encouraged.

5. Prepare a short advertisement that you would submit to a newspaper for selling a riding horse.

One activity that may help is to encourage youth to bring examples of ads they find most effective, and discuss among themselves what they like about the different examples. A presentation by someone who works in the area such as a newspaper person may provide opinions on how to organize and display an ad.

6. Define what 'floating' horse's teeth means. Why would 'floating' be necessary?

Veterinarians can demonstrate this technique to youth. Floating involves rasping molars (back teeth) to remove projections, rough edges and uneven wear. This is done to promote chewing of feed and becomes necessary as teeth wear with use and age. Otherwise, horse may have difficulty with eating, swallowing, etc.

7. Explain how you would treat a small cut on a horse. What type of medicines would you use?

Discussions with local veterinarians will be helpful. Youth should be able to select medicines based on their intended use, i.e. cleaning agents, caustic agents, antibiotic ointments, etc. Using improper medicines for first aid may be harmful to the healing process. Also, left unattended, small wounds may turn into more serious problems because of infections.

8. Record the weight of the following:

Stresses to feed grains and hays by weight instead of volume. Information in OSU fact sheets will explain why.

9. Collect the following materials to conduct an experiment: five one-gallon containers, a pound of four different types of bedding materials (straw, shredded paper, sawdust and wood shavings), a small scale to weigh one-half pound amounts of each bedding material and a measuring cup for water.

This should provide a fun approach to educating youth on the differences in beddings. This experiment measures water-holding capacities of various bedding materials, something of importance when using bedding to collect urine in stalls.

10. Why would knowing the differences found in the above experiment be important to stable owners?

Relates experiment in question 9 with decision-making.

11. What do owners with not enough land to spread waste, do with stall wastes?

May find that waste disposal is a problem for some. Discuss with the youth what some good alternatives may be, i.e. disposal in proper areas so watersheds are not affected, use of bedding as a soil conditioner or fertilizer, etc.

12. Prepare a barn checklist that others can use to reduce the chance of fire around or in their barns.

Encourage youth to examine their barn areas in terms of fire danger. A discussion with local fire safety people may be of benefit.

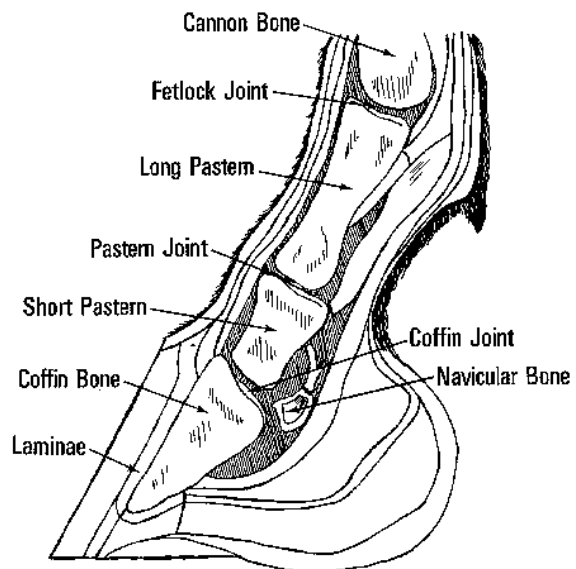
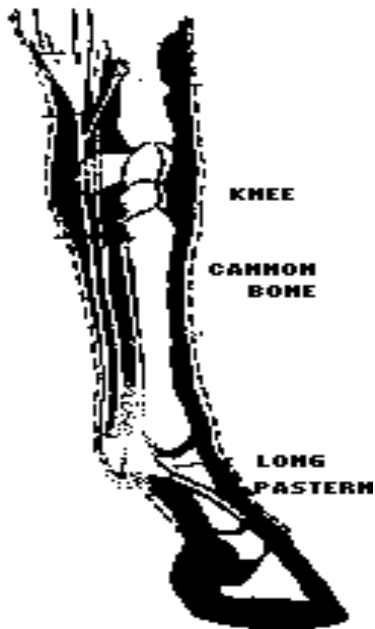
13. List several management practices you would recommend horse owners follow to reduce the number of flying insects around their barns.

