

Horse Kit Curriculum



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2709 Mondovi Road
Eau Claire, WI 54701 USA

800.830.1416

+1.715.830.2040

www.realityworks.com

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Author



Mindy McIntosh-Shetter has a background in agricultural education and taught many years as an educator and department chair for agricultural education at Pleasure Park High School in Indiana. She has worked not only in the classroom focusing on animal science, but also as a blogger, video blogger, and author focusing on the topics of landscape design, education, and plant science. She has helped to create hands-on learning in her classroom and brings this expertise to this curriculum as well.

Curriculum Structure

The *Horse Kit Curriculum* is composed of the following lessons. Approximate lesson times are included.

Lesson	Title	Approximate Time
One	Horse Breeds	60 minutes
Two	Feeding and Management	60 minutes
Three	Horse Diseases and Parasites	60 minutes
Four	Horse Reproductive Systems	60 minutes
Five	Intro to Horse Body Systems	60 minutes
Six	Horse Selection and Judging	60 minutes
Seven	Marketing, Careers, and Training	60 minutes
	Total	7 hours

Lesson Structure

Each lesson begins with a Lesson Overview, Lesson Objectives, and a Lesson at a Glance table that lists lesson activities, materials required, suggested preparation steps, and approximate class time.

Lesson Sections

The actual lesson follows the overview, which contains some of the sections described below.

FOCUS

Every lesson begins with a FOCUS activity intended to capture participants' attention. This may be in the form of a small or large class discussion, a game, a demonstration, or a review of previous lesson information. During this activity, participants are introduced to the topic of the lesson.

LEARN

The LEARN activity in each lesson varies in its presentation mode. It may be a slide presentation, group activity, or demonstration.

REVIEW

The majority of lessons end with a REVIEW activity intended to briefly review the lesson's key messages or main points.

Lesson One – Horse Breeds

Lesson Overview

Participants will learn the physical characteristics of each horse breed along with other identifying traits.

Lesson Objectives

After completing this lesson, participants will be able to:

- List the top horse breeds in the United States
- List traits for each breed
- Define terms associated with horses
- Discuss common uses for each breed

Lesson at a Glance

Activity	Materials	Preparation	Approximate class time
FOCUS	• <i>Intro to Horse Breeds</i> worksheet • <i>Intro to Horse Breeds</i> – Answer Key	1. Print/photocopy <i>Intro to Horse Breeds</i> worksheet (one per participant)	10 minutes
LEARN	• <i>Horse Breeds</i> slide presentation • <i>Horse Breeds</i> worksheet • <i>Horse Breeds</i> – Answer Key	1. Print/photocopy <i>Horse Breeds</i> worksheet (one per participant) 2. Prepare <i>Horse Breeds</i> slide presentation for viewing	40 minutes
REVIEW	• <i>Horse Kit Breed ID Flashcards</i> • <i>Horse Breeds Quiz</i> • <i>Horse Breeds Quiz</i> – Answer Key	1. Prepare <i>Horse Kit Breed ID Flashcards</i> 2. Print/photocopy <i>Horse Breeds Quiz</i> (one per participant)	10 minutes

Lesson One – Horse Breeds

FOCUS: Intro to Horse Breeds

10 minutes

Purpose:

Participants will be introduced to different horse breeds and terms used in the horse industry.

Materials:

- *Intro to Horse Breeds* worksheet
- *Intro to Horse Breeds – Answer Key*

Facilitation Steps:

1. Distribute the worksheet and provide directions on how to complete it.
2. Give participants five minutes to fill out the worksheet before having them exchange papers.
3. Go over the answers with the class.
4. Collect the worksheet.

Name: _____ Class: _____

Intro to Horse Breeds

Directions: Match the numbered terms to the lettered definitions at the bottom of the page.

- | | |
|-------------------------|------------------------------|
| 1. Horse _____ | 9. Chestnut color _____ |
| 2. Snip _____ | 10. 4 inches _____ |
| 3. Pinto _____ | 11. Stripe marking _____ |
| 4. Palomino color _____ | 12. Sock marking _____ |
| 5. Blaze marking _____ | 13. Bay color _____ |
| 6. Pony _____ | 14. Black color _____ |
| 7. Hands high _____ | 15. Bald-faced marking _____ |
| 8. White color _____ | 16. Star marking _____ |

- A. Name of a horse breed and coat color
- B. A small white spot on the forehead that looks like a star
- C. Measurement term used to describe the height of a horse
- D. This term describes a horse that is 14.3 hh in height or shorter
- E. A description of a horse with the same coat and skin color
- F. Is the measurement for a hand
- G. Describes a reddish-brown coat with black points on the legs as well as a black mane and tail
- H. A small white spot on the forehead that can be any shape
- I. An equine that is taller than 14.3 hh
- J. To be this color, the skin must be pink
- K. Describes a face with a white spot that covers most of the face
- L. Describes a narrow white line that goes down the front of the face
- M. White marking on the leg(s) that goes up to the knee
- N. Describes a coat that is reddish-orange with a matching mane and tail
- O. Describes a coat that is golden with a flaxen mane and tail
- P. Is a white stripe that is wide and runs down the front of the horse's face

Intro to Horse Breeds – Answer Key

Directions: Using the answers at the bottom of the page, match them to the terms numbered by place the correct letter in the blank.

- | | |
|--------------------------------------|---|
| 1. Horse ____ I ____ | 9. Chestnut color ____ N ____ |
| 2. Snip ____ H ____ | 10. 4 inches ____ F ____ |
| 3. Pinto ____ A ____ | 11. Stripe marking ____ L ____ |
| 4. Palomino color ____ O ____ | 12. Sock marking ____ M ____ |
| 5. Blaze marking ____ P ____ | 13. Bay color ____ G ____ |
| 6. Pony ____ D ____ | 14. Black color ____ E ____ |
| 7. Hands high ____ C ____ | 15. Bald-faced marking ____ K ____ |
| 8. White color ____ J ____ | 16. Star marking ____ B ____ |

- A. Name of a horse breed and coat color
- B. A small white spot on the forehead that looks like a star
- C. Measurement term used to describe the height of a horse
- D. This term describes a horse that is 14.3 hh in height or shorter
- E. A description of a horse with the same coat and skin color
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- G. Describes a reddish-brown coat with black points on the legs as well as a black mane and tail
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- K. Describes a face with a white spot that covers most of the face
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- M. White marking on the leg(s) that goes up to the knee
- N. Describes a coat that is reddish-orange with a matching mane and tail
- O. Describes a coat that is golden with a flaxen mane and tail
- P. Is a white stripe that is wide and runs down the front of the horse's face

Lesson One – Horse Breeds

LEARN: Horse Breeds

40 minutes

Purpose:

Participants will be introduced to the major horse breeds in the United States along with their traits.

Materials:

- *Horse Breeds* slide presentation
- *Horse Breeds* worksheet
- *Horse Breeds* – Answer Key

Facilitation Steps:

1. Set up the *Horse Breeds* slide presentation and distribute the *Horse Breeds* worksheet.
2. Explain how to fill out the worksheet and go through the slide presentation.
3. Once the slide presentation is completed, collect handout.

Slide 1: Introduction slide.

Slides 2-3: A Horse of a Different Color Means...

- Simply that horses can be different colors
- That a horse acts different
- That there are more differences than similarities
- That there are more differences than similarities
- This saying explains why there are so many different horse breeds
- While there are basic similarities that all horses share, there are more differences and reasons why one horse is valued over another
- The breeds covered in this lesson are popular in the United States for many reasons

Slide 4: Terminology and Breeds

- To understand characteristics of breeds, we need to know equine terminology

Slide 5: Horse Measurement

- Before the tape measure was invented, people would use their hand as a measuring tool
- This was done by laying their hand down on a surface and counting the number of hands it took to cover the space being measured
- This number would then be multiplied by four because the average hand is four inches wide, giving you the number of inches
- This could then be converted to feet if desired
- Example: 10 hands x 4 inches = 40 inches

Slide 6: Horse Versus Pony

- A horse can be defined as an equine that is taller than 14.3 hh (hands high)
- A pony is both biologically and anatomically different from a horse
- In general, a pony is 14.3 hh or shorter
- This is a general definition as some horse breeds do not follow this example

Slides 7-11: Colors

- Certain breeds are identified by colors that have set the breed standard
- A white horse has a white mane and tail with a completely white coat; the skin must be pink
- A chestnut horse has a reddish-orange coat; the mane and tail are normally the same color
- A bay-colored horse has a reddish-brown coat with black points on the legs; the mane and tail are also black
- Black horses must have a black coat, mane, and tail; the skin should also be black, but a very small facial marking of another color is allowed
- A gray horse has a mingling of black and white in their coat
 - Terms used when talking about a gray horse include, flashy

dappled gray and speckled flea-bitten gray

- A palomino-colored horse has a golden coat with a flaxen (white or cream) mane and tail
- “Pinto” is a term used as a horse breed as well as a color
- A pinto-colored horse is also called “painted,” meaning the horse’s coat is at least two colors
- Common pinto color combinations include:
 - Black and white
 - Brown and white
 - Palomino and white
 - Tri-color

Slides 12-13: Face Markings

- A horse with a blaze has a wide, white stripe that runs down the front of its face
- A stripe marking is a narrow blaze
- A bald-faced horse has a white area that covers most of the face
- A snip is a small, white spot on the horse’s face
- A star is a small, white, star-shaped spot on the forehead

Slide 14: Leg Markings

- A horse with a sock marking has white going up the leg to the knee
- The stocking leg has white that goes all the way up the leg

Slides 15-17: Quarter Horse

- Average height: 15 hh
- Strong body
- Finely chiseled head with flat profile and wide forehead
- Unique combination of speed and gentle nature
- Generally calm and gentle
- Very intelligent
- Has a wide gullet that allows more air to travel into and out of the lungs, making it easier for the horse to breathe during exertion
- 17 colors are allowed
- Limited white markings on the face and below the knees

Slides 18-24: POA (Pony of Americas)

- Leopard pattern (spots all over a white body)
- The horse is born this color and does not change
- The few spotted leopard pattern is a white horse with a few small spots on the head, ears, and lower legs
- Mottling and sclera must be present
- A snowflake pattern occurs when the horse has a solid coat color, but white spots are sprinkled throughout
 - There must be more than two spots that can be seen from 40 feet away
 - Mottling must present along with either sclera or striped hooves
- A frost pattern also needs to be seen from 40 feet away
 - It consists of a solid coat with white hairs mixed in at the back, loin, and croup
 - Mottling must be present with either sclera or striped hooves
- A blanket pattern coat is solid with white over the hips and loin, which has dark, round spots
- Like blanket, the snowcap pattern has white over the hips and loin but without spots
 - White spots can appear in other areas of the coat and can be specks or spots that are four inches in diameter
- A marbled or varnished roan pattern has a roan-colored coat with spots
 - The knees are a darker color
 - These darker areas are referred to as varnished marks
 - The edges of the marks must be smooth, blending into the coat
 - Mottling must be present along with sclera and/or striped hooves
- Solid with dark spots is another color option
 - Mottling must be present along with sclera and/or striped hooves
- Many require mottled skin (skin that is speckled with a darker color)

- This skin can be found around the anus, vulva, udder, or sheath
- It can also be found around the muzzle and nostrils but not the lips
- They also have sclera (white area around the dark circle of the eye)
- This should be easy to see
- If this is combined with a bald face, then it cannot be considered a POA
- They can also have striped hooves
- Height: 11.5 hh to 14 hh
- Good natured

Slides 25-26: Mustang

- Height: 14 to 15 hh
- Very hardy and surefooted, good for all terrains
- Make great work and trail horses
- They come in an array of colors with bay and chestnut being more common
- They can also be found in black, gray, roan, pinto, and palomino

Slides 27-29: Thoroughbred

- Height: 15 to 17 hh
- Known as a racehorse but also used in jumping and dressage competitions as well as for general riding horses
- Known for their athleticism, allowing them to run on average 40 miles per hour
- Long legs amplify thrust as they gallop
- When it comes to colors, any solid color is acceptable in this breed
- White facial and leg markings are allowed

Slides 30-33: Haflinger

- Height: 13 to 15 hh
- Small, flat, slightly dished head with widely spaced eyes and small ears
- Broad chest and rump with strong, well-tapered legs
- Large, hard hooves
- Usually a shade of chestnut that can range from very light blond to chocolate
- The coat can be solid or with some dappling
- Mane and tail are very thick and can sometimes be double; colors can range from white to flaxen

- Strong and sturdy horses that are great for farm work, packing, and driving
- Friendly to people and want to please
- Easy to care for
- A female filly's name will start with the first letter of her mother's name
- A male colt's name will start with the first letter of his father's name

Slides 34-38: Paint

- Height: 14 to 16 hh
- Very versatile breed that can be found in every equine sport
- Friendly, calm, intelligent, and strong
- In the past, this breed was used for transportation and work
- The breed's coat consists of white with another color, such as bay, black, palomino, or chestnut
- No two horses have identical markings
- The Paint breed has several color combinations
- Tobiano color occurs when the color goes over one or both flanks
 - They also have rounded white patches around their withers and tail
 - The tail and mane can be two different colors
 - The head is colored and can have markings
- Overo is a color where the horse's head is white and has white patches throughout the body with the fur on the back a solid color
 - The legs can be colored or have white stockings
- Tovero color is a horse that is mainly white with the head, chest, and flank areas colored
 - May also have blue eyes
- The color area of the hair may also be roan for any of the color variations
- This breed can have white details on the head, such as a blaze or star
- They can also have leg markings, such as stockings

Slides 39-42: Appaloosa

- The base hair color can be:

- Red roan
 - Blue roan
 - Bay roan
 - Gray
 - Palomino
 - Chestnut
 - Cremello/perlino
 - Grulla
 - Dun
 - Buckskin
 - Black
 - Brown
 - Dark Bay
 - Bay
- Facial markings include:
 - Blaze
 - Bald
 - Snip
 - Stripe
 - Star
- Leg markings include:
 - Eel
 - Pastern
 - Ankle
 - Half-pastern
 - Coronet
 - Stocking
 - Half-stockings
 - Lightening
- Skin is mottled
- Three common coat patterns:
 1. Blanket
 2. Leopard
 3. Marbled (white and colored hairs are not separated)
- Mane and tail are sparse
- Hooves have alternating vertical stripes of light and dark
- The sclera is visible
- Height: 14 to 15 hh
- Gentle, friendly, and loyal
- Common uses:
 - Pleasure and trail horses
 - Western and English riding sports
 - Working cattle
 - Rodeos
- They are often used in films due to their striking appearance

Slides 43-48: Welsh Ponies

- This breed is broken down into four categories
 1. Section A, commonly known as Welsh Mountain Ponies
 - The smallest of the Welsh Ponies at 12 hh or shorter
 - Delicate heads, long legs and a deep girth
 - Good riding horses for children and in harness
 2. Section B, known as Welsh Pony of Riding Type
 - This type should not exceed 13.2 hh in height
 - They are known for their sloping shoulders, which give them exceptional action
 3. Section C, known as Welsh Pony of Cob (a “cob” is a term that refers to a large pony)
 - Should not exceed 13.2 hh in height
 - Body is compact but with a broad girth
 - Legs are short and muscular
 - Can be used in the jumping ring and as a children’s field hunter
 4. Section D is for Welsh Cobs that are over 13.2 hh in height
 - Have the same features as any Welsh Pony except for their height
 - Can have feathering at the heel
 - Due to their height, both adults and children can ride these horses
 - Can also be used on the farm as work horses and in the show ring
- This breed can be any color, but it cannot be piebald or skewbald
- Piebald is irregular white areas on a black background
- Skewbald is irregular white patches on a colored background other than black

Slides 49-52: Tennessee Walking Horse

- Height: 15.2 to 17 hh
- Can be any color but the common colors are:
 - Bay
 - Black
 - Chestnut
 - White
 - Gray
 - Dun
 - Roan
 - Palomino
- Coat patterns include:
 - Sabino
 - Overo
 - Tobiano
 - Tovero
- Known for their running walk gait, which can reach 20 to 30 mph
- Easily learns other gaits
- Great for:
 - Trail rides
 - Endurance rides
 - Performing their gaits in show rings
 - Competing in English and Western saddle competitions
- This breed is often used in riding lessons for young children due to their gentle nature

Slides 53-55: Missouri Fox Trotter

- Height: 14 to 16 hh
- All horse colors and pinto patterns
- This breed holds itself tall with a graceful neck that supports a well-proportioned head
- Its body is short with a strong back
- Good as a cattle and ranch work horse, trail horse, and show horse due to the different gaits they can learn
- They are known for the Missouri Fox Trot, which is a four-beat gait
 - This gait is why they are valued as horses for riding long distances

Slides 56-59: Arabian

- Height: 14 to 16 hh
- Compact body with a small, wedge-shaped head that is held up by a long, arched neck
- Colors include:
 - Bay
 - Roan
 - Chestnut
 - Gray
 - Black
- Can have white facial markings
- Some bloodlines have certain markings, such as white faces and high, white socks
- Skin is normally black but can be sabino, which is a white pattern on the skin and coat
- Known to have “floating gaits” that make them comfortable to ride
- Used for:
 - Work
 - Pleasure
 - Long-distance trail competitions
 - Dressage

Slides 60-63: Morgan

- Height: 14.1 to 16.2 hh
- Deeply muscled bodies with straight, sturdy legs, but the horse is elegant
- Have a graceful, crested neck
- Small ears and expressive eyes
- Common colors are bay, black, and chestnut
- This breed can have a pinto color pattern but not tobiano
- Used as a draft horse and in harness racing
- Great for beginners and experienced riders, making them one of the go-to horses for riding lessons
- Compete in equine events that include:
 - Dressage
 - Reining
 - English
 - Western
- Oldest breed to originate in the United States

Slides 64-66: Andalusian

- Height: 15 to 15.1 hh
- Common colors are gray and bay
- Can have little horns near their ears and warts under their tail
- Docile, sensitive, and smart
- Easy to train but can be spirited and quick natured
- Used for:
 - Driving in films
 - Leisure riding
 - Equestrian competitions, such as dressage and show jumping

Slides 67-69: American Shetland Pony

- Height: 7 to 11 hh
- Common coat colors:
 - Black
 - Chestnut
 - Gray
 - Bay
 - Brown
 - Roan
 - Palomino
 - Buckskin
 - Dun
 - Cream
 - Champagne
- Compact body
- Broad head
- Thick neck and short legs
- Lush mane and tail
- Cannot be leopard spotted
- Can have a variety of face and leg markings
- Companions for children in horse shows
- Used in pleasure driving, such as wagons and pulling carts
- Make great pets
- Can pull more weight than a Clydesdale

Slides 70-72: American Cream Draft Horse

- Height: 15 to 16.3 hh
- Color is cream, which can be light to dark, with a white mane and tail
- Skin is pink and the eyes of a newborn appear white
 - As the horse ages, the eyes turn amber
- Calm nature

- Gentle, docile, and intelligent
- While this breed is short, they are still big in overall size with an average weight of 1,600 to 2,000 pounds
- Used as a draft horse but can also be seen in horse shows, riding, and pulling carriages
- The Colonial Williamsburg Living History Museum raised these horses at one time

Slides 73-75: Florida Cracker Horse

- Height: 13.2 to 15.2 hh
- Can be any color or pattern, but gray is the most common
- Have a natural herding instinct
- Name comes from the cracking sound the whip would make when their riders were herding cattle
 - These riders were known as “crackers”
- Due to the riders’ nickname, the horses they rode adopted the same name
- Their head is refined, and the eyes are spaced far apart
- Their eyes are dark brown, but the sclera can be white, gray, or blue
- The width of their chest is narrow to medium with an inverted “V” shape between the front legs

Slides 76-78: Standardbred

- Height: 14 to 17 hh
- Come in a full range of colors, but do not have any spots or markings on their face or legs
- Looks like a Thoroughbred
- Has a thick mane and tail, muscular legs, and a deep chest
- Can be broken into two groups:
 - Trotters have a diagonal gait
 - Pacers have a gait in which the legs move on the same side
- Found in endurance riding, competitive carriage, and pleasure driving
- Used in
 - Fox hunting
 - Trail riding
 - Jumping
 - Dressage

- Equine-assisted therapy

Slides 79-81: Colorado Ranger

- Height: 14.2 to 16 hh
- Same color/markings characteristics as Appaloosa (spotted coat, mottled skin, white sclera)
- Color is not a requirement
- To be this breed, one must prove lineage to the foundation stallions
- Compact build with short legs
- Long, muscular neck
- Used in endurance competitions and as working horses on the farm and ranch due to their stamina and “cow sense”

Slides 82-84: Percheron

- Height: 15 to 19 hh
- Can come in the colors black, gray, chestnut, bay, roan, or sorrel
- Usually no white markings
- Weigh between 1,800 and 2,600 pounds
- Have less leg feathering than other horses
- Found in the United States and France
- Livelier than other draft horses and eager to please
- Their high stamina gives them the ability to travel and pull longer distances
- Can easily go through 25-30 pounds of hay and 4-5 pounds of grain in a day

Slides 85-87: Mountain Pleasure Horse

- Height: 14.2 to 15.2 hh
- Normally appears in solid colors, including:
 - Black
 - Chocolate
 - Bay
 - Buckskin
 - Cremello
- Known for their natural four-beat gait
- Only used for riding and are disqualified from any type of equine competition
- While this horse can be found anywhere, you are more likely to see it in eastern Kentucky where it was developed
 - This is because of the mountainous areas in this part of the United States

Slides 88-92: Nez Perce Horse

- Height: 15 to 16 hh
- Four most common colors:
 - Bay
 - Buckskin
 - Dun
 - Palomino
- Has Appaloosa traits, such as mottled skin and a blanket and/or spots
- Longer and leaner with narrow shoulders
- Commonly called “lean runner”
- Used in endurance and jumping competitions
- Breeding was started in Lapwai, Idaho where the United States government wanted to spur horse breeding of the Nez Perce tribe
- This breeding program started in 1994 and combined the efforts of the Nez Perce tribe, United States Department of Health and Human Services, and The First Nations Development Institute
- Can only be a cross between old-line Appaloosa (the Wallowa herd) and Central-Asian horse (Akhal-Teke breed)
- This breed is strong, versatile, and easy to maintain
- Used for:
 - General riding
 - Work activities
 - Dressage
 - Endurance riding
 - Jumping
 - Hunting

Slides 93-95: American Saddlebred

- Height: 15 to 16 hh
- Can be any color
- Common colors:
 - Bay
 - Chestnut
 - Black
 - Gray
- Rarer colors include palomino and pinto
- High-set tail that is very flowing
- Very dense muscles
- Highly versatile
- Used for pleasure riding to saddle seat and hunt seat competitions

- Excellent harness horses
- Can be either three-gaited or five-gaited

Slides 96-98: Curly Horse

- Height: 14 to 17 hh
- Strong, compact build with a short back because they have one less vertebra than other breeds
- Hooves are normally black
- The curl comes from a dominant gene, meaning there can be Curly horses with straight coats
- Coat is hypoallergenic
- Smart, steady, and brave
- Doesn't panic or run away when challenged
- Great for:
 - Beginners
 - Dressage
 - Jumping
 - Driving
 - Equine therapy
 - Ranch work

Slides 99-101: Rocky Mountain Horse

- Height: 14.2 to 16 hh
- Body is a solid color
- Face can have markings if they're not excessive
- Leg markings are not allowed
- Mane and tail are often flaxen
- Good natured and easy to manage
- Must have an ambling, four-beat gait displayed from birth that allows them to travel 7 to 20 mph
- Used for competitive trail or endurance riding, working with cattle, and a kid's first horse

Slides 102-104: Racking Horse

- Height: 15.2 to 16 hh
- Can be any color
- Well-muscled, naturally raised tail, and finely textured hair
- Gentle, intelligent, and laid-back
- Use a four-beat canter, allowing them a speed of 8 to 30 mph
- Able to do racking, single-foot gait where only one foot comes off the ground at a time

- Used for pleasure riding, racing, and horse shows

Slides 105-107: Spotted Saddle Horse

- Height: 14.3 to 16 hh
- Can be found in any base color with pinto markings
- Overo and tobiano coat patterns are also very common
- Has a short back and muscular chest
- Does ambling gaits as well as four-beat walks
- A solid-colored horse can be born with no markings
 - If this happens from breeding two registered parents, then the offspring can be labeled a spotted saddle horse
- Great temperament
- Compete in pleasure and driving classes
- Used as trail horses

Slides 108-111: Carolina Marsh Tacky

- Height: 13 to 15 hh
- Multicolored patterns, such as pinto, are possible
- Other colors:
 - Grullo
 - Bay
 - Chestnut
 - Black
 - Dun
 - Roan
- Short and powerful back
- Legs have long muscles that become thinner at one end
- Lower legs lack feathering
- Friendly and outgoing personality
- Calm and gentle with a sweet disposition
- Known for their four-beat ambling gait
- Can survive on little food
- Can work in marshlands
- Helps with:
 - Herding cattle
 - Hunting wild game
 - Endurance riding
 - Works well with children

Slides 112-114: Quarab

- Height: 14 to 16 hh
- All colors are possible
- Can be spotted or solid in color with buckskin being the most common
- Head is noble-looking with large eyes, a broad chest, and medium length
- Easygoing and docile personality
- Willing to work, loving, and loyal
- Great for:
 - General riding
 - Dressage
 - Jumping
 - Endurance
 - Working with cattle

Slides 115-117: National Show Horse

- Height: 14.3 to 16.2 hh
- Found in a full range of colors, including pinto, but the traditional colors are:
 - Black
 - Gray
 - Bay
 - Chestnut
 - Palomino
- Neck is high and swan-like
- Tail is set high
- Head and ears are small
- Ears can be straight or concave
- Friendly and obedient personality
- Intelligent, loyal, and easygoing
- Versatile breed
- Can be seen in different types of competition, including:
 - Dressage
 - Saddle seat
 - Hunter harness
 - Halter
 - Side saddle

Slides 118-121: American Walking Pony

- Height: 13.2 to 14.2 hh
- All colors are available, but if the horse is Appaloosa-colored, then it cannot be registered
- Small chiseled head with bold eyes that are set well apart
- Ears are pointed and well-shaped
- Neck is long, arched, and well-muscled

- The gaits they can do consist of:
 - Walk
 - Pleasure walk
 - Merry walk
 - Trot
 - Canter
- Used for:
 - Pleasure
 - Harness
 - Jumping
 - Trail

Slides 122-124: Welara

- Height: 11 to 15 hh
- All colors are accepted, but a spotted pattern is not allowed
- Small and concave head, arched neck, and short back
- Intelligent, friendly, and versatile
- Used for:
 - General riding
 - Pleasure riding
 - Show jumping
 - Three-day events

Slides 125-128: Nokota Horse

- Traditional height: 14 to 15 hh
- Ranch type height: 16+ hh
- They can have blue eyes and a bald face
- Can be any color, but the predominant colors are:
 - Gray
 - Black
 - Roan
 - Overos
- They produce the highest number of blue roan
- Blue roan is a rare color type that was valued by Sitting Bull and his tribe, the Hunkpapa people
- Has a square-set, angular frame
- Has a distinctly V-shaped front end and low-set tail
- An all-purpose type of horse that does well in different types of competitions and excels at jumping
- Does well in any type of terrain
- Very quickly builds relationships with humans
- Intelligent and speedy learners

Slides 129-131: Camarillo White

- Height: 14.2 to 17 hh
- Must be born with white hair and pink skin
- Beyond color, they're known for their:
 - Strong limbs
 - Expressive face
 - Large eyes
 - Well-arched neck
- Good for beginners
- Typically found in California
- Participated numerous times in the Rose Parade
- Since 1924, this breed has been in the Santa Barbara Fiesta Parade
- Is the official horse of the city of Camarillo

Slides 132-134: Virginia Highlander

- Height: 13 to 14 hh
- Colors include:
 - Black
 - Roan
 - Gray
 - Chestnut
 - White is possible but rare
- Well-proportioned, short head with expressive, wide-set eyes
- Large nostrils and short back
- Friendly and calm personality
- Gait is single-footed and four-beat amble
- Used as a riding horse
- Mostly found in the eastern and southeastern United States

Slides 135-137: Blazer Horse

- Height: 15 hh or shorter
- Colors:
 - Dun
 - Buckskin
 - Palomino
 - Black
 - Bay
 - Chestnut
- Short back and refined head
- Bold eyes and sloped shoulders
- Intelligent, willing to please, and versatile
- Uses:
 - Ranch work

- Show horse
- Pleasure riding
- Endurance sports

Slides 138-141: Morab Horse:

- Height: 14.1 to 15.2 hh
- Variety of coat colors with dark skin
- While rare, there can be white markings on the lower legs and face
- Flared nostrils and broad cheeks
- A narrow muzzle and expressive, large eyes with a wide, deep chest
- As the name implies, this breed is a combination of Morgan, Arab, and Quarter horses
- Steady disposition and strong
- Have a natural, free gait, but registered Morab learn to be three-gaited
- Used for:
 - Pleasure horses
 - Trail riding
 - Driving
 - Jumping
 - Showing

Slides 142-145: Clydesdale

- Height: 16.2 to 18 hh
- Common colors:
 - Bay
 - Brown
 - Black
 - Chestnut
 - Roan
- Preferred markings are white socks up to the knees and hocks as well as a well-defined blaze or bald face
- Light roan coat with dark legs are also acceptable
- Very large hooves
- In the past, farmers could not use these horses in the field because their hooves didn't fit in the field furrows
- They were used in towns to pull wagons
- Roman nose or dished profile
- Large ears, wide muzzles and nostrils, and a well-arched, long neck
- Known as the "Budweiser horse"
- High-stepping, intelligent, and strong
- Used as a draft and show horse

Slides 146-148: Canadian Horse

- Height: 14 to 16 hh
- Colors:
 - Dark brown
 - Bay
 - Chestnut
 - Black
- Calm and docile but energetic
- Head is wedge-shaped with small ears
- A square nose, wide-set eyes, and a short back
- Very versatile as a trail horse and, with training, can be found in the show ring
- Used in Western saddle and English hack

Slides 149-151: Chincoteague Pony

- Height: 14.2 hh and shorter
- Color is mostly paint (piebald and skewbald) and pinto, which includes overo and tobiano
- May also be solid black and solid sorrel or chestnut with a flaxen mane and tail
- Strong, muscular tail that sits low on their rump
- Normally have one or two cowlicks on their forehead
- Uses:
 - Endurance races
 - Hunter/jumper
 - Trail riding
 - Western pleasure
 - Driving
- Produces a very thick winter coat so no blanket is required

Slides 152-154: Kiger Horse

- Height: 13.2 to 15.2 hh
- Colors:
 - Dun (most common)
 - Gray
 - Grullo
 - Black
- Compact and well-muscled with a short back and deep chest
- Highly intelligent and calm with a good temper
- Uses:
 - Work horse
 - Dressage

- Endurance
- General riding

Slides 155-159: Friesian Horse

- Height: 15.3 to 17 hh
- Known for their solid black coats, but recently chestnut and bay colors have appeared
- The only white allowed is a small start on the forehead
- Powerful body with small head and ears
- Long, arched neck
- There are two types:
 - The baroque type is the traditional form, which is thick-boned and heavier
 - The sports type has thinner bones and is used in horse shows
- Beyond the traditional black color, this breed is known for its long mane and tail along with feathers, which are long, silky hairs that start at the middle of the leg and drape over the ankle
- In the past, this breed was used as a war horse because they do not spook easily
- Eager to please and learn
- Used in dressage
- Higher rate of genetic disorders with one being dwarfism

Slides 160-163: Belgian Horse

- Height: 16.2 to 17 hh
- Colors are sorrel or roan
- Most prized coloration:
 - Chestnut or sorrel
 - White mane and tail
 - White stripe on the face
 - Four white socks
- Body is compact with a short, wide back and powerful loins
- Have “double muscling” over the croup with medium hooves for a draft horse and limited “feathering”
- Easy to handle and kind in mood
- Used for any type of draft work, such as plowing, logging, and pulling carriages and sleighs
- In recent years, they have appeared in different equine competitions, such as Western riding and jumping

Name: _____

Class: _____

Breeds of Horses

Directions: As you watch the slide presentation, fill in the information for each horse breed.

1. A _____ a _____ means...
 - That there are more differences than similarities
 - This saying _____ there are so _____

 - While there are _____ that all horses share, there are _____ and _____ one horse is _____
 - The _____ in this lesson are _____
_____ the _____ for _____

2. _____
 - Before the tape measure was invented, people would use their _____ a

 - This was done by _____ on a
_____ and _____ the _____
_____ it took to _____ the _____ being

 - This _____ would then be _____
_____ the _____ hand is _____
_____, giving you the _____

 - This could then be converted to feet if desired
 - Example: _____ hands x _____ inches= _____

3. Horse Versus Pony
 - A _____ can be defined as an _____ that is _____
_____ (hands high)
 - A _____ is both _____
_____ different from a horse

- In _____, a _____ is _____

- This is a _____ as _____
_____ this

4. Colors

- _____ are _____
_____ that have set the _____
- A _____ has a _____ and
_____ with a completely _____ coat; the _____ must be

- A _____ has a _____ -
_____; the _____ and _____ are _____
the _____
- A _____ - _____ has a _____ -
_____ with _____
_____ the _____; the _____ and _____ are also

- _____ must have a black _____, _____,
_____; the skin _____ be black, but a very
_____ marking of _____ is

- A _____ has a _____ of _____
_____ in their _____
○ _____ used when talking about a _____ include
_____ and
_____ -

- A _____ - _____ has a
_____ with a _____ (white or cream)
_____ and _____
- " _____ " is a term used as a _____ as _____ as a

- A _____ - _____ is also _____
" _____," meaning the _____ is _____

- Common _____ include:
 - _____ and _____
 - _____ and _____
 - _____ and _____
 - _____ - _____

5. Face Markings

- A horse with a _____ has a _____, _____ that _____ the _____ of its _____
- A _____ marking is a _____
- A _____ - _____ horse has a _____ that _____ of the _____
- A _____ is a _____, _____ the _____ face
- A _____ is a _____, _____-shaped spot on the _____

6. Leg Markings

- A horse with a _____ has _____ the _____ the _____
- The _____ has _____ that _____ the _____

7. _____

- Average height: 15 hh
- _____ body
- _____ with _____ and _____
- Unique combination of _____ and _____
- Generally _____ and _____
- _____
- Has a _____ that allows more air to travel into and out of the lungs, making it _____ for the horse to _____
- _____ are _____
- _____ on the _____ and _____ the _____

8. _____ (Pony of Americas)

- _____ (spots all over a _____)
- The _____ is _____ change
- The _____ is a _____ with a _____ the _____, _____, and _____
- Mottling and _____ be _____
- A _____ occurs when the horse has a _____, but _____ are _____
 - There must be _____ that can be _____ from 40 feet _____
 - _____ must be present _____ hooves
- A _____ also needs to be _____ from _____
 - It consists of a _____ in at the _____, _____
 - _____ be _____ with _____ sclera _____
- A _____ coat is _____ white _____ the _____, which has _____
- _____, the _____ has _____ the _____ and _____ but _____
 - _____ can _____ in _____ of the coat and can be _____ that are _____
- A _____ has a roan-colored coat with spots
 - The _____ are a _____ color
 - These _____ are referred to as _____

- The _____ of the _____ be _____
- _____ into the _____
- _____ be _____
- _____ with _____ / _____
- _____ (_____ that is _____ a _____ color)
- This _____ can be _____ the _____, _____, _____, or _____
- It can also be _____ the _____ and _____ but not the _____
- They also _____ (_____ the _____ of the _____)
- This should be easy to see
- If this is _____ a _____, then it _____ be _____ a _____
- They _____ also _____
- Height: 11.5 to _____
- _____

9. _____

- Height: 14 to 15 hh
- _____ and surefooted, _____ for _____
- Make _____ and _____
- They come in an _____ with _____ being more _____
- They can also be found in _____, gray, _____, pinto, and _____

10. _____

- _____:
- Known as a _____ but also _____ in _____ and _____ as well as for _____
- _____ their _____, allowing them to _____ on average _____
- _____ amplify thrust as they gallop
- When it comes to _____, _____ is acceptable in this breed
- White facial and leg markings are allowed

11. Haflinger

- _____ :
- _____, _____, _____
with _____ and _____
- _____ and _____ with _____ -

- _____, _____
- Usually a _____ that can range from _____

- The _____ can be _____ with _____

- _____ and _____ are _____ and can
_____ be _____; _____ can
_____ from _____
- _____ and _____ that are great for
_____, _____, and _____
- _____ to _____ and want to _____
- _____ to _____
- A _____ name will start with the _____ letter of
her mother's _____
- A _____ will _____ the
_____ of his _____

12. Paint

- _____ :
- _____ that can be found in

- _____, calm, _____, and strong
- In the past, this _____ was _____

- This _____ consists of _____
_____, such as _____, black,
_____, or chestnut
- _____ have _____ markings
- The _____ has _____

- _____ occurs when the _____
_____ or _____

- They _____ have _____
_____ around their _____ and _____
- The _____ and _____ can be _____

- The _____ is _____ and _____

- _____ is a color where the _____ is
_____ and has _____
_____ the _____ with the _____
the _____ a _____
- The _____ be _____ or _____

- _____ color is a horse that is _____ with the
_____, _____, and _____
- _____ have _____
- The _____ of the _____ also _____
_____ for _____ of the _____

- This _____ have _____ on the
_____, _____ as a _____ or _____
- They can also have leg _____, such as _____

13. Appaloosa

- The _____ hair _____ can be:
 - Red roan
 - _____
 - Bay roan
 - _____
 - Palomino
 - _____
 - Cremello/perlino
 - _____
 - Dun
 - _____
 - Black
 - _____
 - Dark bay
 - _____
- _____ include:
 - Blaze
 - _____

- Snip
- _____
- Star
- _____ include:
 - _____
 - Pastern
 - _____
 - Half-pastern
 - _____
 - Stocking
 - _____
 - Lightening
- _____ is _____
- _____ common _____:
 - 1) _____
 - 2) _____
 - 3) _____ (_____ and colored _____ are not _____)
- _____ and _____ are _____
- _____ have _____ of _____ and _____
- The _____ is _____
- _____: _____
- _____, friendly, and _____
- _____ uses:
 - Pleasure and _____
 - _____ and _____
 - _____
 - _____
 - _____
- They are often used _____ due to their _____

14. Welsh Ponies

- This breed is _____ into _____
 - 1) _____, commonly known as _____
 - The _____ of the Welsh Ponies at _____ or _____
 - _____, long legs, and a _____

- Good _____ horses _____
_____ and _____
- 2) _____, known as _____

 - This type should _____ in height
 - They are _____ for their _____, which give them exceptional action
- 3) _____, known as _____
_____ (a “cob” is a _____ that _____ to a _____ pony)
 - Should not exceed 13.2 hh in height
 - _____ is _____ but with a _____
 - _____ are _____ and _____
 - Can be _____ in the _____ and as a _____
- 4) _____ is for _____ that are _____ in height
 - Have the _____ as _____ except for _____
 - Can have _____ the _____
 - Due to the height, both _____ and _____ can _____ these horses
 - They can also be used on the farm as _____ and in the _____
- This _____ can be _____, but it _____ be _____ or _____
- _____ is _____ a _____
- _____ is _____ a _____ than _____