List should include management practices that interrupt the life cycle of insects as well as use of chemical agents to repel or kill insects. Several OSU Fact Sheets may be beneficial.

14. List at least one advantage and one disadvantage of feeding hay in the following methods.

Advantages and disadvantages should include areas such as waste, hay loss, dust and respiratory problems, safety, etc.

15. Trace or draw a picture of a horse's lower front leg and hoof identifying the names of bones. Identify by location the place that is affected with the following conditions: Laminitis, navicular disease, shin buck



Laminitis-inflammation of laminae of hoof
Navicular Disease-deterioration of the navicular bone
Shin buck-inflammation of the bone covering of the front side of the cannon bone

16. Diagram a floor plan for a four-stall barn showing size of the barn, stalls and other areas enclosed in the barn structure. Also, provide height measurements for stall walls and the type of material(s) you recommend for constructing stall walls and fronts.

Youth should emphasize relationship of stalls with other areas for useful and safe horse handling.

17. Individual Tests. With safety in mind, complete the tests with supervision of a leader or extension educator. Alternative tests can be substituted, and additional tests should be added to assist with the development of the member.

Can complete at the member's barn or in group situations as part of a testing day.

C. Identification and Evaluation Skills

1. With help from your leader, find as extreme examples as possible of horses with the following front leg conformations:

The more extreme the deviations you can find, the more obvious the differences in movement may be.

2. Watch each of the horses walk and trot toward you and away from you paying particular attention to how the lower legs move. Do the legs swing outward when moving? Do the legs swing inward when moving? Do they move in a straight line? Do the hooves hit the ground directly in front of their position with the horse's body? Do the hooves land closer together than their position when standing? Do the hooves land farther apart than their position when standing? Describe your observations for each of the horses below:

Horses with legs and hoofs that point inward or outward will have foot paths that cause the legs to swing inward or outward when moving. Have youth diagram footpaths of the various examples, and discuss why the ability to evaluate this may be important when selecting horses.

3. Obtain the help of a rider that has a horse between 15 and 16 hands tall. Measure the actual height of the horse and record below.

This and the following series of questions are designed to emphasize the characteristics of the various gaits, and teach the ability to evaluate gait differences in horses. Determining stride length and then comparing two different size horses by determining ratios of stride length to size teaches youth to make uniform comparisons of quality of stride between horses.

4. Do the same measurements for a rider with a horse or pony 14 hands or shorter.
5. Determine the following ratios of height and stride length for each horse.
6. Did one of the horses have longer or shorter strides at all gaits in relation to the wither height (larger ratios in question 5)? Did the horses vary between gaits? Discuss with your leader why stride length measurements may be important to evaluate when selecting horses for specific uses. Does changing the distances to ratios of body height make observations more or less comparable?

Smoothness of gait and stride length related to suitability to purpose are two reasons to be able to evaluate stride length when selecting horses.

7. Define the following genetic terms:

Phenotype: what we observe or measure in an animal for some trait. What we observe is influenced by factors in addition to genotype. For example, how fast a horse grows is due to its genetic make-up (genotype) and the amount of nutrition.

Genotype: the actual genetic make-up of an animal. Two different genotypes may be expressed the same. For example, tobiano spotting pattern of paint horses may be homozygous dominant (TT) for the gene pair, or heterozygous dominant (Tt) for the gene pair with the same phenotype expressed: tobiano.

8. Visit with someone who owns a breeding stallion and mare and obtain their thoughts on what traits they try to breed into foals, what traits of the stallion and mare they try to emphasize and why they feel it is important for the value of their foals.

In order for selections of breeding to be effective, traits must be heritable (genetically passed from parents to offspring). Some of the traits that breeders select for have high heritabilities, i.e. traits seen in parents are observed very similar in their offspring. Other traits may be less heritable, and differences more influenced by the horse's environment.