15. _____
- _____:
 - Can be _____ but the _____ are:
 - _____
 - Black
 - _____

- White
 - _____
 - Dun
 - _____
 - Palomino
- _____ include:
 - _____
 - _____
 - _____
 - _____
- Known for their running _____ gait, _____ can _____ mph
- _____ other gaits
- Great for:
 - _____
 - Endurance rides
 - Performing their gaits in show rings
 - Competing in English and Western saddle competitions
- This breed is often used in riding lessons for young children due to their gentle nature

16. Missouri Fox Trotter

- _____:
- _____ horse _____ and _____
- This breed _____ with a _____ that supports a _____ - _____
- Its _____ is _____ with a _____
- Good as a _____ and _____ horse, trail horse, and _____ due to the _____ they can learn
- They are known for the _____ Trot, which is a _____-beat gait
 - This gait is why they are valued as _____ for _____ long distances

17. Arabian

- _____:
- _____ with a _____, _____ - _____ that is held up by a _____
- _____ include:
 - Bay

- _____
- Chestnut
- _____
- Black
- _____ have _____
- _____ have _____, such as _____ and _____
- _____ is _____ but _____ be _____, which is a _____ on the _____ and _____
- Known to _____ “_____” that make them _____ to _____
- Used for:
 - _____
 - _____
 - _____-distance _____
 - _____

18. Morgan

- _____:
- _____ with straight, sturdy legs, but the horse is _____
- Have a _____, _____
- _____ and _____
- _____ are bay, _____, and _____
- This breed can have a pinto _____ but not _____
- _____ as a _____ horse and in _____ racing
- Great for _____ and _____, _____ them one of the go-to horses for _____
- Compete in _____ that include:
 - _____
 - _____
 - _____
 - _____
- _____ to originate in the _____

19. Andalusian

- _____: _____
- Common _____ are _____ and _____
- Can have _____ their _____ and _____ their _____
- _____, sensitive, and _____
- _____ to _____ but can be _____ and _____
- Used for:
 - _____
 - _____
 - _____, such as _____ and _____

20. _____

- _____: _____
- _____ colors:
 - Black
 - _____
 - _____
 - _____
 - _____
 - _____
 - _____
 - Buckskin
 - Dun
 - _____
 - _____
- _____ body
- _____
- Thick _____ and _____
- Lush mane and tail
- Cannot be leopard spotted
- Can have a variety of face and leg markings
- Companions for children in horse shows
- Used in _____, such as _____ and _____
- Make great pets
- Can _____ than a _____

21. American Cream Draft Horse

- _____: _____
- _____ is _____, which can be _____
_____, with a _____ and _____
- _____ is _____ and the _____ a

○ As the _____, the _____
- Calm nature
- _____, docile, and _____
- While this _____ is _____, they are still _____ in
_____ with an _____
_____ of _____ to _____
- Used as a _____ but can also be seen in _____
_____, _____, and _____
- The _____ Living
History Museum _____ these _____ at one time

22. Florida Cracker Horse

- _____: _____
- Can be _____ or _____, but _____ is the

- Have a _____
- _____ comes from the _____ the
_____ would make when their _____ were

○ These _____ were _____ as
" _____ "
- Due to the _____, the horses they rode
_____ the _____
- Their _____ is _____, and the _____ are

- Their _____ are _____, but the _____
can be _____, _____, or _____
- The _____ of their _____ is _____
_____ with an _____ " _____ "
_____ the _____

23. Standardbred

- _____:
- Come in a _____ of _____, but _____ have any _____ or _____ on their _____ or _____
- _____ a _____
- Has a _____ and _____, _____, and a _____
- Can be _____ into _____:
 - _____ a _____
 - _____ have a _____ in which the _____ the same _____
- Found in _____, _____, and _____
- Used in:
 - _____
 - _____
 - _____
 - _____
 - _____

24. Colorado Ranger

- _____:
- _____/_____ as _____ (spotted coat, mottled skin, white sclera)
- _____ is _____ a _____
- To be this breed, _____ the _____ to the _____
- _____ with _____
- _____ neck
- Used in _____ and as working horses on the _____ ranch due to their _____ and " _____ "

25. Percheron

- _____:
- Can come in the colors _____, gray, _____, bay, _____, or sorrel
- Usually _____ white markings
- Weigh between _____ and _____ pounds
- Have _____ leg feathering than other horses
- Found in the _____ and _____
- Livelier than other _____ horses and _____ to please
- Their _____ stamina gives them the ability to _____ and _____ longer _____
- Can easily go through _____ pounds of _____ and _____ pounds of _____ in a _____

26. Mountain Pleasure Horse

- _____:
- Normally appears in _____, including:
 - _____
 - Chocolate
 - _____
 - Buckskin
 - _____
- Known for their _____ - _____
- _____ for _____ and are _____ from _____ of _____
- While this horse can be found anywhere, you are more likely to _____ it in _____ where it was developed
 - This is because of the _____ this _____ of the _____

27. Nez Perce Horse

- _____:
- Four most _____:
 - _____
 - Buckskin
 - _____
 - Palomino
- Has _____, such as _____ and a _____/_____

- _____ and _____ with _____
- Commonly _____ “ _____ ”
- Used in _____ and _____
- Breeding was _____ in _____, _____ where the _____ wanted to _____ of the _____
- This _____ in _____ and _____ the efforts of the _____, _____, and _____
- Can _____ a _____ - _____ (the Wallowa herd) and _____ (Akhal-Teke breed)
- This breed is _____, versatile, and _____
- Used for:
 - _____
 - _____
 - _____
 - _____
 - _____
 - _____

28. American Saddlebred

- _____:
- Can be _____
- _____ colors:
 - Bay
 - _____
 - Black
 - _____
- _____ colors include _____ and _____
- _____ - _____ that is _____
- _____

- _____
- Used for _____ to _____
_____ and _____ competitions
- Excellent _____
- Can be _____ - _____ - _____

29. Curly Horse

- _____:
- _____, _____ with a
_____ because they _____ breeds
- _____ are _____
- The _____ comes from a _____, meaning there
_____ with _____
- _____ is _____
- _____, steady, and _____
- Doesn't panic or run away when _____
- Great for:
 - _____
 - _____
 - _____
 - _____
 - _____
 - _____

30. Rocky Mountain Horse

- _____:
- _____ is a _____
- _____ can have _____ if they're _____
- _____ are _____
- _____ and _____ are often _____
- _____ and easy to manage
- Must have an _____ - _____
_____ that allows them to travel _____
- Used for _____ or _____
_____, _____ with _____, and a _____

31. Racking Horse

- _____:
- Can be _____
- _____, _____, _____, and _____
- Gentle, _____, and _____
- Use a _____, allowing them a speed of _____
- Able to do _____ where _____ the _____ a _____
- _____ for _____, _____, and _____

32. Spotted Saddle Horse

- _____:
- Can be found in any _____ with _____
- _____ and _____ patterns are also _____
- Has a _____ and _____ chest
- Does ambling _____ as well as _____-beat _____
- A solid-colored horse can be _____ with no _____
 - If this _____ from _____ two _____, then the _____ can be labeled a spotted saddle horse
- _____
- Compete in _____ and _____
- Used as trail horses

33. Carolina Marsh Tacky

- _____:
- _____, such as _____, are _____
- Other colors:
 - _____
 - Bay
 - _____
 - Black
 - _____

- Roan
- _____ and _____
- _____ have _____ that _____
_____ at _____
- _____
- Friendly and _____ personality
- Calm and gentle with a _____
- Known for their _____ - _____, _____
- Can _____ on _____
- Can _____ in _____
- _____ with:
 - _____
 - _____
 - Endurance riding
 - _____ well _____

34. Quarab Horse

- _____: _____
- _____ are _____
- Can be _____ or _____ in _____ with
_____ being the _____
- _____ is _____ - _____ with _____
_____, a _____, and _____
- Easygoing and _____ personality
- _____, loving, and _____
- Great for:
 - _____
 - _____
 - _____
 - _____
 - _____ with _____

35. National Show Horse

- _____: _____
- Found in a _____ of _____, including
_____, but the _____ are:
 - _____
 - Gray
 - _____
 - Chestnut

- _____
- _____ is _____ and _____ - _____
- _____ is _____
- _____ and _____ are _____
- _____ can be _____
- _____ and obedient personality
- _____, loyal, and _____
- _____ breed
- Can be seen in _____ of _____, including:
 - _____
 - _____
 - _____
 - _____
 - _____

36. American Walking Pony

- _____:
- _____ are available, _____ if the horse is _____ - _____, then it _____
- _____, _____ with _____ that are _____
- _____ are _____ and _____ - _____
- _____ is _____, _____, and _____ - _____
- The _____ they can do consists of:
 - _____
 - _____
 - _____
 - _____
 - _____
- Used for:
 - _____
 - _____
 - _____
 - _____

37. Welara

- _____: _____
- _____ are _____, but a _____ is _____
- _____ and _____, _____, and _____
- _____, friendly, and _____
- Used for:
 - _____
 - _____
 - _____
 - _____

38. Nokota Horse

- _____ height: 14 to _____
- _____ type _____: _____
- They can have blue eyes and a _____
- Can be _____, but the _____ colors are:
 - Gray
 - _____
 - Roan
 - _____
- They _____ the highest _____ of _____
- _____ is a _____ that was _____ by _____ and his tribe, the _____
- Has a _____ - _____, _____
- Has a _____ - _____ and _____ - _____
- An _____ - _____ type of horse that does well in _____ of _____ and _____ in _____
- _____ in _____ of _____
- Very quickly _____ with _____
- Intelligent and _____

39. Camarillo White

- _____:
- _____ be _____ with _____ and _____
- Beyond color, they're _____ their:
 - _____
 - _____
 - _____
 - Well- _____
- Good _____
- Typically found _____
- _____ numerous times _____ the _____
- _____, this _____ has been _____ the _____
- Is the _____ of the _____

40. Virginia Highlander

- _____:
- _____ include:
 - _____
 - Roan
 - _____
 - Chestnut
 - _____ is possible but _____
- _____ - _____, _____ with _____ -set eyes
- _____ and _____
- _____ and calm personality
- _____ is _____ - _____ and _____ - _____
- _____ as a _____
- Mostly _____ in the _____ and _____

41. Blazer Horse

- _____: 15 _____ or _____
- _____:
 - _____
 - Buckskin

- _____
- Black
- _____
- Chestnut
- _____ and _____
- _____ and _____
- Intelligent, _____, and _____
- Uses:
 - _____
 - _____
 - _____
 - _____

42. Morab Horse

- _____:
- _____ of _____ with _____
- While _____, there can be _____ on the _____ and _____
- _____ and _____
- A _____ and expressive, _____ with a wide, _____
- As the _____, this breed is a _____ of _____, _____, and _____
- _____ and strong
- Have a _____, _____, but _____ Morab _____ to be _____
- Used for:
 - _____
 - _____
 - _____
 - _____
 - _____

43. Clydesdale

- _____: _____ 18 _____
- Common _____:
 - Bay
 - _____
 - Black
 - _____
 - Roan
- _____ are _____
_____ the _____ and _____ as well as a
_____ - _____ or _____
- _____ with _____ are also
_____ now
- _____
- In the past, farmers _____ these horses _____ the
_____ because their _____ in the

- They were _____ to _____
- _____ or _____
- _____, _____ and
_____, and a well-_____, _____
- _____ the "_____"
- _____, intelligent, and _____
- _____ as a _____ and _____

44. Canadian Horse

- _____:
- _____:
 - _____
 - Bay
 - _____
 - Black
- _____ and docile _____
- _____ is _____ - _____ with _____

- A _____, _____, and a

- _____ as a _____ and,
with training, can be found in the _____
- Used in _____ and _____

45. Chincoteague Pony

- _____: 14.2 _____ shorter
- Color is _____ (_____ and _____) and _____, which includes _____ and _____
- May also be _____ and _____
_____ or _____ with a _____
_____ and _____
- _____, muscular _____ that _____ on their rump
- _____ or _____
_____ on their _____
- Uses:
 - _____
 - _____
 - _____
 - _____
 - _____
- _____ a _____
_____ so _____ is _____

46. Kiger Horse

- _____:
- _____:
 - _____ (most common)
 - Gray
 - _____
 - Black
- _____ and _____ - _____ with a _____
_____ and _____
- _____ and calm with a _____

- Uses:
 - _____
 - _____
 - _____
 - _____

47. _____
- _____:
 - Known for their _____, but recently _____ and _____ have appeared
 - The _____ is a _____ the _____
 - _____ with _____ and _____
 - _____,
 - There are _____:
 - The _____ type is the _____, which is thick-_____ and _____
 - The _____ type has _____ and is _____ in _____ shows
 - Beyond the _____, this breed is known for its _____ and _____ along with _____, which are _____, _____ that _____ at the _____ of the _____ and _____ the _____
 - In the _____, this breed was used as a _____ because they _____
 - _____ and _____
 - Used in _____
 - _____ of _____ with one _____

48. Fresian Horse

- _____:
- _____ are _____ or _____
- Most _____:
 - _____ or sorrel
 - _____ and _____
 - _____ the _____
 - _____
- Body is _____ with a _____, _____ and _____
- Have "_____ " _____ the _____ with _____ for a _____ and _____ " _____"
- _____ and kind in mood

Horse Kit Curriculum

- _____ for _____ of _____, such as _____, logging, and _____ and sleighs
- In _____, they have _____ in different _____, such as _____ and _____

Breeds of Horses – Answer Key

Directions: As you watch the slide presentation, fill in the information for each horse breed.

1. A horse of a different color means...

- That there are more differences than similarities
- This saying explains why there are so many different horse breeds
- While there are basic similarities that all horses share, there are more differences and reasons why one horse is valued over another
- The breeds covered in this lesson are popular in the United States for many reasons

2. Horse Measurement

- Before the tape measure was invented, people would use their hand as a measuring tool
- This was done by laying their hand down on a surface and counting the number of hands it took to cover the space being measured
- This number would then be multiplied by four because the average hand is four inches wide, giving you the number of inches
- This could then be converted to feet if desired
- Example: 10 hands x 4 inches= 40 inches

3. Horse Versus Pony

- A horse can be defined as an equine that is taller than 14.3 hh (hands high)
- A pony is both biologically and anatomically different from a horse
- In general, a pony is 14.3 hh or shorter
- This is a general definition as some horse breeds do not follow this example

4. Colors

- Certain breeds are identified by colors that have set the breed standard
- A white horse has a white mane and tail with a completely white coat; the skin must be pink
- A chestnut horse has a reddish-orange coat; the mane and tail are normally the same color
- A bay-colored horse has a reddish-brown coat with black points on the legs; the mane and tail are also black
- Black horses must have a black coat, mane, and tail; the skin should also be black, but a very small facial marking of another color is allowed

- A gray horse has a mingling of black and white in their coat
 - Terms used when talking about a gray horse include flashy dappled gray and speckled flea-bitten gray
- A palomino-colored horse has a golden coat with a flaxen (white or cream) mane and tail
- “Pinto” is a term used as a horse breed as well as a color
- A pinto-colored horse is also called “painted,” meaning the horse’s coat is at least two colors
- Common pinto color combinations include:
 - Black and white
 - Brown and white
 - Palomino and white
 - Tri-color

5. Face Markings

- A horse with a blaze has a wide, white stripe that runs down the front of its face
- A stripe marking is a narrow blaze
- A bald-faced horse has a white area that covers most of the face
- A snip is a small, white spot on the horse’s face
- A star is a small, white, star-shaped spot on the forehead

6. Leg Markings

- A horse with a sock marking has white going up the leg to the knee
- The stocking leg has white that goes all the way up the leg

7. Quarter Horse

- Average height: 15 hh
- Strong body
- Finely chiseled head with flat profile and wide forehead
- Unique combination of speed and gentle nature
- Generally calm and gentle
- Very intelligent
- Has a wide gullet that allows more air to travel into and out of the lungs, making it easier for the horse to breathe during exertion
- 17 colors are allowed
- Limited white markings on the face and below the knees

8. POA (Pony of Americas)

- Leopard pattern (spots all over a white body)
- The horse is born this color and does not change
- The few spotted leopard pattern is a white horse with a few small spots on the head, ears, and lower tail
- Mottling and sclera must be present
- A snowflake pattern occurs when the horse has a solid coat color, but white spots are sprinkled throughout
 - There must be more than two spots that can be seen from 40 feet away
 - Mottling must be present along with either sclera or striped hooves
- A frost pattern also needs to be seen from 40 feet away
 - It consists of a solid coat with white hairs mixed in at the back, loin, and croup
 - Mottling must be present with either sclera or striped hooves
- A blanket pattern coat is solid with white over the hips and loin, which has dark, round spots
- Like blanket, the snowcap pattern has white over the hips and loin but without spots
 - White spots can appear in other areas of the coat and can be specks to spots that are four inches in diameter
- A marbled or varnished roan pattern has a roan-colored coat with spots
 - The knees are a darker color
 - These darker areas are referred to as varnished marks
 - The edges of the marks must be smooth, blending into the coat
 - Mottling must be present along with sclera and/or striped hooves
- Many required mottled skin (skin that is speckled with a darker color)
- This skin can be found around the anus, vulva, udder, or sheath
- It can also be found around the muzzle and nostrils but not the lips
- They also have sclera (white area around the dark circle of the eye)
- This should be easy to see
- If this is combined with a bald face, then it cannot be considered a POA
- They can also have striped hooves
- Height: 11.5 to 14 hh
- Good natured

9. Mustang

- Height: 14 to 15 hh
- Very hardy and surefooted, good for all terrains
- Make great work and trail horses
- They come in an array of colors with bay and chestnut being more common
- They can also be found in black, gray, roan, pinto, and palomino

10. Thoroughbred

- Height: 15 to 17 hh
- Known as a racehorse but also used in jumping and dressage competitions as well as for general riding horses
- Known for their athleticism, allowing them to run on average 40 miles per hour
- Long legs amplify thrust as they gallop
- When it comes to colors, any solid color is acceptable in this breed
- White facial and leg markings are allowed

11. Haflinger

- Height: 13 to 15 hh
- Small, flat, slightly dished head with widely spaced eyes and small ears
- Broad chest and rump with strong, well-tapered legs
- Large, hard hooves
- Usually a shade of chestnut that can range from very light blond to chocolate
- The coat can be solid or with some dappling
- Mane and tail are very thick and can sometimes be double; colors can range from white to flaxen
- Strong and sturdy horses that are great for farm work, packing, and driving
- Friendly to people and want to please
- Easy to care for
- A female filly's name will start with the first letter of her mother's name
- A male colt's name will start with the first letter of his father's name

12. Paint

- Height: 14 to 16 hh
- Very versatile breed that can be found in every equine sport
- Friendly, calm, intelligent and strong
- In the past, this breed was used for transportation and work
- This breed's coat consists of white with another color, such as bay, black, palomino, or chestnut
- No two horses have identical markings
- The Paint breed has several color combinations
- Tobiano occurs when the color goes over one or both flanks
 - They also have rounded white patches around their withers and tail
 - The tail and mane can be two different colors
 - The head is colored and can have markings
- Overo is a color where the horse's head is white and has white patches throughout the body with the fur on the back a solid color
 - The legs can be colored or have white stockings
- Tovero color is a horse that is mainly white with the head, chest, and flank areas colored

- May also have blue eyes
- The color area of the hair may also be roan for any of the color variations
- This breed can have white details on the head, such as a blaze or star
- They can also have leg markings, such as stockings

13. Appaloosa

- The base hair color can be:
 - Red roan
 - Blue roan
 - Bay roan
 - Gray
 - Palomino
 - Chestnut
 - Cremello/perlino
 - Grulla
 - Dun
 - Buckskin
 - Black
 - Brown
 - Dark bay
 - Bay
- Facial markings include:
 - Blaze
 - Bald
 - Snip
 - Stripe
 - Star
- Leg markings include:
 - Eel
 - Pastern
 - Ankle
 - Half-pastern
 - Coronet
 - Stocking
 - Half-stockings
 - Lightening
- Skin is mottled
- Three common coat patterns:
 - 1) Blanket
 - 2) Leopard
 - 3) Marbled (white and colored hairs are not separated)

- Mane and tail are sparse
- Hooves have alternating vertical stripes of light and dark
- The sclera is visible
- Height: 14 to 15 hh
- Gentle, friendly, and loyal
- Common uses:
 - Pleasure and trail horse
 - Western and English riding sports
 - Working cattle
 - Rodeos
- They are often used in films due to their striking appearance

14. Welsh Ponies

- This breed is broken down into four categories
 - 1) Section A, commonly known as Welsh Mountain Ponies
 - The smallest of the Welsh Ponies at 12 hh or shorter
 - Delicate heads, long legs, and a deep girth
 - Good riding horses for children and in harness
 - 2) Section B, known as Welsh Pony of Riding Type
 - This type should not exceed 13.2 hh in height
 - They are known for their sloping shoulders, which give them exceptional action
 - 3) Section C, known as Welsh Pony of Cob (a “cob” is a term that refers to a large pony)
 - Should not exceed 13.2 hh in height
 - Body is compact but with a broad girth
 - Legs are short and muscular
 - Can be used in the jumping ring and as a children’s field hunter
 - 4) Section D is for Welsh Cobs that are over 13.2 hh in height
 - Have the same features as any Welsh Pony except for their height
 - Can have feathering at the heel
 - Due to the height, both adults and children can ride these horses
 - They can also be used on the farm as work horses and in the show ring
- This breed can be any color, but it cannot be piebald or skewbald
- Piebald is irregular white areas on a black background
- Skewbald is irregular white patches on a colored background other than black

15. Tennessee Walking Horse

- Height: 15.2 to 17 hh
- Can be any color but the common colors are:
 - Bay

- Black
 - Chestnut
 - White
 - Gray
 - Dun
 - Roan
 - Palomino
- Coat patterns include:
 - Sabino
 - Overo
 - Tobiano
 - Tovero
- Known for their running walk gait, which can reach 20 to 30 mph
- Easily learns other gaits
- Great for:
 - Trail rides
 - Endurance rides
 - Performing their gaits in show rings
 - Competing in English and Western saddle competitions
- This breed is often used in riding lessons for young children due to their gentle nature

16. Missouri Fox Trotter

- Height: 14 to 16 hh
- All horse colors and pinto patterns
- This breed holds itself tall with a graceful neck that supports a well-proportioned head
- Its body is short with a strong back
- Good as a cattle and ranch work horse, trail horse, and show horse due to the different gaits they can learn
- They are known for the Missouri Fox Trot, which is a four-beat gait
 - This gait is why they are valued as horses for riding long distances

17. Arabian

- Height: 14 to 16 hh
- Compact body with a small, wedge-shaped head that is held up by a long, arched neck
- Colors include:
 - Bay
 - Roan
 - Chestnut
 - Gray
 - Black
- Can have white facial markings

- Some bloodlines have certain markings, such as white faces and high, white socks
- Skin is normally black but can be sabino, which is a white pattern on the skin and coat
- Known to have “floating gaits” that make them comfortable to ride
- Used for:
 - Work
 - Pleasure
 - Long-distance trail competitions
 - Dressage

18. Morgan

- Height: 14.1 to 16.2 hh
- Deeply muscled bodies with straight, sturdy legs, but the horse is elegant
- Have a graceful, crested neck
- Small ears and expressive eyes
- Common colors are bay, black, and chestnut
- This breed can have a pinto color pattern but not tobiano
- Used as a draft horse and in harness racing
- Great for beginners and experienced riders, making them one of the go-to horses for riding lessons
- Compete in equine events that include:
 - Dressage
 - Reining
 - English
 - Western
- Oldest breed to originate in the United States

19. Andalusian

- Height: 15 to 15.1 hh
- Common colors are gray and bay
- Can have little horns near their ears and warts under their tail
- Docile, sensitive, and smart
- Easy to train but can be spirited and quick natured
- Used for:
 - Driving in films
 - Leisure riding
 - Equestrian competitions, such as dressage and show jumping

20. American Shetland Pony

- Height: 7 to 11 hh
- Common coat colors:
 - Black

- Chestnut
- Gray
- Bay
- Brown
- Roan
- Palomino
- Buckskin
- Dun
- Cream
- Champagne
- Compact body
- Broad head
- Thick neck and short legs
- Lush mane and tail
- Cannot be leopard spotted
- Can have a variety of face and leg markings
- Companions for children in horse shows
- Used in pleasure driving, such as wagons and pulling carts
- Make great pets
- Can pull more weight than a Clydesdale

21. American Cream Draft Horse

- Height: 15 to 16.3 hh
- Color is cream, which can be light to dark, with a white mane and tail
- Skin is pink and the eyes of a newborn appear white
 - As the horse ages, the eyes turn amber
- Calm nature
- Gentle, docile, and intelligent
- While this breed is short, they are still big in overall size with an average weight of 1,600 to 2,000 pounds
- Used as a draft horse but can also be seen in horse shows, riding, and pulling carriages
- The Colonial Williamsburg Living History Museum raised these horses at one time

22. Florida Cracker Horse

- Height: 13.2 to 15.2 hh
- Can be any color or pattern, but gray is the most common
- Have a natural herding instinct
- Name comes from the cracking sound the whip would make when their riders were herding cattle
 - These riders were known as “crackers”
- Due to the riders’ nickname, the horses they rode adopted the same name

- Their head is refined, and the eyes are spaced far apart
- Their eyes are dark brown, but the sclera can be white, gray, or blue
- The width of their chest is narrow to medium with an inverted "V" shape between the front legs

23. Standardbred

- Height: 14 to 17 hh
- Come in a full range of colors, but do not have any spots or markings on their face or legs
- Looks like a Thoroughbred
- Has a thick mane and tail, muscular legs, and a deep chest
- Can be broken into two groups:
 - Trotters have a diagonal gait
 - Pacers have a gait in which the legs move on the same side
- Found in endurance riding, competitive carriage, and pleasure driving
- Used in:
 - Fox hunting
 - Trail riding
 - Jumping
 - Dressage
 - Equine-assisted therapy

24. Colorado Ranger

- Height: 14.2 to 16 hh
- Same color/markings characteristics as Appaloosa (spotted coat, mottled skin, white sclera)
- Color is not a requirement
- To be this breed, one must prove the lineage to the foundation stallions
- Compact build with short legs
- Long, muscular neck
- Used in endurance competitions and as working horses on the farm and ranch due to their stamina and "cow sense"

25. Percheron

- Height: 15 to 19 hh
- Can come in the colors black, gray, chestnut, bay, roan, or sorrel
- Usually no white markings
- Weigh between 1,800 and 2,600 pounds
- Have less leg feathering than other horses
- Found in the United States and France
- Livelier than other draft horses and eager to please
- Their high stamina gives them the ability to travel and pull longer distances
- Can easily go through 25-30 pounds of hay and 4-5 pounds of grain in a day

26. Mountain Pleasure Horse

- Height: 14.2 to 15.2 hh
- Normally appears in solid colors, including:
 - Black
 - Chocolate
 - Bay
 - Buckskin
 - Cremello
- Known for their natural four-beat gait
- Only used for riding and are disqualified from any type of equine competition
- While this horse can be found anywhere, you are more likely to see it in eastern Kentucky where it was developed
 - This is because of the mountainous areas in this part of the United States

27. Nez Perce Horse

- Height: 15 to 16 hh
- Four most common colors:
 - Bay
 - Buckskin
 - Dun
 - Palomino
- Has Appaloosa traits, such as mottled skin and a blanket and/or spots
- Longer and leaner with narrow shoulders
- Commonly called "lean runner"
- Used in endurance and jumping competitions
- Breeding was started in Lapwai, Idaho where the United States government wanted to spur horse breeding of the Nez Perce tribe
- This breeding program started in 1994 and combined the efforts of the Nez Perce tribe, United States Department of and Human Services, and The First Nations Development Institute
- Can only be a cross between old-line Appaloosa (the Wallowa herd) and Central-Asian horse (Akhal-Teke breed)
- This breed is strong, versatile, and easy to maintain
- Used for:
 - General riding
 - Work activities
 - Dressage
 - Endurance riding
 - Jumping
 - Hunting

28. American Saddlebred

- Height: 15 to 16 hh
- Can be any color
- Common colors:
 - Bay
 - Chestnut
 - Black
 - Gray
- Rarer colors include palomino and pinto
- High-set tail that is very flowing
- Very dense muscles
- Highly versatile
- Used for pleasure riding to saddle seat and hunt seat competitions
- Excellent harness horses
- Can be either three-gaited or five-gaited

29. Curly Horse

- Height: 14 to 17 hh
- Strong, compact build with a short back because they have one less vertebra than other breeds
- Hooves are normally black
- The curl comes from a dominant gene, meaning there can be Curly horses with straight coats
- Coat is hypoallergenic
- Smart, steady, and brave
- Doesn't panic or run away when challenged
- Great for:
 - Beginners
 - Dressage
 - Jumping
 - Driving
 - Equine therapy
 - Ranch work

30. Rocky Mountain Horse

- Height: 14.2 to 16 hh
- Body is a solid color
- Face can have markings if they're not excessive
- Leg markings are not allowed
- Mane and tail are often flaxen
- Good natured and easy to manage

- Must have an ambling, four-beat gait displayed from birth that allows them to travel 7 to 20 mph
- Used for competitive trail or endurance riding, working with cattle, and a kid's first horse

31. Racking Horse

- Height: 15.2 to 16 hh
- Can be any color
- Well-muscled, naturally raised tail, and finely textured hair
- Gentle, intelligent, and laid-back
- Use a four-beat canter, allowing them a speed of 8 to 30 mph
- Able to do racking, a single-foot gait where only one foot comes off the ground at a time
- Used for pleasure riding, racing, and horse shows

32. Spotted Saddle Horse

- Height: 14.3 to 16 hh
- Can be found in any base color with pinto markings
- Overo and tobiano coat patterns are also very common
- Has a short back and muscular chest
- Does ambling gaits as well as four-beat walks
- A solid-colored horse can be born with no markings
 - If this happens from breeding two registered parents, then the offspring can be labeled a spotted saddle horse
- Great temperament
- Compete in pleasure and driving classes
- Used as trail horses

33. Carolina Marsh Tacky

- Height: 13 to 15 hh
- Multicolored patterns, such as pinto, are possible
- Other colors:
 - Grullo
 - Bay
 - Chestnut
 - Black
 - Dun
 - Roan
- Short and powerful back
- Legs have long muscles that become thinner at one end
- Lower legs lack feathering
- Friendly and outgoing personality
- Calm and gentle with a sweet disposition

- Known for their four-beat, ambling gait
- Can survive on little food
- Can work in marshlands
- Helps with:
 - Herding cattle
 - Hunting wild game
 - Endurance riding
 - Works well with children

34. Quarab Horse

- Height: 14 to 16 hh
- All colors are possible
- Can be spotted or solid in color with buckskin being the most common
- Head is noble-looking with large eyes, a broad chest, and medium length
- Easygoing and docile personality
- Willing to work, loving, and loyal
- Great for:
 - General riding
 - Dressage
 - Jumping
 - Endurance
 - Working with cattle

35. National Show Horse

- Height: 14.3 to 16.2 hh
- Found in a full range of colors, including pinto, but the traditional colors are:
 - Black
 - Gray
 - Bay
 - Chestnut
 - Palomino
- Neck is high and swan-like
- Tail is set high
- Head and ears are small
- Ears can be straight or concave
- Friendly and obedient personality
- Intelligent, loyal, and easygoing
- Versatile breed
- Can be seen in different types of competition, including:
 - Dressage
 - Saddle seat

- Hunter harness
- Halter
- Side saddle

36. American Walking Pony

- Height: 13.2 to 14.2 hh
- All colors are available, but if the horse is Appaloosa-colored, then it cannot be registered
- Small, chiseled head with bold eyes that are set well apart
- Ears are pointed and well-shaped
- Neck is long, arched, and well-muscled
- The gaits they can do consists of:
 - Walk
 - Pleasure walk
 - Merry walk
 - Trot
 - Canter
- Used for:
 - Pleasure
 - Harness
 - Jumping
 - Trail

37. Welara

- Height: 11 to 15 hh
- All colors are accepted, but a spotted pattern is not allowed
- Small and concave head, arched neck, and short back
- Intelligent, friendly, and versatile
- Used for:
 - General riding
 - Pleasure riding
 - Show jumping
 - Three-day events

38. Nokota Horse

- Traditional height: 14 to 15 hh
- Ranch type height: 16+ hh
- They can have blue eyes and a bald face
- Can be any color, but the predominant colors are:
 - Gray
 - Black
 - Roan

- Overos

- They produce the highest number of blue roan
- Blue Roan is a rare color type that was valued by Sitting Bull and his tribe, the Hunkpapa people
- Has a square-set, angular frame
- Has a distinctly V-shaped front end and low-set tail
- An all-purpose type of horse that does well in different types of competitions and excels in jumping
- Does well in any type of terrain
- Very quickly builds relationship with humans
- Intelligent and speedy learners

39. Camarillo White

- Height: 14.2 to 17 hh
- Must be born with white hair and pink skin
- Beyond color, they're known for their:
 - Strong limbs
 - Expressive face
 - Large eyes
 - Well-arched neck
- Good for beginners
- Typically found in California
- Participated numerous times in the Rose Parade
- Since 1924, this breed has been in the Santa Barbara Fiesta Parade
- Is the official horse of the city of Camarillo

40. Virginia Highlander

- Height: 13 to 14 hh
- Colors include:
 - Black
 - Roan
 - Gray
 - Chestnut
 - White is possible but rare
- Well-proportioned, short head with expressive, wide-set eyes
- Large nostrils and short back
- Friendly and calm personality
- Gait is single-footed and four-beat amble
- Used as a riding horse
- Mostly found in the eastern and southeastern United States

41. Blazer Horse

- Height: 15 hh or shorter
- Colors:
 - Dun
 - Buckskin
 - Palomino
 - Black
 - Bay
 - Chestnut
- Short back and refined head
- Bold eyes and sloped shoulders
- Intelligent, willing to please, and versatile
- Uses:
 - Ranch work
 - Show horse
 - Pleasure riding
 - Endurance sports

42. Morab Horse

- Height: 14.1 to 15.2 hh
- Variety of coat colors with dark skin
- While rare, there can be white markings on the lower legs and face
- Flared nostrils and broad cheeks
- A narrow muzzle and expressive, large eyes with a wide, deep chest
- As the name implies, this breed is a combination of Morgan, Arab, and Quarter horses
- Steady disposition and strong
- Have a natural, free gait, but registered Morab learn to be three-gaited
- Used for:
 - Pleasure horses
 - Trail riding
 - Driving
 - Jumping
 - Showing

43. Clydesdale

- Height: 16.2 to 18 hh
- Common colors:
 - Bay
 - Brown
 - Black
 - Chestnut

- Roan
- Preferred markings are white socks up the knees and hocks as well as a well-defined blaze or bald face
- Light roan coat with dark legs are also acceptable now
- Very large hooves
- In the past, farmers could not use these horses in the field because their hooves didn't fit in the field furrows
- They were used in towns to pull wagons
- Roman nose or dished profile
- Large ears, wide muzzles and nostrils, and a well-arched, long neck
- Known as the "Budweiser horse"
- High-stepping intelligent, and strong
- Used as a draft and show horse

44. Canadian Horse

- Height: 14 to 16 hh
- Colors:
 - Dark brown
 - Bay
 - Chestnut
 - Black
- Calm and docile but energetic
- Head is wedge-shaped with small ears
- A square nose, wide-set eyes, and a short back
- Very versatile as a trail horse and, with training, can be found in the show ring
- Used in Western saddle and English hack

45. Chincoteague Pony

- Height: 14.2 hh and shorter
- Color is mostly paint (piebald and skewbald) and pinto, which includes overo and tobiano
- May also be solid black and solid sorrel or chestnut with a flaxen mane and tail
- Strong, muscular tail that sits low on their rump
- Normally have one or two cowlicks on their forehead
- Uses:
 - Endurance races
 - Hunter/jumper
 - Trail riding
 - Western pleasure
 - Driving
- Produces a very thick winter coat so no blanket is required

46. Kiger Horse

- Height: 13.2 to 15.2 hh
- Colors:
 - Dun (most common)
 - Gray
 - Grullo
 - Black
- Compact and well-muscled with a short back and deep chest
- Highly intelligent and calm with a good temper
- Uses:
 - Work horse
 - Dressage
 - Endurance
 - General riding

47. Friesian Horse

- Height: 15.3 to 17 hh
- Known for their solid black coats, but recently chestnut and bay colors have appeared
- The only white allowed is a small star on the forehead
- Powerful body with small head and ears
- Long, arched neck
- There are two types:
 - The baroque type is the traditional form, which is thick-boned and heavier
 - The sports type has thinner bones and is used in horse shows
- Beyond the traditional black color, this breed is known for its long mane and tail along with feathers, which are long, silky hairs that start at the middle of the leg and drape over the ankle
- In the past, this breed was used as a war horse because they do not spook easily
- Eager to please and learn
- Used in dressage
- Higher rate of genetic disorders with one being dwarfism

48. Belgian Horse

- Height: 16.2 to 17 hh
- Colors are sorrel or roan
- Most prized coloration:
 - Chestnut or sorrel
 - White mane and tail
 - White stripe on the face
 - Four white socks
- Body is compact with a short, wide back and powerful loins

- Have “double muscling” over the croup with medium hooves for a draft horse and limited “feathering”
- Easy to handle and kind in mood
- Used for any type of draft work, such as plowing, logging, and pulling carriages and sleighs
- In recent years, they have appeared in different equine competitions, such as Western riding and jumping

Lesson One – Horse Breeds

REVIEW: Recap of Horse Breeds

10 minutes

Purpose:

Participants will review the horse breeds and traits by using flashcards. They will then be tested on their knowledge with a short quiz.

5. Collect the quiz.

Materials:

- *Horse Kit Breed ID Flashcards*
- *Horse Breeds Quiz*
- *Horse Breeds Quiz – Answer Key*

Facilitation Steps:

1. Break participants into small groups and distribute the flashcards.
2. Provide direction on how to use the cards and give participants five minutes to study them.
3. Collect the cards and have participants return to their seats.
4. Distribute the quiz and give participants five minutes to complete it.

Name: _____ Class: _____

Horse Breeds Quiz

Directions: Select the best answer for each question below.