9. List and describe at least four issues to consider when buying a riding horse.

Suitability: Is the horse broke enough for my level of riding? Is this horse going to perform the tasks I want?
Soundness: Is this horse healthy? Is this horse structurally sound enough to not cause problems in the future?
Price: Is this horse in my price range? Is this horse worth the money the owner is asking?
Age: Is this horse old enough to be appropriate from my riding level? Is this horse young enough that I will get some good years out of him?
Training: Has this horse had enough training to suit my riding level and expectations?
Attitude and Temperament: Is this horse spooky? Does it have any bad habits? Is the horse dangerous?

10. Use the Internet to search for and compare at least two different web sites to buy horses. List the sites and several pros and cons of each.

The youth will find many sites where people list horse's for sale.

11. List one major advantage and one major disadvantage of shopping for horses on the Internet.

Advantages: Wide range of sellers, many types of horses in one spot, don't have to travel, world wide advertising
Disadvantages: Might not be feasible to travel to the horse, unreliable sellers, ads may not be updated.

D. Careers and Knowledge of the Horse Industry

1. With the help of others with an interest in horse events, plan and conduct a survey that will measure the benefits of a particular horse event in your locale.

Activity is useful to emphasize the economic impact of horse events. This and following questions raise awareness to the importance of events to economies of locales.

2. What travel expenses do the participants have?
3. Where do the people:
 - Stay if activity requires an overnight stayover
 - Eat
 - Buy other items such as fuel for traveling
4. How much do you think a participant and their family, helpers etc. spend on eating, lodging, and other items while participating in the event?

Questions five through eight are intended to develop youth's ability on preparing for a future career. Decisions on future jobs and careers require a youth to be able to evaluate their strengths, goals and desires. It also requires investigation of different career choices. Encourage discussion.

5. Discuss each of the following items with your leader, family member, or high school counselor, and make notes below. Record the date and name of person you worked with to make your notes.
6. With the help of your parents, leader or school counselor, fill out the following. Record the date and person you worked with to make your notes.
7. How well do you feel the self-analysis and the career profile match?
8. What do you think you need to do to make a good career choice?

Part III. Project Review and Evaluation

Did the youth take on more responsibility as the year(s) progressed? What did the youth feel was the biggest accomplishment? Youth should be able to define their own interests, and have ability to plan to increase abilities in the future.

1. With your leader, review the current condition of your project, list one major accomplishment you made, and ideas on how to continue and improve in each of the areas.
2. What is your main area of interest with horses?
3. How do you plan to increase your ability in your main area of interest with horses?
4. What careers are you considering?

MANUAL FOUR

Members should complete Manual Three before completing Manual Four. An explanation of the objective for individual activities and questions in Manual Four is provided below. Use these as suggestions for ideas, not as a strict guide. Review this guide with the Manual Four in hand. Make notes on your thoughts as you go through it, so you can decide which suggestions you want to incorporate in your instruction.

Part I. Are You an Active 4-H'er?

1. Report the Number of Hours you Spent riding, grooming, feeding and otherwise caring for Your Project Horse(s) *(Record your daily totals on a calendar and write monthly totals below)*
2. Which month did you accomplish the most in advancing the training of your horse?
3. What type of training, exercise or groundwork were you most able to accomplish? How does this compare to your thoughts when asked in the previous manual?
4. What type of training, exercise or groundwork was the hardest to accomplish? How does this compare to your thoughts when asked in the previous manual?
5. List the date of at least five horse shows, trailrides or other events you participated in with your horse. Also, list something you felt was a big accomplishment you gained from the activity.
6. List the date of at least five clinics, tours or demonstrations on horse management, use and care that you attended. List something you learned that you plan to use with your project. Must attend at least one activity each on management, horsemanship and judging.

Questions 1 through 6 are same questions in Manual Three with same objectives.

7. List at least two offices and/or committees you chaired as part of your local 4-H club or other youth clubs.
8. List at least one community service project you organized and led as part of your local 4-H club or other youth clubs.
9. List at least two demonstrations and/or clinics you gave to other youth on horse management or use.
10. Describe one way you aided with the publicity of a 4-H activity to non-4-H participants.

This could include shows, fairs, workshops, membership drives, and community service projects.

11. List the date, name and location of at least two 4-H functions other than those within the horse project that you attended at the county, district or state level.
12. List two or more 4-H projects you participated in other than the 4-H horse project.