1. The measurement standard that is used to measure the height of a horse is:
 - A. Hectacre high
 - B. Hands high
 - C. Hump high
 - D. Hologram high
2. This breed of horse is known as the “Budweiser” horse.
 - A. Welsh pony
 - B. Thoroughbred
 - C. Pony of Americas
 - D. Clydesdale
3. While this breed is famously known for their black color, recently, roan and chestnut colors have been accepted.
 - A. Friesian
 - B. Kiger
 - C. Belgian
 - D. Thoroughbred
4. Due to the thick coat of this breed, no blanket is required.
 - A. Belgian
 - B. Welsh pony
 - C. Chincoteague pony
 - D. Canadian horse
5. This breed’s name hints at its genetic background, which includes Morgan, Arab, and Quarter horse.
 - A. Thoroughbred
 - B. Friesian
 - C. Morgan
 - D. Morab

6. What breed is known to produce horses with exactly the same markings?
 - A. Welsh pony
 - B. Paint
 - C. Morgan
 - D. Pony of Americas (POA)
7. Select the correct definition of what a black horse needs to look like.
 - A. Pink skin with a black coat, mane, and tail
 - B. Black coat and mane, white tail, and spotted skin
 - C. Pink skin and white nose with a black coat, mane, and tail
 - D. Can have a small white spot on the forehead and must have a black coat, mane, tail, and skin
8. To be a registered member of this breed, the coat can be one of 17 colors with limited white on the face and below the knees.
 - A. Quarter horse
 - B. Morab
 - C. Thoroughbred
 - D. Kiger
9. This breed names its foal according to the sex of the foal, meaning a female filly's name will start with the first letter of her mother's name and a male colt's name will start with the first letter of his father's name.
 - A. Thoroughbred
 - B. Haflinger
 - C. Appaloosa
 - D. Tennessee Walking horse
10. Which breed is known to have little horns behind their ears and warts under their tail?
 - A. Belgian
 - B. Welsh pony
 - C. Canadian horse
 - D. Andalusian
11. What makes up the color palomino?
 - A. Coat is golden with a flaxen mane and tail
 - B. Coat is golden with a black mane and tail
 - C. Coat is white with a red mane and tail
 - D. Coat has a white background with spots and a flaxen mane and tail

12. What is required for a horse coloration to be called white?
- A. Black skin with a white coat, mane, and tail
 - B. White coat, any color mane and tail, and spotted skin
 - C. Pink skin with a white coat, mane, and tail
 - D. Black ears and pink skin with a white coat, mane, and tail
13. This breed is known as a “racehorse.”
- A. Appaloosa
 - B. Thoroughbred
 - C. Friesian
 - D. Andalusian
14. This breed can survive on little food and easily works in marshes.
- A. American Walking pony
 - B. Morab
 - C. Carolina Marsh Tacky
 - D. Virginia Highlander
15. What breed has been in the Rose Parade and Santa Barbara Fiesta Parade and is the name of a city?
- A. Camarillo White
 - B. Morgan
 - C. Nokota horse
 - D. Mountain Pleasure horse
16. This breed has two types, which includes the heavenly and royalty classifications.
- A. Carolina Marsh Tacky
 - B. American Saddlebred
 - C. Belgian
 - D. Tiger
17. This breed is known for its curly hair and its hypoallergenic coat.
- A. Morab
 - B. Curly
 - C. American Walking pony
 - D. Pony of Americas (POA)
18. What is the definition of a pony?

- A. A horse that is taller than 14.3 hh only
- B. A horse that is 14.3 hh or shorter
- C. Both biologically and anatomically different from a horse while being 14.3 hh or shorter
- D. A horse whose breed is called pony

19. What is a bald face?

- A. A horse's face that has a white marking covering most of the face
- B. A horse without any hair on its face
- C. A horse that has a wide, long, white stripe going down its nose
- D. A horse with a black nose

20. Which is the best definition of a sock marking?

- A. White hair that goes up to the ankle
- B. White hair that goes up to the hip
- C. White hair that goes up to the knee
- D. White hair that is long and drapes over the hooves

Horse Breeds Quiz – Answer Key

Directions: Select the best answer for each question below.

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Lesson Two – Horse Feeding and Management

Lesson Overview

Participants will learn about the feeding and management of horses.

Lesson Objectives

After completing this lesson, participants will be able to:

- List the foods that are safe for horses to eat
- Define what type of diet a horse follows
- Explain why a horse has this type of diet
- Define each of the foods that horses eat
- Describe why a horse needs salt
- List what makes up feeding essentials
- List what makes up handling and grooming essentials
- List what essentials are required to ride a horse
- Describe what type of housing essentials a horse needs to stay healthy

Lesson at a Glance

Activity	Materials	Preparation	Approximate class time
FOCUS	• <i>What Do Horses Eat?</i> worksheet • <i>What Do Horses Eat?</i> – Answer Key	1. Print/photocopy <i>What Do Horses Eat?</i> worksheet (one per participant)	10 minutes
LEARN	• <i>Horse Feeding and Management</i> slide presentation • <i>Horse Feeding and Management</i> worksheet • <i>Horse Feeding and Management</i> – Answer Key	1. Print/photocopy <i>Feeding and Management</i> worksheet (one per participant) 2. Prepare <i>Horse Feeding and Management</i> slide presentation for viewing	40 minutes
REVIEW	• Horse Feeding and Management Poster • <i>Horse Feeding and Management Quiz</i> • <i>Horse Feeding and Management Quiz</i> – Answer Key	1. Prepare Horse Feeding and Management Poster 2. Print/photocopy <i>Horse Feeding and Management Quiz</i> (one per participant)	10 minutes

Lesson Two – Horse Feeding and Management

FOCUS: Intro to Feeding and Management

10 minutes

Purpose:

Participants will be introduced to the foods that horses eat.

Material

- *What Do Horses Eat?* worksheet
- *What Do Horses Eat?* – Answer Key

Facilitation Steps:

1. Distribute the worksheet and explain the directions.
2. Give participants five minutes to fill out the worksheet and have them exchange papers.
3. Go over the correct answers together and collect the worksheets.

Name: _____ Class: _____

What Do Horses Eat?

Directions: Cross out the foods that horses should avoid for proper growth.

1. Potatoes
2. Candy
3. Hay
4. Chicken
5. Cheese
6. Salt
7. Oats
8. Lemons
9. Bread
10. Pasture
11. Roses
12. Fish
13. Carrots
14. Beet pulp
15. Hot dogs
16. Apples

What do Horses Eat? – Answer Key

Directions: Cross out the foods that horses should avoid for proper growth.

1. ~~Potatoes~~

2. ~~Candy~~

3. Hay

4. ~~Chicken~~

5. ~~Cheese~~

6. Salt

7. Oats

8. ~~Lemons~~

9. ~~Bread~~

10. Pasture

11. ~~Roses~~

12. ~~Fish~~

13. Carrots

14. Beet pulp

15. ~~Hot dogs~~

16. Apples

Lesson Two – Horse Feeding and Management

LEARN: Horse Feeding and Management

40 minutes

Purpose:

Participants will watch a slide presentation while filling out the worksheet on horse feeding and management.

Materials:

- *Horse Feeding and Management* slide presentation
- *Horse Feeding and Management* worksheet
- *Horse Feeding and Management – Answer Key*

Facilitation Steps:

1. Prepare the *Feeding and Management* slide presentation and distribute the worksheet.
2. Answer any questions participants have and present the slides.
3. Once the presentation is done, collect the worksheet.

Slide 1: Introduction slide.

Slide 2: What Term Describes a Horse's Diet?

- Omnivore
- Flexivore
- Carnivore
- Pescatarian
- Herbivore
- Pollotarian

Slide 3: The Equine Diet Type Is...

- Herbivore
- A diet that only consists of plants

Slide 4: Why Are Horses Herbivores?

- Horses have the tools to process tough plant material
- They have flat teeth that grind the plant material up and a very long digestive tract
- A long digestive tract is required to break down the tough cellulose fibers of plants and get their nutritional components

Slide 5: What Does Their Diet Consist Of?

- Pasture and tender plants
- Hay
- Grains
- Salt and minerals

Slides 6-7: Pasture and Tender Plants

- Pasture is loosely defined as fresh grass left growing on the ground
 - It normally contains young plants, weeds, and herbs
- It is very important that horses get some type of fresh grass because it contains silica, which is important to their dental health
- Beyond roughage, pasture and tender plants provide a low-sugar food source that makes up a horse's natural diet
- Since this food source sustained primitive horses for centuries, it naturally supports a horse's wellbeing and overall health

Slide 8: Is It Hay or Haylage?

- Hay is grass that is cut and left in the field to dry to a point that only 10-15% of the moisture is left
- Haylage is grass that is cut and left in the field to dry but only to the point that 45-50% of the moisture is still left
- The reason for drying the grass is to provide roughage when fresh grass is not available

Slides 9-10: Are Hay and Haylage Equal?

- These two forms of dried grass are different
- Hay provides roughage, which offers some energy with little weight gain
- Great for horses doing light work
- The negative of hay is that it can contain dust and mold spores, which can make the horse sick if inhaled

- To prevent sickness, wet the hay down prior to unrolling
- Haylage is younger grass that has more nutritional value than hay
- It tastes better
- Can cause quick weight gain
- Because the haylage is wrapped, it tends to have less dust and mold spores, making it healthier for horses
- Once the haylage is opened, it needs to be used quickly to keep it from spoiling
- The moisture left in the harvested grass is what speeds up the spoilage

Slide 11: How Much Pasture/Hay Is Required?

- Just like a human, the amount of work or activity that a horse is involved in will determine the amount of pasture/hay required for good health
- On average, a horse needs 2-2.5% of its weight in pasture/hay every day just to maintain its current weight

Slide 12: What Are Grains?

- A grain is a cultivated cereal crop
- Examples:
 - Oats
 - Corn
 - Barley
 - Wheat bran
- Grains provide more nutrition compared to grass

Slides 13: Function of Oats

- Oats are well suited to a horse's digestive system and horses love them
- Oats have lower energy value and a higher fiber level compared to other grains
- The term "oats" generally refers to grains fed to horses, but this feed may not contain oats

Slide 14: Function of Corn

- Corn is another grain that is easy for horses to digest, and they like it
- It provides double the energy compared to oats and less fiber
- Because of this, horses can easily overeat this grain

- Overeating will cause weight gain and other health problems
- For this reason, corn is never given to horses alone
- It is mixed with other grains to make the mix tasty and higher in energy

Slide 15: Function of Barley

- Barley is a grain that is combined with oats and corn
- The seed head needs to be processed to remove the seed hulls so that the grain is easier for the horse to digest

Slide 16: Function of Wheat Bran

- Wheat bran is the outer layer of a wheat kernel
- While it is not a typical grain that horses eat, it is added to feed to increase the nutritional value of the grain mixture
- However, it is high in phosphorus, and a diet high in phosphorus can cause health problems

Slide 17: What Spices Do Horses Require?

- Horses require salt and minerals
- They can be sprinkled on food or on the ground
- You can also give horses a salt block, which is just a block of salt and minerals placed in the field or barn
- As needed, the horses will like the block to acquire the salt

Slide 18: What's For Dessert?

- Many food sources can be considered dessert for horses, but these foods should only be given as a treat
- If they are given these treats too often, they will gain weight

Slide 19: Horse Treats

- Each horse is different, so some of these treats may not be tasty to every equine
- Treat examples:
 - Carrots
 - Apples
 - Peppermints
 - Raisins
 - Sugar cubes

- Hay cubes
- Sunflower seeds
- Pitted dates
- Avoid grass clippings, which can contain toxic plants

Slides 20-21: Feeding Essentials

- While horses do eat grass off the ground, it is better to put feed and water in a container to prevent contamination
- They will need:
 - A feed pan to hold different feed, such as grain
 - A feed container to protect feed until it is needed
 - A water bucket or trough to hold clean water

Slides 22-26: Handling and Grooming Essentials

- While being able to handle a horse safely is very important, so is keeping your horse clean
- A groomed horse is less likely to develop rashes, thrush, and other health problems
- Handling equipment includes a halter and lead rope
- Grooming essentials include:
 1. A hoof pick to remove stones, dirt, and snow from the hooves
 2. A curry comb to remove hair and dirt from the coat
 3. A body brush to remove dust from the coat, keeping it shiny
 4. A mane and tail comb to remove tangles from these areas without pulling hair out
 5. Blankets or sweat sheets to keep a horse warm or cool and the coat clean before a show
 6. Equine shampoo, conditioner, and detangler to keep the horse's coat shiny and make grooming a bit easier
 7. A sweat scrubber to remove sweat from a horse or water from the coat after a washing

Slides 27-30: Riding Essentials

- A saddle and saddle blanket are highly recommended
- While a saddle may seem to be optional, riding a horse without a saddle is hard on both the rider and the horse
- The blanket protects the horse's skin from rubbing that can occur while the saddle is on the back of the horse
- A bridle and bit are like a halter, but they have a piece that goes in the horse's mouth
- This combination gives the rider control of the horse
- Leg protection is needed for the horse because they have very delicate legs, which need to be protected from bruises, cuts, and other injuries
- While you may see people riding horses without a helmet, it is not recommended
- One should also wear riding boots and a safety vest
- All these items are recommended to protect the rider from injury that may occur from a fall

Slides 31-35: Housing Essentials

- Housing essentials depend on several factors, including the needs of the horse, how the horse is going to be used, and what the owner can afford
1. A three-sided barn so horses can get out of the weather
 2. A stall to work with the horse
 - A tie stall is 5 feet wide by 10 feet long
 - Has the horse tied so that it can be saddled or handled
 - Due to the confined space, horses need to exercise often
 - A box stall is 10 feet wide by 14 feet long
 - Often used by broodmares and foals
 - Sometimes have removeable sides to make room for larger horses
 3. Bedding for the horse's comfort and to absorb waste

Horse Kit Curriculum

- While straw and wood shavings are very common bedding materials, you can also use:
 - Peat moss
 - Rice hulls
 - Peanut hulls
 - Sawdust
 - Paper pulp
- 4. Fencing to keep horses on the land they are supposed to be on
 - The type of fence can be as simple as wooden posts in the ground with a hardwood board or post and rail construction

Name: _____

Class: _____

Horse Feeding and Management

Directions: Fill in the blanks as you watch the slide presentation.

1. The Equine Diet Type is...

- _____
- A diet that only consists of _____

2. Why Are Horses Herbivores?

- _____ the _____ to _____
- They have _____ that _____ the _____
_____ up and a _____
- A long digestive tract is _____ to break down the _____
_____ of _____ and get their

3. What Does Their Diet Consist Of?

- _____
- _____
- _____
- _____

4. Pasture and Tender Plants

- _____ is _____ as
_____ on the ground
a. It normally _____,
_____, and _____
- It is very _____ that _____
some type of _____ because it _____
_____, which is _____ to their _____
- _____, pasture and tender plants
_____ a _____ - _____

_____ that _____ a _____

- Since this food source sustained primitive horses for centuries, it _____
_____ a horse's _____ and _____

5. Is It Hay or Haylage?

- _____ is _____ that is _____ and _____ the
_____ to _____ a point that only _____ - _____% of the
_____ is _____
- _____ is _____ that is _____ and _____ the
_____ to dry but _____ the _____ that _____ - _____% of
the _____ is still left
- The _____ the _____ is to
_____ when _____ is _____

6. Are _____?

- These two forms of dried grass are different
- _____, which _____
_____ with _____
- _____ horses _____
- The _____ of _____ is that it _____
_____, which _____ the
_____ if _____
- To _____, the hay _____

- _____ is _____ that has _____
_____ than hay
- It _____
- Can _____
- Because _____, it tends to have
_____, making it
_____ for horses
- Once the _____, it needs to be _____
_____ to _____ it from _____
- The _____ in the harvested grass is what
_____ the _____

7. How Much Pasture/Hay is Required?

- Just like a human, the _____ that a horse is involved in will _____ the amount of _____ / _____ for good health
- On _____, a horse needs _____ - _____ % of its _____ in _____ / _____ just to _____ its _____

8. What Are Grains?

- A grain is a _____
- _____ :
 - _____
 - _____
 - _____
 - _____
- _____ provide _____ to _____

9. Function of Oats

- _____ are well _____ to a horse's _____ and _____
- _____ have _____ and a _____ to _____
- The term " _____ " _____ to _____ to _____, _____ this feed _____

10. Function of Corn

- _____ is another grain that is _____ for horses _____, and they _____
- It _____ the _____ to _____ and _____
- Because of this this, horses can easily _____
- Overeating will _____ and _____
- For this reason, _____ is _____ to horses _____
- It is _____ to make the mix _____ and _____ in _____

11. Function of Barley

- _____ is a grain that is _____

- The seed _____ to be _____ to
_____ the _____ so that the grain is _____ for
the horse _____

12. Function of Wheat Bran

- Wheat bran is the _____ the _____
- While it is _____ a _____ that horses eat, it is
_____ to _____ the _____
_____ of the _____
- However, it is _____, and a _____
_____ in _____ can cause _____

13. What Spices Do Horse Require?

- Horses require _____
- They can be _____ or on the _____
- You can also give horses a _____, which is just a _____
_____ the _____
- As needed, the _____ the _____ to
_____ the _____

14. What's For Dessert?

- _____ can be considered _____ for
horses, but these foods should _____ be _____ as a _____
- If they are given _____ too often, they will _____

15. Horse Treats

- _____ is _____, so some of these treats may _____ be

- Treat examples:
 - _____
 - _____
 - _____
 - _____
 - _____
 - _____
 - _____

- _____
- _____, which can contain toxic plants

16. _____

- While _____ the _____, it is _____ to _____ a _____ to _____
- They will need:
 - A _____ to hold _____, such as grain
 - A _____ to _____ until it is _____
 - A water bucket or trough to hold clean water

17. _____ and _____

- While being able to handle a horse safely is _____, so is _____ your _____
- A _____ is _____ to _____, _____, and _____
- _____ includes a _____
- _____ include:
 - 1) A _____ to _____, _____, and _____ the _____
 - 2) A _____ to _____ and _____ from the _____
 - 3) A _____ to _____ the _____, keeping it _____
 - 4) A _____ to _____ from these areas _____
 - 5) _____ to _____ a _____ and the _____ a _____
 - 6) Equine _____, _____, and _____ to _____ the horse's _____ and make _____ a bit _____
 - 7) A _____ to _____ from a horse _____ the _____ a _____

18. _____

- A saddle and saddle blanket are highly recommended
- While a _____ may seem to be _____, _____ a horse _____ a _____ is _____ the _____
- The _____ the _____ from _____ that can occur _____ the _____ is _____ the _____ of the horse
- A _____ are like a _____, but they _____ a _____ that goes in the _____
- This _____ the _____ of the _____
- _____ is needed _____ the _____ because they have very _____, which _____ to be _____, _____, and _____
- While you may see people _____ a _____, it is _____
- One should also _____ and a _____
- All these items are _____ the _____ that may occur _____ a _____

19. Housing Essentials

- _____ essentials _____ on _____, including the _____ the _____, _____ the _____ is going _____, and _____ the _____
- 1) A _____ - _____ so horses can _____ the _____
- 2) A _____ to _____ with the horses
 - A _____ is _____
 - Has the horse _____ so that it can be _____
 - Due to the _____, horses _____ to _____
 - A _____ is _____
 - Often used by _____
 - _____ to _____ for larger _____

3) _____ for the horse's comfort and to absorb waste

- While _____ and _____ are _____
_____ bedding materials, you can also _____:

- _____
- _____
- _____
- _____
- _____

4) _____ to keep horses on the land they are supposed to be on

- The _____ can _____ as _____ as
_____ in the ground _____ a
_____ and _____

Horse Feeding and Management – Answer Key

Directions: Fill in the blanks as you watch the slide presentation.

1. The Equine Diet Type is...

- Herbivore
- A diet that only consists of plants

2. Why Are Horses Herbivores?

- Horses have the tools to process tough plant material
- They have flat teeth that grind the plant material up and a very long digestive tract
- A long digestive tract is required to break down the tough cellulose fibers of plants and get their nutritional components

3. What Does Their Diet Consist Of?

- Pasture and tender plants
- Hay
- Grains
- Salt and minerals

4. Pasture and Tender Plants

- Pasture is loosely defined as fresh grass left growing on the ground
 - a. It normally contains young plants, weeds, and herbs
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- Great for horses doing light work
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- It tastes better
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- Corn is another grain that is easy for horses to digest, and they like it
- It provides double the energy compared to oats and less fiber
- Because of this, horses can easily overeat this grain
- Overeating will cause weight gain and other health problems
- For this reason, corn is never given to horses alone

- It is mixed with other grains to make the mix tasty and higher in energy

11. Function of Barley

- Barley is a grain that is combined with oats and corn
- The seed head needs to be processed to remove the seed hulls so that the grain is easier for the horse to digest

12. Function of Wheat Bran

- Wheat bran is the outer layer of the wheat kernel
- While it is not a typical grain that horses eat, it is added to feed to increase the nutritional value of the grain mixture
- However, it is high in phosphorus, and a diet high in phosphorus can cause health problems

13. What Spices Do Horses Require?

- Horses require salt and minerals
- They can be sprinkled on food or on the ground
- You can also give horses a salt block, which is just a block of salt and minerals placed in the field or barn
- As needed, the horses will lick the block to acquire the salt

14. What's For Dessert?

- Many food sources can be considered dessert for horses, but these foods should only be given as a treat
- If they are given these treats too often, they will gain weight

15. Horse Treats

- Each horse is different, so some of these treats may not be tasty to every equine
- Treat examples:
 - Carrots
 - Apples
 - Peppermints
 - Raisins
 - Sugar cubes
 - Hay cubes
 - Sunflower seeds
 - Pitted dates
- Avoid grass clippings, which can contain toxic plants

16. Feeding Essentials

- While horses do eat grass off the ground, it is better to put feed and water in a container to prevent contamination
- They will need:
 - A feed pan to hold different feed, such as grain
 - A feed container to protect feed until it is needed
 - A water bucket or trough to hold clean water

17. Handling and Grooming Essentials

- While being able to handle a horse safely is very important, so is keeping your horse clean
- A groomed horse is less likely to develop rashes, thrush, and other health problems
- Handling equipment includes a halter and lead rope
- Grooming essentials include:
 - 1) A hoof pick to remove stones, dirt, and snow from the hooves
 - 2) A curry comb to remove hair and dirt from the coat
 - 3) A body brush to remove dust from the coat, keeping it shiny
 - 4) A mane and tail comb to remove tangles from these areas without pulling hair out
 - 5) Blankets or sweat sheets to keep a horse warm or cool and the coat clean before a show
 - 6) Equine shampoo, conditioner, and detangler to keep the horse's coat shiny and make grooming a bit easier
 - 7) A sweat scrubber to remove sweat from a horse or water from the coat after a washing

18. Riding Essentials

- A saddle and saddle blanket are highly recommended
- While a saddle may seem to be optional, riding a horse without a saddle is hard on both the rider and horse
- The blanket protects the horse's skin from rubbing that can occur while the saddle is on the back of the horse
- A bridle and bit are like a halter, but they have a piece that goes in the horse's mouth
- This combination gives the rider control of the horse
- Leg protection is needed for the horse because they have very delicate legs, which need to be protected from bruises, cuts, and other injuries
- While you may see people riding horses without a helmet, it is not recommended
- One should also wear riding boots and a safety vest
- All these items are recommended to protect the rider from injury that may occur from a fall

19. Housing Essentials

- Housing essentials depend on several factors, including the needs of the horse, how the horse is going to be used, and what the owner can afford
 - 1) A three-sided barn so horses can get out of the weather
 - 2) A stall to work with the horses

- A tie stall is 5 feet wide by 10 feet long
 - Has the horse tied so that it can be saddled or handled
 - Due to the confined space, horses need to exercise often
 - A box stall is 10 feet wide by 14 feet long
 - Often used by broodmares and foals
 - Sometimes have removeable sides to make room for larger horses
- 3) Bedding for the horse's comfort and to absorb waste
- While straw and wood shavings are very common bedding materials, you can also use:
 - Peat moss
 - Rice hulls
 - Peanut hulls
 - Sawdust
 - Paper pulp
- 4) Fencing to keep horses on the land they are supposed to be on
- The type of fence can be as simple as wooden posts in the ground with a hardwood board or post and rail construction

Lesson Two – Horse Feeding and Management

REVIEW: Recap of Horse Feeding and Management

10 minutes

Purpose:

Participants will review the information on horse feeding and management. They will then be tested on their knowledge.

Materials:

- Horse Feeding and Management Poster
- *Horse Feeding and Management Quiz*
- *Horse Feeding and Management Quiz*
– Answer Key

Facilitation Steps:

1. Direct the participants to the poster and instruct them to review the information presented.
2. After five minutes, distribute the quiz and go over the directions.
3. Give participants five minutes to take the quiz.
4. Collect the quiz.

Name: _____ Class: _____

Horse Feeding and Management Quiz

Directions: Circle the correct answer for each statement.

1. It is very important that a horse eats some fresh grass because it contains copper, which is important to their dental health. True or False
2. Haylage is grass that is cut and dried so that only 10-15% of moisture is left. True or False
3. A horse is considered an herbivore. True or False
4. The term "oats" refers to the grain and a generic term for a combination of grains fed to horses. True or False
5. Giving a horse too much wheat bran can cause health problems. True or False
6. Chicken can be given to a horse as a treat. True or False
7. If you are going to ride a horse, it is a good idea to put leg protection on the horse. True or False
8. A sweat scrubber is used to loosen up dirt and grime while bathing a horse. True or False
9. Bedding serves no purpose when it comes to raising horses. True or False
10. A box stall has movable sides that allow one to make more room for a horse. True or False
11. To reduce health issues, it is wise to place feed in a feed pan. True or False
12. Grass clippings are fine for a horse to eat. True or False
13. Horses are able to eat grass because of their short digestive tract. True or False
14. Pasture can be loosely defined as young plants, weeds, and herbs. True or False
15. Horses commonly graze on pasture, but primitive horses only consumed leaves off of trees. True or False
16. Hay contains dust and mold spores, which can make a horse sick. True or False
17. To keep a horse at its current weight, it will need to consume 10-15% of its weight in pasture and/or hay. True or False
18. The seed hulls of barley need to be removed before this grain can be fed to horses. True or False
19. A groomed horse is less likely to develop rashes, thrush, and other health problems. True or False
20. A saddle blanket is not recommended to put underneath a saddle. True or False
21. A bridle and bit combination allow the rider to control the horse while riding. True or False
22. A horse does not require any type of shelter. True or False
23. A mane and tail comb is used to remove tangles from a horse's mane and tail. True or False
24. Treats should be given to a horse daily since it contributes to their health and wellbeing. True or False

Feeding and Management of Horses

Quiz – Answer Key

Directions: Circle the correct answer for each statement.

1. It is very important that a horse eats some fresh grass because it contains copper, which is important to their dental health. True or **False**
2. Haylage is grass that is cut and dried so that only 10-15% of moisture is left. True or **False**
3. A horse is considered an herbivore. **True** or False
4. The term “oats” refers to the grain and a generic term for a combination of grains fed to horses. **True** or False
5. Giving a horse too much wheat bran can cause health problems. **True** or False
6. Chicken can be given to a horse as a treat. True or **False**
7. If you are going to ride a horse, it is a good idea to put leg protection on the horse. **True** or False
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22. A horse does not require any type of shelter. True or **False**
23. A mane and tail comb is used to remove tangles from a horse’s mane and tail these areas. **True** or False
24. Treats should be given to a horse daily since it contributes to their health and wellbeing. True or **False**

Lesson Three – Horse Diseases and Parasites

Lesson Overview

Participants will learn about the common diseases and parasites of horses.

Lesson Objectives

After completing this lesson, participants will be able to:

- Define the difference between domestic and foreign diseases
- List common diseases of horses
- Describe causes and symptoms for each disease
- List common parasites of horses
- Describe causes and symptoms for each parasite
- List horse diseases that can infect humans
- Describe the difference between an external and internal parasite

Lesson at a Glance

Activity	Materials	Preparation	Approximate class time
FOCUS	• <i>Is My Horse Sick?</i> worksheet • <i>Is My Horse Sick?</i> – Answer Key	1. Print/photocopy <i>Is my Horse Sick?</i> worksheet (one per participant)	10 minutes
LEARN	• <i>Horse Diseases and Parasites</i> slide presentation • <i>Horse Diseases and Parasites</i> worksheet • <i>Horse Diseases and Parasites</i> – Answer Key	1. Print/photocopy <i>Horse Diseases and Parasites</i> worksheet (one per participant) 2. Prepare <i>Horse Disease and Parasites</i> slide presentation for viewing	40 minutes
REVIEW	• <i>Horse Kit Diseases and Parasites Trivia Cards</i> • <i>Horse Diseases and Parasites Quiz</i> • <i>Horse Diseases and Parasites Quiz</i> – Answer Key	1. <i>Horse Kit Diseases and Parasites Trivia Cards</i> 2. Print/photocopy <i>Horse Diseases and Parasites Quiz</i> (one per participant)	10 minutes

Lesson Three – Horse Diseases and Parasites

FOCUS: Intro to Horse Diseases and Parasites

10 minutes

Purpose:

Participants will understand the general symptoms that indicate a horse is suffering from a disease or parasite.

Materials:

- *Is My Horse Sick?* worksheet
- *Is My Horse Sick?* – Answer Key

Facilitation Steps:

1. Distribute the worksheet and provide instruction on how to complete it.
2. After five minutes, instruct the participants to trade papers and go over the answers as a class.
3. Collect the worksheet.

Name: _____ Class: _____

Is My Horse Sick?

Directions: Cross out the symptoms listed below that are not an indication that a horse is sick.

1. Change in droppings (poop)
2. A sore throat
3. Scratching with hooves
4. Lameness
5. Half-chewed food hanging out of the mouth
6. Wanting to lay down
7. Showing teeth
8. Eating wood
9. Dull coat
10. Fluid coming out of the eyes
11. Excessive farting
12. Unusual weight gain or loss
13. Change in behavior
14. Sweating
15. Teeth clacking together
16. Dry nose
17. Pawing at the ground
18. Gums are salmon in color
19. Ears are standing straight up
20. Tail frequently swishes back and forth

Is My Horse Sick? – Answer Key

Directions: Cross out the symptoms listed below that are not an indication that a horse is sick.

- ~~1. Change in droppings (poop)~~
2. A sore throat
3. Scratching sides with hooves
- ~~4. Lameness~~
- ~~5. Half chewed food hanging out of the mouth~~
- ~~6. Wanting to lay down~~
7. Showing teeth
8. Eating wood
- ~~9. Dull coat~~
- ~~10. Fluid coming out of the eyes~~
11. Excessive farting
- ~~12. Unusual weight gain or loss~~
- ~~13. Change in behavior~~
- ~~14. Sweating~~
15. Teeth clacking together
16. Dry nose
- ~~17. Pawing at the ground~~
18. Gums are salmon in color
19. Ears are standing straight up
20. Tail frequently swishes back and forth

Lesson Three – Horse Diseases and Parasites

LEARN: Horse Diseases and Parasites

40 minutes

Purpose:

Participants will watch the slide presentation to learn about horse diseases and parasites.

Materials:

- *Horse Diseases and Parasites* slide presentation
- *Horse Diseases and Parasites* worksheet
- *Horse Diseases and Parasites* – Answer Key

Facilitation Steps:

1. Set up the slide presentation and distribute the worksheet.
2. Provide instruction on how to fill out the worksheet and present the slides.
3. After the presentation is complete, collect the worksheet.

Slide 1: Introduction slide

Slide 2: How To Tell if a Horse Is Sick

- When it comes to determining if a horse is sick, it is important to understand the horse's normal behavior
- This observation of individual horse behavior can mean life or death for the animal
- Many equine diseases can cause death very quickly if not addressed properly

Slide 3: Domestic Versus Foreign Diseases

- Because it is not uncommon for horses to travel abroad, diseases are divided into domestic and foreign
- A domestic disease is one that equines can get in North America
- A foreign disease is one that equines can pick up abroad

Slide 4: Domestic Equine Diseases

Slide 5: Blastomycosis (*Blastomyces dermatitidis*)

- A fungal disease that attacks multi-body systems and lesions
- While normally found in dogs, it can appear in horses
- Can also cause respiratory problems, which leads to a diagnosis
- Treatment is an antifungal medication

Slides 6-8: Botulism (*Clostridium botulinum*, types A, B, C, and D)

- Botulism is caused by toxins produced by the bacteria
- This is a neurotoxin that paralyzes the diaphragm
- When this happens, the horse's diaphragm stops expanding and contracting, causing the animal to die from lack of oxygen
- Horses can get botulism three ways:
 1. Consuming hay or feed contaminated with the fungus
 2. Consuming hay or feed contaminated with the toxins
 3. By entering wounds either as a fungus or toxins
- Treatment can occur in three ways:
 1. A hyperimmune plasma can be given, but it is very expensive
 2. Reduce the exposure by not exposing horses to hay and/or feed that has been rained on
 3. Vaccinating horses for botulism

Slides 9-10: Coronavirus

- Viral disease caused by an RNA virus, which causes gastrointestinal disease in horses
- Spread by ingestion of fecal matter from a horse infected with the disease
- Symptoms:
 - Fever up to 105° F

- Lack of appetite
- Depression
- Laying down
- Colic
- Low white blood cell count
- Treatment is supportive care that entails keeping the animal hydrated

Slides 11-12: Equine Herpesvirus

- A virus that is spread from horse to horse by nasal discharge, aerosol discharge (sneezing), and/or contaminated surfaces
- Symptoms:
 - Fever
 - Late-term abortion
 - Neonatal death
 - Nasal discharge
- A nasal swab is taken for PCR testing
- Depending on the severity of the virus, treatment can simply be supportive by keeping the animal hydrated; non-steroidal, anti-inflammatory drugs; and antivirals

Slides 13-14: Equine Infectious Anemia

- Virus that is spread by a biting insect, such as a horse fly, that bites an infected animal
- The bite from the infected insect will transfer the virus to a healthy animal
- This disease is rare
- There is no cure; horses who develop this disease will have it for their whole life
- It is diagnosed with a blood test
- Symptoms:
 - Fever
 - Anemia
 - Depression
 - Muscle weakness
 - Edema
- There is no treatment; the horses will need to be isolated for their life cycle or euthanized

Slides 15-17: Equine Influenza (A/Equine/1/Prague 56 [H7N7] and A/Equine/2/Miami 63 [H3N8])

- An RNA virus that is airborne and released into the air as droplets from coughing or snorting

- Horses close to this activity inhale the virus
- Also spread through contaminated surfaces, such as:
 - Stalls
 - Feed
 - Water sources
 - Grooming equipment
 - Transportation vehicles
- Symptoms:
 - Nasal discharge
 - Fever up to 106° F
 - Slightly enlarged lymph nodes on the neck and around the head
 - Secondary bacterial infections
- Treatment starts with supportive care, including rest and hydration
 - Can also include non-steroidal, anti-inflammatory medication
- Prevent through vaccination

Slides 18-20: Equine Parvovirus-Hepatitis Virus (EqPV-H)

- This virus can be transmitted to a horse through both biological and non-biological means
- Non-biological consists of transmission from one infected horse to another during the fall and spring
 - The reason for this is not known, but, because of the time of year, it may be carried by insects
- Biological transmission can occur through a pregnant mare's serum, equine plasma, and administration of parvovirus-positive (PCR-positive) biologics
- Symptoms:
 - Colic
 - Blindness
 - Staggering
 - Anorexia
 - Jaundice
 - Death within 72 hours
- Supportive care is the only treatment
- There is no vaccine

Slides 21-22: Equine Piroplasmiasis
(Theileria equi, Babesia caballi, T. haneyi)

- This is a protozoa that is transmitted by ticks as well as contaminated blood and medical equipment
- Death occurs 50% of the time
- Symptoms:
 - Fever
 - Weakness
 - Loss of appetite
 - Colic
 - Constipation
 - Labored breathing
 - Anemia
- Treatment starts with official state quarantine for up to two years and high doses of imidocarb dipropionate protocol

Slides 23-25: Equine Protozoal Myeloencephalitis
(Sarcocystis neurona)

- A protozoal infection of the central nervous system caused by Sarcocystis neurona and/or Neospora hughesi
- This disease is spread by infected opossums whose fecal matter contains the protozoa
- The sporocysts are consumed by the horses either off the ground from vegetation or water sources, such as a creek or pond
- These sporocysts travel from the intestines to the central nervous system, where they cause damage
- Symptoms:
 - Weakness
 - Reduced or absence of feeling
 - Alterations of consciousness
 - Muscle atrophy
- Anti-protozoal drugs are the only treatment

Slide 26: Equine Pythiosis (Pythium insidiosum)

- Virus found in grass and stagnant water sources
- Causes lesions anywhere but mainly on the lower parts of the body because these are the areas that are first exposed
- Treat by removing the lesions, chemotherapy, or immunotherapy

Slides 27-29: Equine Viral Arteritis

- Viral disease of animals in the Equidae family
- Symptoms
 - Fever of 106° F
 - Depression
 - Edema: limbs, peri or supraorbital region, scrotum/prepuce (male), mammary glands (female)
 - Abortions
- Transmitted by droplets of respiratory secretions, aborted tissue, and venereal transmission from fresh, frozen, or cooled semen
- It can indirectly be transmitted through contaminated:
 - Clothing
 - Urine
 - Feces
 - Artificial insemination equipment
 - Breeding shed equipment
- Diagnosis comes from observation, laboratory testing, and post-mortem examination
- No treatment available

Slides 30-32: Leishmaniasis
(Leishmania siamensis)

- This is a protozoa that is carried by sandflies; *Leishmania braziliensis* and *Leishmania siamensis* are the most common found in horses
- Cutaneous leishmaniasis causes sores on any part of the body
- These sores will heal on their own, but they will leave a scar
- Visceral leishmaniasis causes systematic disease, which can start with a fever, weight loss, and anemia
- This can then lead to swelling of the spleen, liver, and/or lymph nodes
- Diagnosis is through examination of history, physical exam, and clinical signs
- Horses with the cutaneous form will survive without treatment, but a bad scar will remain
- Horses with the visceral form will die without treatment

- The recommend treatment is sodium stibogluconate given via IV for 10 days, then repeated 30 days later

Slides 33-34: Nocardioform Placentitis

- A bacteria that causes lesions in the placenta
- Carried by mares
- Symptoms:
 - Aborted fetuses
 - Stillbirths
 - Weak premature or mature foals
 - Underweight foals
- Diagnosis is through pathological and microbiological examination of aborted fetuses and/or placenta
- No successful treatment available

Slides 35-36: Pigeon Fever (Ulcerative lymphangitis)

- Bacteria that, in the past, was only found in the southwestern United States
- In recent years, cases have been reported throughout the United States, especially true during droughts
- Three types of symptoms, which are external abscesses, internal infection, and ulcerative lymphangitis
- Diagnosis is through bacterial culture of abscesses and/or ultrasound examination
- Treatment includes cleaning out and treating the external abscesses along with giving antimicrobial therapy for any internal problems

Slides 37-38: Potomac Horse Fever or Equine Neorickettsiosis

- Bacterial infection caused by *Neorickettsia risticii*
- Noninfectious disease
- Symptoms:
 - Fever 107° F 7-10 days prior to diarrhea
 - Depression
 - Swelling of limbs
 - Abortion of fetus due to infection
- Diagnosed by examining fecal matter, blood, and/or aborted fetal tissue
- Treated by administering tetracycline antimicrobials

- Prevention is the best approach through a PHF vaccine

Slides 39-40: Rhodococcus equi

- A pathogen that causes bronchopneumonia in foals that are three weeks old and five months old
- Very rarely shows up in older horses
- This pathogen is naturally found in the soil
- Symptoms include decreased appetite, fever, and difficulty breathing
- Diagnosed by an ultrasound examination of fetus and foal along with a bacterial culture
- No vaccine
- Treated by administering hyperimmune plasma (HIP)

Slides 41-42: Strangles (Streptococcus equi var. equi)

- Bacterial infection
- Highly infectious from horse to horse
- Symptoms:
 - Fever that usually shows up 24-48 hours before other symptoms
 - Trouble swallowing
 - Coughing
 - Wheezing
 - Nasal discharge that is often thick as well as white and yellow
- Diagnosed by examining a nasal wash or swab microscopically
- Treated through supportive care, including hydration and rest
 - Antibiotics can be given, but they prevent horses from developing immunity against this disease
- A vaccine does exist but does not provide full protection

Slides 43-44: Vesicular stomatitis (Vesicular stomatitis virus, subtypes New Jersey and Indiana)