13. List the year or years during which you have served as a teen leader.
14. In your own words, list what you think are the objectives of a 4-H horse project. Would you recommend 4-H involvement to other youth? Why or why not?

This is a good question for leaders to obtain feedback about 4-H involvement from the participant's viewpoint. Should be helpful in organizing future activities.

Part II. How is your ability with horses?

1. Complete the following activity to test your teaching and technical skills of training a young horse.

The skill-a-thon approach to problem solving is an effective tool for the experiential learning process discussed in the first section of this guide. Many different topics can be included. It is also a good tool to use for membership drives, community service projects or other activities targeted to the general public.

- a. Planning. How many stations did you prepare? List the problem you want participants to solve at each station. How are you going to emphasize hands-on learning?

Allow the youth to develop ideas in lieu of being told what to cover. Leaders will want to keep the ideas in line with the target audience so activities are safe, and interesting.

- b. Doing. Did you allow the participants to try the activity before being told how to accomplish the activity? Did you provide enough supervision to make sure the practices were safe for the participants and horse?

The success of the skill-a-thon depends on the involvement of the participants, so emphasize ideas that actively involve participants.

- c. Evaluating. What went well? What part of the activity did the participants enjoy the most? What problem did the participants handle most efficiently? What problem did they have the most difficulty with? Were their difficulties because of limited technical expertise or because of the way you designed the activity? What would you do differently if conducting this 'skill-a-thon' again?

A discussion group should be held following the event so organizers have the opportunity for feedback. It will also aid in planning of future skill-a-thons.

- d. What is one item you learned about your teaching abilities while completing this activity?
2. For this activity, you will need to be able to estimate heart rate by using a stethoscope to count heartbeats or by counting the pulses of blood that pass as you apply small pressure on an artery. Your veterinarian can show you where to listen for heart sounds and where to feel pulse rates (There is an artery that passes under the jaw that is a good place to take pulse rate). You will also need a helper with a stopwatch or watch with a second hand. You will also need a horse and rider to perform exercise at a trot and lope.

First, obtain a resting heart rate. Because heart rate will go up when a horse is excited or exercised, it is best to take this measurement before the horse is tacked and when the horse is quiet. Take this measurement by counting pulses or beats for 15 seconds. Multiply your measurement by four to obtain beats per minute. Then tack up the horse. Make sure that the horse you use has been ridden enough to be able to lope for four minutes without fatiguing. If you are using the same horse, give the horse time for complete recovery from the first experiment before beginning the second. Fill in the following chart by obtaining measurements the same way as you did for resting heart rate.

This should be a good group activity for all youth. The first step is for the youth to learn how to take a pulse or heart rate. These measurements will be the most difficult to obtain for the post-exercise measurements. A veterinarian may be helpful, and use of a stethoscope will be extremely helpful. Expect resting rates around 30 to 40 beats per minute. These rates will usually rise 10 to 20 beats per minute when horse is mounted before exercise because of excitement. Heart rates post trotting may be in the 80 to 90 range depending on the fitness of the horse. Rates post lopeing will be higher, maybe around 150 to 160 beats per minute or higher. The rates should decline post exercise with most dramatic decline within two minutes post exercise. Maximum rates for horses are around 200 beats per minute. The chart should show these trends.

3. What heart rate response would you expect from a horse that was in better physical condition?

Lower heart rates at the end of exercise, and quicker recovery rates.

4. What heart rate response would you expect from a horse that was in lower physical condition?

Higher heart rates at the end of exercise, and slower recovery rates.

5. Why would knowledge of heart rate responses be of interest to trainers of racehorses?

Heart rate response can be used to determine how fit a horse is becoming when asked to perform a specific task, as the more fit the horse becomes, the lower the heart rate needed to complete the task. It also may indicate that the horse is abnormally stressed when heart rates are abnormally high.

6. Sketch a curb bit (bit with shanks) and a ring snaffle bit, identifying the following parts if applicable to the bit: upper shank, lower shank, ring, mouthpiece, port, and curb.