- A viral disease that causes sores on the following locations:
 - Lips
 - Muzzle
 - Nose
 - Tongue

- Ears
- Sheath
- Teats
- Coronary bands
- Diagnosed by a physical exam and laboratory testing of the wounds
- Normally not fatal, but horses may lose weight due to it being painful to eat and/or drink
- Wounds usually heal in 14 days
- Beyond keeping hydrated, there is no treatment

Slides 45-47: Western Equine Encephalomyelitis

- A viral infection
- Transmitted by mosquitoes who bite infected birds before biting horses
- Symptoms
 - Depression
 - Anorexia
 - Fever of 102.5-104.5° F
 - Drowsiness
 - Lack of appetite
 - Convulsions
 - Facial paralysis
 - Weakness of tongue
 - Complete paralysis of limbs on one side
 - Colic
 - Death
- Diagnosed by a veterinarian who will measure antibodies in serum (a component of white blood cells)
- No cure
- Prevention is the only solution; use insect repellents, keep horses in at night, and eliminate any standing water

Slide 48: Foreign Diseases

Slides 49-50: African Horse Sickness

- An insect-borne virus (*Orbivirus*), which, in this case, are midges
 - The biting midges acquire the virus by biting affected horses
- Four clinical types:
 - Pulmonary (Dunkop)
 - Cardiac (Dikkop)
 - Mixed
 - African horse sickness fever
- Diagnosed with a blood test

- Treatment is supportive care
- Vaccination is the only preventative measure

Slides 51-52: Contagious Equine Metritis (Taylorella equigenitalis)

- A venereal disease caused by bacteria
- Transmitted through breeding and AI equipment
- Symptoms include discharge from vagina, infertility, and abortions
- Can be transferred from mare to foal
- Treatment includes washing the males and females prior to mating with a disinfecting soap
- Cleaning and disinfecting breeding equipment
- Applying an antibiotic ointment to the area for five days straight prior to breeding
- No vaccine

Slides 53-54: Dourine (Trypanosoma equiperdum)

- A parasitic venereal disease caused by the flagellate protozoan *Trypanosoma equiperdum*
- Transmitted by breeding and can be passed on to foals
- Diagnosis comes from isolating the horse for six months
- Samples from the vagina area, mammary glands, and lymph nodes are also used in diagnosis
- No vaccine
- Prevent by keeping the environment and equipment clean and sanitary

Slides 55-56: Equine piroplasmosis (T. equi, B. caballi, T. haneyi)

- A blood-borne protozoal infection
- Transmitted through ticks and equipment that has not been cleaned and sterilized
- Can infect foals
- Symptoms
 - Fever
 - Weight loss
 - Colic
 - Labored breathing
 - Anemia

- Lack of appetite
- Sudden death
- Treatment is long-term quarantine or euthanasia
- Prevention is the best approach; keep equipment clean and fields mowed

Slides 57-58: Epizootic Lymphangitis

- A contagious disease of the skin and lymphatic vessels as well as the nodes of the limbs, neck, and chest
- There are skin, ocular, and respiratory forms
- Can have more than one form at a time
- The only prevention is keeping the environment clean and equipment sterilized
- Horses with this disease should be euthanized
- No vaccine

Slides 59-60: Glanders (*Burkholderia mallei*)

- A bacterial disease transmitted through direct contact with other horses
- Can also be passed by consuming contaminated food and/or water along with touching contaminated surfaces, such as stalls
- Three forms exist, which include nasal, cutaneous, and pulmonary
- Symptoms depend on the area of infection
- No cure
- No vaccine
- Diagnosed through observation and clinical tests
- If the horse has this disease, it must be euthanized
- Prevent by keeping the area clean and sterilized as well as allowing sunlight in the area
- Sun exposure kills the bacteria

Slide 61: Equine Diseases That Can Infect Humans

Slides 62-63: Anthrax (*Bacillus anthracis*)

- Anthrax is rare in the United States, but in other areas of the world, anthrax is more common

- This disease is found naturally in the environment
- Vaccination is the best prevention
- There is no treatment
- Horses that acquire this disease die
- Humans get anthrax by inhaling spores, ingesting spores, or getting them in a cut
- Symptoms:
 - Fever
 - Chills
 - Severe colic
 - Weakness
 - Bloody diarrhea

Slides 64-65: Ringworm (*Microsporum equinum*, *M. gypseum*, *T. equinum*)

- Caused by a fungus in the environment
- Transferred to animals and humans through physical contact
- Symptoms:
 - Circular loss of hair
 - Dehydration
 - Dry, red skin
 - Depression
- Not all horses will show symptoms
- Treatment starts with shaving the area and washing the skin with an anti-fungal shampoo
- It is very important to make sure the area is dry after shampooing because the fungus loves moist areas

Slides 66-67: Brucellosis (*Brucella abortus*)

- A bacterial disease that is transferred through contact with infected animals and equipment
- Causes “poll evil,” which is the inflammation of withers (the highest point of the horse’s back) and/or poll (area behind the horse’s ears)
- Swelling can be severe enough to burst, which will appear as pus
- Can reduce the horse’s ability to reproduce and cause a mare to abort a fetus
- Antibiotics are given, but once a horse gets brucellosis, it typically remains in the body

Slides 68-70: West Nile encephalitis

- While humans do not directly get West Nile virus, they do contract it from infected mosquitoes
- Mosquitoes get West Nile virus by biting an animal that already has the virus before transferring it when the infected mosquito bites
- Symptoms:
 - Depression
 - Difficulty walking
 - Convulsions
 - Paralysis
- Horses may not show symptoms
- Results of this virus can be mild or as severe as death
- Prevent through vaccination and control of mosquitoes

Slides 71-72: Salmonellosis (various Group A, B, and C salmonellae)

- *Salmonella* is a bacteria that is spread through contaminated food, water, or environment
- Contamination comes from exposure to poop from infected animals
- The main symptom is diarrhea, which can be life threatening due to dehydration
- Horses may not show any symptoms
- Treat by keeping the horse hydrated and providing an electrolyte replacement

Slide 73: Rabies

- A neurological disease that is spread through a bite of an infected animal
- Rabies in horses is very rare but can happen
- Symptoms include a change in behavior, such as aggression
- Prevent by vaccinating

Slides 74-75: Leptospirosis (*Leptospira* spp.)

- A bacterial disease that is found in animal's urine
- Transmitted through exposure to
 - Urine
 - Soil
 - Water
 - Bedding

- This bacteria can live outside the body for weeks to months
- Treatment is through antibiotics
- Symptoms:
 - Cloudy or inflamed eyes
 - Stillbirths
 - Abortions
 - Fever
 - Kidney failure

Slides 76-77: Cryptosporidiosis (*Cryptosporidium* spp.)

- A parasitic disease that is caused by *Cryptosporidium*
- Transmitted through swallowing poop
- Older horses normally do not get this disease due to their stronger immune system
- Pre-weaned foals more frequently develop this disease, which shows up as diarrhea
- Treatment for this disease is only supportive
- Keep the animal hydrated and supplement feed as needed to improve the immune system

Slide 78: Parasites

- Come in two types, which are internal and external
- Internal parasites are those that split their life cycle between existing outside the body and inside the host
- External parasites are those that only live outside the body

Slide 79: Internal Parasites

Slides 80-82: Large Strongyles

- Three species affect horses, which include *Strongylus vulgaris*, *Strongylus edentatus*, and *Strongylus equinus*
- Found on pasture
- Ingested as the horse grazes
- *Strongylus vulgaris* larvae swim up blades of grass in water droplets
- Once eaten, the larvae make their way to the large intestines and then to blood vessels

- While in the blood vessels, they can burrow into the walls of arteries, blocking blood flow
- *Strongylus vulgaris* is the most dangerous of the large Strongyles species
- The remaining two species of this parasite move from the large intestine to the liver and back
- Large strongyles are no longer a major concern in the equine industry due to treatment strategies that occurred decades ago
- Diagnosed through observation and looking for the parasite's eggs and larvae in a fecal sample
- Horses of all ages can be affected
- Treatment is deworming

Slides 83-85: Small Strongyles

- Different species exist and the transmission is the same as with the large strongyles
- Larvae live on grass blades
- As horses eat the grass, they consume the larvae
- The larvae make their way to the digestive tract and stay there
- While in the digestive tract, they normally burrow into the walls of the colon and cecum
- When this happens, the parasite has "encysted"
- This parasite can remain in the colon and/or cecum for up to two years
- When the environment is right, the small strongyles will mature and produce eggs
- If a horse has ever grazed, it is assumed that the equine has some level of small strongyles
- Symptoms or problems caused by this parasite are rare
- Affect all ages of horses
- Diagnosed through fecal testing
- Resistant to deworming, meaning there is no treatment

Slides 86-89: Ascarids

- Known as *Parascaris equorum* or roundworm
- Attacks younger foals, and weanlings (a foal being weaned)
- Eggs are picked up from surfaces such as troughs, buckets, and even the udder of the mother (mare)
- Once a foal consumes the eggs, the larvae hatch in the small intestines
- Larvae then move from the small intestine to the liver and then to the lungs
- Once in the lungs, they are coughed up, swallowed, and end up back in the small intestine
- The larvae mature in the small intestine and lay eggs
- Diagnosis comes from fecal testing
- While there are still some dewormers that treat the animal for this parasite, many dewormers no longer work due to overuse

Slides 90-92: Tapeworms

- Three species of tapeworm found in horses with the most common one being *Anoplocephala perfoliata*
- This parasite is unique in that it has two hosts
- The first host is the oribatid mite, which eats tapeworm eggs
- The tapeworm eggs hatch and develop into larvae inside the oribatid mite
- As horses graze on pasture, they consume the oribatid mite
- At this point, the larvae end up in the small intestine of the horse
- Adult tapeworms move through the small intestine until they reach the ileocecal junction
- This junction is where the last part of the small intestine joins the cecum
- At this junction, the tapeworm attaches to the gut wall where they cause inflammation of the intestinal tract
- They can cause colic, ulcers, and even intestinal obstruction if the infestation is heavy
- Can be found in horses of all ages

- Fecal examination is required for proper diagnosis
- Treat by deworming

Slides 93-94: Pinworms

- Pinworms (*Oxyruris equi*) are consumed by horses as they graze
- While this parasite causes hair loss around the tail due to it rubbing its butt on everything, it does not normally cause a lot of internal damage
- Adult pinworms travel out of the anus to lay eggs on the host's backside
- The eggs cause itching and irritation
- The horse responds to this by rubbing its butt and tail on anything to relieve the irritation
- Rubbing dislodges the eggs, starting the process again
- Infestation is determined by fecal examination and observing behavior
- Treat by deworming

Slides 95-98: Bots

- Bots are commonly called "stomach bots," which are both internal and external parasites
- Known as *Gasterophilus intestinalis*
- Adult bots are external pests that look like bees
- They lay little, yellow, oval-shaped eggs on horses' coats
- These eggs are normally found in areas that the horse can bite or lick, such as the lower leg region
- The licking and/or biting stimulates the eggs to hatch
- The larvae burrow into the horse's gums where they will remain for four weeks
- After four weeks, the parasite moves into the stomach where it finds home in the stomach lining
- The parasite will remain in the stomach lining for nine months
- After nine months, the parasite leaves the horse's body through the fecal matter
- Results can be minor oral lesions and damage to the stomach lining

- This damage is minor and normally does not cause serious health issues
- Fecal test and observation are required for diagnosis
- Dewormer can be given but not normally
- Setting up ways of controlling bots is more common, which can include fly strips

Slides 99-101: Threadworms

- Known as *Strongyloides westeri*
- Normally only attacks foals but can be found in horses up to 8-10 months old
- Once the horse reaches this age, their immune system is strong enough to defend against threadworms
- Foals can get threadworm three ways
- The first exposure comes from the mare's milk, which can carry threadworm larvae
- Foals can have larvae on their coat that break through the skin
- Foals can pick up threadworms from their environment
- Once in the foal's body, the larvae move to the lungs and then to the small intestines
- Once in the small intestines, the threadworms can cause diarrhea
- If the condition is serious enough, the foal will become dehydrated
- Deworming normally prevents problems from threadworms
- Diagnosed through fecal examination

Slide 102: External Parasites

Slide 103: Ticks

- Ticks are not usually a problem
- They suck the blood of horses
- Once full, they fall off the horse's body
- Examining horses when they return from grazing in tall grass is the most effective way to keep ticks off horses

Slides 104-105: Biting Flies

- Biting flies that normally attack horses include:
 - Horn flies
 - Horse flies
 - Deer flies

- Sometimes black flies
- This external parasite bites the animal and sucks their blood
- Biting flies do not cause damage or excessive blood loss
- While they do not cause damage or illness, they do annoy the horse
- Fly strips are used to control the flies

Slides 106-107: Mange (Demodex equi, Psoroptes equi)

- Mange comes from a mite that causes skin diseases known as:
 - Mange
 - Barn itch
 - Scab
 - Scabies
- Horses are exposed to the mite through direct contact with horses who already have this mite or equipment used on and around horses with this skin disease
- Horses with mange rub against anything to get relief from the itching
- This can cause the skin to become inflamed, hair loss, and sores
- Treated by applying a lime-sulfur solution
- This treatment can be in the form of a dip, spray, or sponge-on application

Slides 108-110: Lice

- There are two types of lice that attack horses, biting lice and blood-sucking lice
- Blood-sucking lice is the most dangerous because they can cause major blood loss
- Biting lice can be found anywhere on the body
- Sucking lice can be found on the
 - Head
 - Neck
 - Back
 - Inner thigh
- It is more common to develop a problem with lice during the winter months because the hair on the horse is longer to protect them from the cold temperatures
- Lice can hide in the long hairs
- Spread from animal to animal by contact

- Due to horses spending more time in the barns, lice can very quickly spread to every animal in the barn
- Diagnosed by observation
- Treated with a spray that contains pyrethrins

Slides 111-113: Mosquitoes

- Mosquito problems begin with standing water or a wet season
- Both these environments give female mosquitoes the perfect area to lay their eggs
- Only females feed on animals and need blood to continue their life cycle
- Female mosquitoes will feed any time but will swarm horses during dry periods
- A mosquito bite causes irritation
- When possible, prevention is the best approach
- Prevention involves emptying buckets and keeping water from standing in the horse's environment
- There are several types of treatment beyond using an insect repellent, such as pyrethroids
- Fly masks and fly wraps can keep mosquitoes away from the horse's skin
- Additives to feed is another preventative approach
 - These additives include garlic and/or apple cider vinegar, which is supposed to put an aroma out that repels mosquitoes
- Keeping horses in the barns during dawn and dusk hours is another way of reducing the exposure to the pest because mosquitoes are known to feed during dawn and dusk hours

Horse Diseases and Parasites

Directions: As you watch the slide presentation, fill in the blanks below.

1. How To Tell if a _____
 - When it comes to determining if a horse is sick, it is important to _____ the _____
 - This _____ of _____ can mean _____ for the animal
 - _____ can _____ very _____ if _____ properly
2. _____ Diseases
 - Because it is not uncommon for _____, _____ are _____ and _____
 - A _____ is _____ that _____ can _____ in _____
 - A _____ is _____ that equine can _____
3. _____ Equine _____
4. _____ (Blastomyces dermatitidis)
 - A _____ that _____ - _____ and _____
 - While _____ found _____, it can _____
 - Can also _____, which _____ a _____
 - _____ is an _____
5. _____ (Clostridium botulinum, types A, B, C, and D)
 - Botulism is _____ by _____ the _____
 - This is a _____ that _____ the _____

- When this happens, the horse's _____
_____ and _____, causing the animal to
_____ from _____ of _____
- Horses can _____
1) _____ with the _____
2) _____ contaminated
_____ the _____
3) By _____ either as a _____

- _____ can occur in _____
1) A _____ can be given, but it is very
expensive
2) _____ the _____ by not _____
horses to _____ / _____ that has been

3) _____ for botulism

6. _____

- _____ caused by an _____, which
_____ in
horses
- _____ by _____ of _____
_____ a _____ with the _____
- _____:
 - _____ up to _____ F
 - _____
 - Depression
 - _____
 - Colic
 - _____ cell _____
- _____ is _____ that entails
_____ the _____

7. _____

- _____ that is _____ from _____
_____ by _____,
_____ (_____), and/or

- _____:
 - Fever

- _____
- Neonatal death
- _____
- A _____ is taken for _____
- Depending on the severity of the virus, _____ can simply be _____ by keeping the animal hydrated; _____ - _____, _____ - _____ drugs; or _____

8. _____
- _____ that is _____ by a _____, such as a _____, that _____ an _____
 - The _____ the _____ will _____ the _____ to a _____
 - This disease is _____
 - There is _____; horses that develop this disease will _____ for their whole _____
 - It is _____ with a blood _____
 - _____:
 - _____
 - Anemia
 - _____
 - Muscle weakness
 - _____
 - There is _____; the horses will need to be _____ their _____ or _____

9. _____ (A/Equine/1/Prague 56 [H7N7] and A/Equine/2/Miami 63 [H3N8])
- An _____ that is _____ and released into the air as _____ from _____ or _____
 - Horses _____ this _____ the virus
 - Also _____ contaminated _____, such as:
 - Stalls
 - _____
 - Water sources
 - _____
 - Transportation vehicles

- _____:
 - Nasal discharge
 - _____ up to _____ F
 - Slightly enlarged lymph nodes on the neck and around the head
 - _____
- _____ starts with _____, including _____ and _____
 - Can also include _____, _____
- Prevent through _____

10. _____ - _____ (EqPV-H)

- This _____ can be _____ to a _____ both _____ and non-_____ means
- _____ consists of _____ from _____ to _____ the _____ and _____
 - The _____ for this is _____, but, because of the _____, it _____ be _____ by _____
- _____ can occur _____ a _____, equine _____, and _____ (PCR-positive) _____
- _____:
 - _____
 - Blindness
 - Staggering
 - Anorexia
 - _____
 - _____
- _____ is the _____
- There is _____

11. _____ (Theileria equi, Babesia caballi, T. haneyi)

- This is a _____ that is _____ as well as _____ blood and _____
- _____ occurs _____ of the _____
- Symptoms:
 - Fever
 - Weakness
 - _____ of _____
 - _____
 - Constipation
 - Labored breathing
 - _____
- Treatment starts with _____ state quarantine for up to two _____ and high doses of _____ dipropionate protocol

12. _____ Protozoal Myeloencephalitis (_____ neurona)

- A _____ infection of the _____ nervous system _____ by *Sarcocystis* _____ and/or _____ *hughesi*
- This _____ is spread by _____ opossums whose _____ matter contains the _____
- The sporocysts are _____ by the _____ either off the _____ from vegetation or _____ sources, such as a _____ or pond
- These _____ the _____ the _____, where they _____
- _____:
 - _____
 - Reduced or absence of feeling
 - _____
 - Muscle atrophy
- _____ - _____ are the _____

13. _____ (Pythium insidiosum)

- _____ in _____ and _____ sources
- _____ anywhere but mainly on the _____ the _____ because these are the _____ that are _____

- _____ by _____ the _____,
_____, or _____

14. _____

- _____ of _____ the

- _____:
 - _____ F
 - Depression
 - _____: limbs, peri or supraorbital region,
_____ (male), mammary glands
(female)
 - _____
- _____ by _____ of
_____, aborted tissue,
and venereal transmission from _____, _____, or _____

- It can _____ be _____
through _____:
 - _____
 - Urine
 - _____
 - Artificial insemination equipment
 - _____
- _____ comes from _____,
_____, and post-mortem examination
- _____ available

15. _____ (Leishmania siamensis)

- This is a _____ that is _____ by
_____; _____
_____ are the most common found _____
- _____ causes
_____ on _____ of the _____
- These _____ will _____ on _____, but they will _____ a