Snaffle will have rings and a mouthpiece. If mouthpiece is solid, may have a port. Curb bits will have a shank above the mouthpiece, below the mouthpiece and a curb strap attached. Mouthpiece, if solid, usually has the raised portion (port).

7. Identify at least five different places a curb bit can apply pressure on or around the mouth when rein pressure is applied.

Tongue, bars (lower gums between incisors and molars), lips, curb, nose, roof of mouth, poll

8. Identify at least two different places a ring snaffle bit can apply pressure on or around the mouth when rein pressure is applied.

Tongue, curb, lips

9. Identify what the following designs of a bit would do to the intensity (more, less, no effect) and placement of rein pressure.

DSU Fact Sheet on biting is one potential resource

Longer length of lower shank in relation to upper shank length:

More

Smaller diameter mouthpiece of a ring snaffle:

More

Twisted or rough texture of mouthpiece:

More

Straight, solid mouthpiece with no port:

More

Wider port:

Less, unless it is so high as to affect the roof of the mouth

Tighter curb strap:

More

10. Explain the difference in action and use of basal hackamores and mechanical hackamores.

Bosals are used in early training, have no mechanical or vise-type action other than leverage from the pull of the reins. A mechanical hackamore is designed to increase leverage by creating a clamping action around the horse's nose and jaw. Mechanical hackamores are used less in training inexperienced horses, and more for use in experienced roping and speed event horses.

11. Identify the difference in action and use of a standing martingale (tiedown) and a running martingale.

A tiedown is designed to brace the horse's nose so the horse is restricted in how far out he can extend his face in front of his neck. It is used in speed events on horses that respond well to the 'bracing' action when stopping and turning. A running martingale is a device used to maintain a low rein pressure with ring snaffle bits when a horse elevates its neck and head excessively. As such, it is used as a training aid with snaffle bits.

12. Define the following terms related to training responses.

Flexion

The degree a horse bends its head toward the body by bending the throatlatch and shoulder joints of the spine.

Collection

The degree a horse moves with its center of balance under its body. Collection is created by impulsion from the hindquarters, a balanced stride of fore and hind legs, and a low center of gravity assisted by head and neck position.

Supple

Strong, yet flexible. The type of response needed when the horse is moving to cues when moving forward.

13. List your training suggestions to help cure the following vices or training problems:

These refer to the need to bit the horse, teach the horse to respond to leg and hand movements, etc. May get general suggestions to 'work on these basics' or more specific techniques.

14. Demonstrate Your Horsemanship Diversity.

You may find Level Four of the Oklahoma 4-H Horsemanship manual an aid for developing appropriate tests.

15. Visit a farm with groups of horses (may want to compare groups of older and younger horses) housed in large pastures. With the assistance of the farm manager, place an object that the horses are not used to seeing in the middle of the pasture (don't place it near a fence or in a corner as horses may run from it when first seeing it). Use something that will not injure the horses if they paw or run over it (a plastic or paper bag, bed sheet, brightly colored ball or a light colored cardboard box are suggested examples). Observe the horses from a distance and note their behavior when they see the object. Was one horse more curious than another? What actions did you observe among the different horses?

This is a basic experiment used to teach youth about horse behavior. When horses are exposed to an unfamiliar object in their area, they will exhibit several behaviors: investigative, play, flight, aggression, etc. Younger horses usually exhibit more intense and longer responses than older horses that have experience with introduction to unfamiliar situations and objects. Using a large area will avoid the horses becoming frightened without an escape route. It doesn't take much of an object to observe the responses. Frightening the horses is not the objective of this exercise. Ask how these natural responses to unfamiliar objects affect our behavior around a horse in terms of safety and training.

16. With the assistance of your County Extension Educator, prepare and send the following to testing laboratories.

Discuss with youth the importance of having objective, quantified measurements when making choices.

17. Identify health problems that can happen when horses consume the following:

Fescue Hay

OSU Fact Sheet on Fescue and Horses will help.

Sorghum pasture

OSU Fact Sheet on Forages for Horses will help.

Acorns

Check with veterinarian or toxic plant websites, acorns like many other plants and seeds contain toxins (tannins) that causes digestive upset.

Sand

Impaction of the digestive tract.

18. Compare the following types of feed by completing the following table. Use a feed source text or information sheet that lists the expected concentration of the following feeds.

There are OSU fact sheets on feed selection for horses that can provide the information.

19. Using the information in the previous question, calculate the expected nutrient concentration of the following feed mix: 1100 pounds of oats, 800 pounds of corn, 90 pounds of soybean meal, 6 pounds of ground limestone and 4 pounds of dicalcium phosphate.

Total mix is 2000 pounds. Multiply nutrient content of each ingredient by the percent the ingredient is of the total mix and add all ingredients together. For example, the percent protein of a feed mix containing 200 pounds of oats (11% protein) and 100 pounds of corn (9% protein) would be as follows: $((200/300) * 11\%) + ((100/300) * 9\%) = (.67 * 11) + (.33 * 9) = 7.37 + 2.97 = 10.34\%$

20. Using the information in questions 18 and 19, calculate the expected nutrient content of combining 10 pounds of prairie hay with 8 pounds of the grain mix.

Multiply pounds of each feedstuff by its nutrient concentrations and add together using same procedure as in question 19.

21. Conduct the following experiment to see what the best solution for storing feed might be.

Collect samples of three different grain sources fed to horses. Choose from available sources of pelleted feeds, sweet feeds and single grains. Collect enough of each grain mix so you can further divide each mix into three one-cup sub-samples. Place the one-cup sub-samples into plastic zip-lock sandwich bags. Label each bag clearly. By doing so, you should have 9 individual bags of grain mixes, three bags of each mix.

Results should emphasize need for storing feedstuffs in dry, protected containers. Experiment is designed to detect results that were due to grain sources and results that were due to storage differences.

22. List five feeding management rules you emphasize in your feeding routines of your horses.

OSU Fact Sheet on Feeding Management will be of help.

23. Define the following terms that relate to breeding programs of horses.

There are several OSU Fact Sheets on Reproduction and Foal Management that will serve as good resources for questions 24 through 29.

24. List the following characteristics of the expected 'normal' estrus (heat) cycle of mares.

25. List two methods to determine pregnancy in mares. How soon following breeding can each method be used with a high level of accuracy?

26. Explain the use of body condition scores and why assessing body condition is important to breeding managers.

27. If you were managing a breeding farm, what information would you require mare owners to provide when delivering a mare to be bred to your stallion?

28. How long is the expected gestation length of mares? What changes in a mare's body and behavior can be observed when mares approach their foaling time?
29. What procedures are recommended for the foal immediately following birth?
30. Diagram an aerial view of a proposed farm that has both training and breeding operations. Identify the type of facilities, giving particular attention to location of activities. Position your facilities to make efficient use of labor and efficient traffic flow of horses, machinery and vehicles.

Emphasize the need to consider ease of use, safety and placements that will decrease the need for labor.

31. Visit with someone in the business of barn construction to provide recommendations for site preparation including drainage needs. List important points below.

Questions 31 through 33 might be answered by inviting a speaker to present information on the topic to a group meeting.

32. Visit with an attorney to obtain some important facts about the legal needs of horse owners (liabilities, contracts). List at least two of the most emphasized points below.
33. Visit with someone who is knowledgeable in tax preparation as related to the horse business. List at least two of the most emphasized points regarding tax preparation for horse owners (records, specific rules and regulations that apply to horse businesses, procedures important for horse owners to follow).
34. Develop a pre-transport checklist that assists in the preparation of the trailer, equipment and tack for hauling a horse. Be specific and complete by identifying routines that emphasize trailer safety, and preparation and packing of equipment and tack.
35. Use three horses that are not familiar with you but are safe and easy to handle. Conduct the activities below and make notes on the horses' behavioral traits.

Also a possible good activity for groups.

36. Use the following body condition scoring system to do the following activity.

This is a good exercise to include discussions on how individuals behave and respond in group situations. Emphasize the need to develop skills in leading groups when there are differences in opinion.

37. Conformational balance refers to the relation of size and proportion of individual body parts with one another. A balanced body allows for more physical advantage for movement in horses. Balance is measured and described several different ways. One measure of balance is how equal the distance from the withers to the bottom of the heartgirth is to the distance from the bottom of the heartgirth to the ground. The more equal the more balanced from top to bottom. Another measure of balance is equating the size of the shoulder, mid-region and the hip. The distance from the point of the shoulder to a line running down the body from the back of the withers (length of shoulder) should be equal to the distance from this line to the beginning of the hip region (length of mid-region). Each of these two

distances should also be similar in length to the distance from the start of the hip to the back of the hip (length of hip). With this in mind, complete the following exercises.

The Oklahoma 4-H Horse Judging Guide has more information.

The next exercise will require a camera. Use the horse that has the most balance of body. With the aid of a handler, position the horse's legs squarely under its body as if showing in a halter class. Standing about 15 to 20 feet away from the horse's body, take pictures of the entire horse when standing in three different locations: Directly in line with the middle of the horse's body, directly in line with the head of the horse and directly in line with the rear of the horse's hip. Make sure you stand equal distance from the horse with each of the shots and have the handler position the horse's head and body the same for each shot. Also, include all the horse in each of the photos so that you take one photo straight on, one angling from the head back and one angling from the hip forward. You might want to take additional photographs maintaining your distance from the horse but slightly altering the angles you shoot the photos.

Stresses the need for objective observation, and comparing individuals under similar situations and views when evaluating.

38. Purchasers of horses routinely request pre-purchase exams be conducted to determine the health status of a horse they are considering buying. With this in mind, complete the following exercises.

One source of information is an OSU Fact Sheet on Prepurchase Exams for Horses.

39. Attend a commercial horse auction and record the prices of 10 consecutive selling horses in the sale. While watching the horses sell, make notes as to the appearance of the horse, intended purpose, training abilities, pedigree or other attributes that you feel had an influence on price. From your observations, why did some of the horses sell for higher prices than others? Be as specific as possible.

List should include items characterizing pedigree, records of ancestors, breeding value of the individual, training of the individual and its conformation.

40. There are several concerns that the general public may have about horse production and use. With other members, discuss and record why there may be a concern in the following areas. Also, provide a possible solution for each concern.

General topics of answers should include public's acceptance of practices and regulations on use, and how these affect horse ownership.

41. Develop a plan to estimate the number of horses in your town or county. Outline your plan below. What sources of information would you use? What methods could you employ? Who could you ask to assist?

This is another good group activity.

42. With the assistance of someone in the advertising business, prepare a newspaper or magazine ad to promote a 'make-believe' product for use with horses. Be creative in developing your product. You are encouraged to use a computer, and attach your add to this manual

A good opportunity to include a non-horse owning person as a resource.

43. Consider the following situation: A local television station wants to interview you about animal welfare issues that relate to why horses are treated the way they are. Possible questions include why horses are handled certain ways, how they are housed, how they are transported, riding practices, farrier practices, and veterinary procedures. With the help of another member, prepare a video interview in which he or she asks questions concerning why certain practices are conducted. You will play the part of a horse owner responding to the questions. Videotape a short interview that includes at least five questions. Show the tape to your leader. Discuss and report the following.

This is another opportunity for group work. Stress the need to base opinions on factual information.

44. Prepare a resume that includes your goals, past academic and extra-curricular activities, work experiences and references that can be used for applying for scholarships for college. Review your resume with your high school counselor, parents and others that may be of assistance in evaluating the resume. Identify who reviewed your resume.
45. Via computer, investigate the cost and opportunities of your career interests at a two-year degree program at a junior college, a four-year degree program at a college or university, and a diploma or certification from a trade or vocational school. Discuss with your family.

Part III. Evaluation

1. Based on your years of being a member in 4-H, what would you consider to be some of the most rewarding, memorable experiences with your project activities?
2. Did your experience in 4-H provide you any specific skills that you can list that you think will help you in the future with further education, jobs or life in general?
3. Do you plan to continue your activities around and with horses? If so, what do you guess your involvement with horses will be in 5 years?

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