- _____ causes
_____, which can
_____ a _____, weight loss, and

- This can then _____ the
_____, _____, and/or _____
- _____ is _____ examination of
_____, _____, and _____
- _____ with the _____ will _____
_____, but a bad scar will remain
- _____ with the _____ will _____

- The _____ is _____
_____ given via _____, then

16. _____
- A _____ that causes _____ in the _____
 - _____
 - _____:
 - _____
 - Stillbirths
 - _____
 - Underweight foals
 - _____ is through _____ and
_____ of
_____ and/or _____
 - _____ successful _____ available

17. _____ (Ulcerative lymphangitis)
- _____ that, in the _____, was _____ in
the _____
 - In _____ years, _____ have been _____
_____ the _____,
especially _____
 - _____ of _____, which are
_____,
_____, and

 - _____ is through _____
_____ of _____ and/or

 - _____ includes _____ and
_____ the _____

_____ along with _____
 _____ for any _____

18. _____ or Equine Neorickettsiosis

- _____ caused by *Neorickettsia risticii*
- _____
- _____:
 - _____ F _____ - _____ to _____
 - Depression
 - _____
 - Abortion of fetus due to infection
- _____ by _____, _____, and/or _____
- _____ by administering _____
- _____ is the best approach _____ a _____

19. _____

- A _____ that causes _____ that are _____ and _____
- Very _____ up _____
- This _____ is _____ the _____
- _____ include _____, fever, and _____
- _____ by _____ of _____ and foal along _____ a _____
- _____
- _____ by _____ (_____)

20. _____ (Streptococcus equi var. equi)

- _____
- _____ from _____
- _____:

- Fever that usually _____ - _____
- Trouble swallowing
- _____
- Wheezing
- _____ that is _____ as well as _____
- _____ by _____ a _____ or _____
- _____ through _____, _____ and _____
 - _____ can be given, but they _____ from _____ this _____
- A _____ does _____ but _____

21. _____ (Vesicular stomatitis virus, subtypes New Jersey and Indiana)

- A _____ that _____ the following locations:
 - _____
 - Muzzle
 - _____
 - Tongue
 - _____
 - Sheath
 - _____
 - Coronary bands
- _____ a _____ and _____ of _____
- _____, but horses _____ due to it being _____ and/or _____
- _____ usually _____
- Beyond _____, there is _____

22. _____

- A _____
- _____ who _____
_____ before biting horses
- _____:
 - Depression
 - Anorexia
 - _____ of _____ - _____ F
 - Drowsiness
 - _____
 - Convulsions
 - _____
 - Weakness of tongue
 - _____ of _____
 - _____
 - Colic
 - _____
- _____ a _____ who will
_____ (a component of
white blood cells)
- _____
- _____ is the _____;
_____, keep horses in at night, and
_____ any _____

23. _____

24. _____

- An _____ - _____ (Orvivirus), which, in this case, _____

 - The _____ the _____ by

- _____:
 - _____ (_____)
 - _____ (_____)
 - _____
 - _____
- _____ with a _____
- _____ is _____
- _____ is the _____

25. _____ (Taylorella equigenitalis)

- A _____ caused _____
- _____ through _____
- _____ include _____, infertility, and _____
- _____ be _____ from _____ to _____
- _____ includes _____ the _____ to _____ a _____
- _____ and _____
- _____ an _____ the _____ to _____
- _____

26. _____ (Trypanosoma equiperdum)

- A _____ the _____
- _____ by _____ and can be _____ to _____
- _____ comes from _____ the _____ for _____
- _____ the _____, _____, and _____ are also used in diagnosis
- _____
- _____ by _____ the _____ and _____

27. _____ (T. equi, B. caballi, T. haneysi)

- A _____ - _____
- _____ through _____ and _____ that has _____ and _____
- _____ infect _____
- _____
 - _____

- Weight loss
- _____
- Labored breathing
- _____
- Lack of appetite
- _____
- _____ is _____ - _____
_____ or _____
- _____ is the _____; _____
_____ and _____

28. _____

- A _____ of the _____
_____ as well as the nodes of the
_____, _____, and _____
- There are _____, _____, and _____ forms
- Can _____ than _____ at _____
- The only _____ is keeping the _____
_____ and _____
- _____ with this _____ be

- _____

29. _____ (Burkholderia mallei)

- A _____ through
_____ with _____
- Can also be _____
_____ and/or _____ with touching
_____, such as _____
- _____ exist, which include _____,
and _____
- _____ the _____

- _____
- _____
- Diagnosed through _____ and _____

- If the _____ has this _____, it must _____

- _____ by _____ the _____ and _____ as well as _____ the _____
- _____ the _____

30. Equine Diseases That Can _____

31. _____ (Bacillus anthracis)

- _____ is _____ in the _____, but in _____ of the _____, _____ more _____
- This _____ is _____ the _____
- _____ is the best _____
- There is no treatment
- Horses that acquire this disease die
- _____ by _____, _____, or _____ a _____
- _____:
 - Fever
 - _____
 - Severe colic
 - _____
 - Bloody diarrhea

32. _____ (Microsporium equinum, M. gypseum, T. equinum)

- _____ a _____ the _____
- _____ and _____
- _____:
 - _____ of _____
 - Dehydration
 - _____, red skin
 - _____
- Not all horses will show symptoms
- _____ with _____ the _____ and _____ the _____ an _____ - _____

- It is very important to make sure the area is dry after shampooing because the _____

33. _____ (Brucella abortus)

- A _____ that is
_____ through _____ with
_____ and _____
- _____ “_____,” which is the
_____ (the _____
_____ the _____) and/_____
(_____ the _____)
- _____ can be _____ to _____,
which will _____
- Can _____ the _____ to
_____ and _____ a _____
a _____
- _____ are _____, _____ once a _____
_____, it _____
_____ the _____

34. _____

- While _____ get _____
virus, they do _____ it _____

- _____ an _____ that _____ the
_____ before transferring it when the infected mosquito bites
- Symptoms:
 - _____
 - Difficulty walking
 - _____
 - _____
- Horses may not show symptoms
- _____ of this _____ can be _____ as severe as

- _____ and
_____ of _____

35. _____ (various Group A, B, and C salmonellae)

- _____ is a _____ that is _____ through _____, _____, or _____
- _____ comes from _____ from _____
- The main _____ is diarrhea, which can be _____ to _____
- Horses may not show any symptoms
- _____ by _____ the horse _____ and _____ an _____

36. _____

- A _____ that is _____ a _____ an _____
- _____ in horses is _____ but can happen
- _____ include a _____, such as _____
- _____ by _____

37. _____ (Leptospira spp.)

- A _____ that is _____
- _____
 - _____
 - _____
 - _____
 - _____
- This _____ can _____ the _____ for _____
- _____ is through _____
- _____:
 - _____ or inflamed _____
 - Stillbirths
 - _____
 - Fever
 - _____

38. _____ (Cryptosporidium spp.)

- A _____ that is _____ by _____
- _____ through _____
- _____ normally _____ this _____ to their _____
- _____ - _____ more _____ this _____, which _____ as _____
- _____ for this disease is _____
- Keep the animal _____ and _____ as needed to _____ the _____ system

39. _____

- Come in _____, which are _____
- _____ are those that _____ their _____ between existing _____ the _____ and _____ the _____
- _____ are those that _____ the _____

40. _____

41. _____

- _____ affect horses, which include _____, _____, and _____
- _____ on _____
- _____ as the _____
- _____ of _____
- Once _____, the _____ their _____ to the _____ and then to blood vessels

- While _____ the _____, they can _____
_____ the _____ of _____, _____

- _____ is the _____
_____ of the large Strongyles species
- The _____ of this
parasite _____ the _____ the
_____ and _____
- _____ are _____ a _____
_____ in the equine industry _____ to _____
_____ that _____
- _____ through _____ and looking for the
_____ and _____ in a _____

- _____ of all ages can be _____
- _____ is _____

42. _____

- _____ and the
_____ is the _____ as _____ the

- _____ on _____
- As _____ the _____, they
_____ the _____
- The _____ their _____ the
_____ and _____
- While _____ the _____, they normally
_____ the _____ the _____
and _____
- When this happens, the _____ has
" _____ "
- This _____ can _____ the _____ and/or _____
for _____
- When the _____, the _____
_____ will _____ and _____

- If a _____ has _____, it is _____ that the
_____ has _____ of _____
- _____ or _____ by this
_____ are _____
- _____ of horses

- _____ through _____
- _____, meaning there is _____

43. _____

- _____ as _____ or

- _____, and _____ (a
_____)
- _____ are picked up _____ such as
_____, buckets, and _____ the _____ of the
mother (mare)
- Once a _____ the _____, the _____
_____ the _____
- _____ then _____ the _____
_____ the _____ and _____ to the _____
- _____ the _____, they are _____,
_____, and end up _____ the _____

- The _____ the _____ and

- _____ comes from _____
- While there are _____ that _____ the
_____ this _____, many dewormers _____
_____ due to _____

44. _____

- _____ of tapeworm found _____ with
the _____ one being _____

- This _____ is _____ in that it has _____
- The _____ is the _____, which _____

- The tapeworm _____ and _____ into _____
_____ the _____
- As horses _____, they _____ the

- At this point, the _____ the _____
_____ of the horse

- _____ through the _____
_____ they _____ the _____

- This junction is _____ the _____ of the _____
_____ the _____
- _____ this _____, the _____ the
_____ where they _____
the _____
- Can be _____ of all _____
- Fecal examination is required for proper diagnosis
- Treat by deworming

45. Pinworms

- Pinworms (_____ *equi*) are _____ by horses as they _____
- While this _____ causes hair _____ around the _____ due to it _____ its butt on _____, it does not _____ cause a lot of _____ damage
- Adult _____ travel out of the _____ to lay _____ on the _____ backside
- The _____ cause itching and _____
- The horse _____ to this by _____ its butt and _____ on anything to _____ the irritation
- _____ dislodges the _____, starting the _____ again
- Infestation is _____ by fecal _____ and observing _____
- Treat by _____

46. _____

- _____ are _____ “ _____,” which are _____
- _____ as _____
- Adult bots are external pests that look like bees
- _____, yellow, _____ - _____ eggs on the _____
- These _____ are normally _____ that the _____ or _____, such as the _____
- The _____ and/or _____ the _____

- The _____ into the _____ where they _____ for _____
- _____, the _____ the _____ it _____ the _____
- The parasite _____ the _____
- _____, the _____ the horse's _____ through the _____
- _____ can be _____ and _____ the _____
- This _____ is _____ and _____
- _____ and _____ are _____ for _____
- _____ can be _____
- Setting up _____ is _____, which can _____

47. _____

- Known as _____
 - _____ only _____ but can be _____ in _____ - _____
 - Once the _____, their immune _____ is _____ to _____
 - _____ can _____
1. The _____ exposure comes from the _____, which can _____
 2. Foals can have _____ their _____ that _____ the _____
 3. Foals can _____ threadworms _____ their _____
- Once _____ the _____, the _____ the _____ and _____ the _____
 - _____ the _____, the _____ can _____
 - If the condition is _____ enough, the _____ will _____

- _____ normally _____ from threadworms
- _____ through _____

48. _____

49. _____

- Ticks are _____ usually a _____
- They _____ the _____ of horses
- _____, they _____ the animal's body
- _____ when they _____
_____ in _____ is the _____
_____ way to keep ticks off horses

50. _____

- _____ that normally attack horses include:
 - _____
 - _____
 - _____
 - Sometimes _____
- This _____ the animal and
_____ their _____
- Biting flies do not cause damage or excessive blood loss
- While they do not cause damage or illness, they _____ the _____
- _____ are used to _____ the _____

51. _____ (Demodex equi, Psoroptes equi)

- _____ a _____ that _____
_____ known as:
 - _____
 - _____
 - _____
 - _____
- Horses are _____ the mite _____
_____ with horses who already have this mite _____
_____ on and around _____ this

- Horses _____ to
_____ from the itching
- This can _____ the _____ to become _____,
_____, and _____

- _____ by applying a _____ - _____
- This treatment can be in the _____ a _____, _____, or _____ -on _____

52. _____

- There are _____ of lice that attack horses, _____
- _____ - _____ lice is the _____ because they can _____
- _____ can be _____ on the _____
- Sucking lice can be found on the
 - _____
 - Neck
 - _____
 - Inner thigh
- It is _____ common to _____ a problem with _____ during the _____ months because the _____ on the _____ is longer to _____ them from the _____ temperatures
- Lice can _____ in the long _____
- Spread from _____ to animal by _____
- Due to _____ spending more _____ in the _____, lice can _____ quickly spread to _____ animal in the _____
- Diagnosed by _____
- Treated with a _____ that contains _____

53. _____

- Mosquito _____ with _____ a _____
- Both these environments _____ the _____ to _____ their _____
- _____ on animals and _____ to _____
- _____ will _____ will _____
- A mosquito _____ irritation
- When possible, _____ is the _____
- _____ emptying buckets and _____ in the horse's environment

- There are _____ of treatment _____
_____ an _____, such _____

- _____ and _____ can _____
_____ from the _____

- _____ to _____ is _____
_____ approach
 - These additives _____ and/or
_____, which is supposed to _____
_____ that _____
- _____ the _____
_____ and _____ is another way of reducing the exposure to the
pest because _____ are known to _____

Horse Diseases and Parasites – Answer Key

Directions: As you watch the slide presentation, fill in the blanks below.

1. How To Tell if a Horse Is Sick
 - When it comes to determining if a horse is sick, it is important to understand the horse's normal behavior
 - This observation of individual horse behavior can mean life or death for the animal
 - Many equine diseases can cause death very quickly if not addressed properly
2. Domestic Versus Foreign Diseases
 - Because it is not uncommon for horses to travel abroad, diseases are divided into domestic and foreign
 - A domestic disease is one that equines can get in North America
 - A foreign disease is one that equines can pick up abroad
3. Domestic Equine Diseases
4. Blastomycosis (Blastomyces dermatitidis)
 - A fungal disease that attacks multi-body systems and lesions
 - While normally found in dogs, it can appear in horses
 - Can also cause respiratory problems, which leads to a diagnosis
 - Treatment is an antifungal medication
5. Botulism (Clostridium botulinum, types A, B, C, and D)
 - Botulism is caused by toxins produced by the bacteria
 - This is a neurotoxin that paralyzes the diaphragm
 - When this happens, the horse's diaphragm stops expanding and contracting, causing the animal to die from lack of oxygen
 - Horses can get botulism three ways
 - 1) Consuming hay or feed contaminated with the fungus
 - 2) Consuming hay or feed contaminated with the toxins
 - 3) By entering wounds either as a fungus or toxin
 - Treatment can occur in three ways
 - 1) A hyperimmune plasma can be given, but it is very expensive
 - 2) Reduce the exposure by not exposing horses to hay and/or feed that has been rained on

3) Vaccinating horses for botulism

6. Coronavirus

- Viral disease caused by an RNA virus, which causes gastrointestinal disease in horses
- Spread by ingestion of fecal matter from a horse infected with the disease
- Symptoms:
 - Fever up to 105° F
 - Lack of appetite
 - Depression
 - Laying down
 - Colic
 - Low white blood cell count
- Treatment is supportive care that entails keeping the animal hydrated

7. Equine Herpesvirus

- A virus that is spread from horse to horse by nasal discharge, aerosol discharge (sneezing), and/or contaminated surfaces
- Symptoms:
 - Fever
 - Late-term abortion
 - Neonatal death
 - Nasal discharge
- A nasal swab is taken for PCR testing
- Depending on the severity of the virus, treatment can simply be supportive by keeping the animal hydrated; non-steroidal, anti-inflammatory drugs; or antivirals

8. Equine Infectious Anemia

- Virus that is spread by a biting insect, such as a horse fly, that bites an infected animal
- The bite from the infected insect will transfer the virus to a healthy animal
- This disease is rare
- There is no cure; horses that develop this disease will have it for their whole life
- It is diagnosed with a blood test
- Symptoms:
 - Fever
 - Anemia
 - Depression
 - Muscle weakness
 - Edema
- There is no treatment; the horses will need to be isolated for their life cycle or euthanized

9. Equine Influenza (A/Equine/1/Prague 56 [H7N7] and A/Equine/2/Miami 63 [H3N8])

- An RNA virus that is airborne and released into the air as droplets from coughing or snorting
- Horses close to this activity inhale the virus
- Also spread through contaminated surfaces, such as:
 - Stalls
 - Feed
 - Water sources
 - Grooming equipment
 - Transportation vehicles
- Symptoms:
 - Nasal discharge
 - Fever up to 106° F
 - Slightly enlarged lymph nodes on the neck and around the head
 - Secondary bacterial infection
- Treatment starts with supportive care, including rest and hydration
 - Can also include non-steroidal, anti-inflammatory medication
- Prevent through vaccination

10. Equine Parvovirus-Hepatitis Virus (EqPV-H)

- This virus can be transmitted to a horse through both biological and non-biological means
- Non-biological consists of transmission from one infected horse to another during the fall and spring
 - The reason for this is not known, but, because of the time of year, it may be carried by insects
- Biological transmission can occur through a pregnant mare's serum, equine plasma, and administration of parvovirus-positive (PCR-positive) biologics
- Symptoms:
 - Colic
 - Blindness
 - Staggering
 - Anorexia
 - Jaundice
 - Death within 72 hours
- Supportive care is the only treatment
- There is no vaccine

11. Equine Piroplasmiasis (Theileria equi, Babesia caballi, T. haneyi)

- This is a protozoa that is transmitted by ticks as well as contaminated blood and medical equipment
- Death occurs 50% of the time
- Symptoms:
 - Fever

- Weakness
- Loss of appetite
- Colic
- Constipation
- Labored breathing
- Anemia
- Treatment starts with official state quarantine for up to two years and high doses of imidocarb dipropionate protocol

12. Equine Protozoal Myeloencephalitis (*Sarcocystis neurona*)

- A protozoal infection of the central nervous system caused by *Sarcocystis neurona* and/or *Neospora hughesi*
- This disease is spread by infected opossums whose fecal matter contains the protozoa
- The sporocysts are consumed by the horses either off the ground from vegetation or water sources, such as a creek or pond
- These sporocysts travel from the intestines to the central nervous system, where they cause damage
- Symptoms:
 - Weakness
 - Reduced or absence of feeling
 - Alterations of consciousness
 - Muscle atrophy
- Anti-protozoal drugs are the only treatment

13. Equine Pythiosis (*Pythium insidiosum*)

- Virus found in grass and stagnant water sources
- Causes lesions anywhere but mainly on the lower parts of the body because these are the areas that are first exposed
- Treat by removing the lesions, chemotherapy, or immunotherapy

14. Equine Viral Arteritis

- Viral disease of animals in the *Equidae* family
- Symptoms:
 - Fever of 106° F
 - Depression
 - Edema: limbs, peri or supraorbital region, scrotum/prepuce (male), mammary glands (female)
 - Abortions
- Transmitted by droplets of respiratory secretions, aborted tissue, and venereal transmission from fresh, frozen, or cooled semen
- It can indirectly be transmitted through contaminated:

- Clothing
- Urine
- Feces
- Artificial insemination equipment
- Breeding shed equipment
- Diagnosis comes from observation, laboratory testing, and post-mortem examination
- No treatment available

15. Leishmaniasis (Leishmania siamensis)

- This is a protozoa that is carried by sandflies; *Leishmania braziliensis* and *Leishmania siamensis* are the most common found in horses
- Cutaneous leishmaniasis causes sores on any part of the body
- These sores will heal on their own, but they will leave a scar
- Visceral leishmaniasis causes systematic disease, which can start with a fever, weight loss, and anemia
 - This can then lead to swelling of the spleen, liver, and/or lymph nodes
- Diagnosis is through examination of history, physical exam, and clinical signs
- Horses with the cutaneous form will survive without treatment, but a bad scar will remain
- Horses with the visceral form will die without treatment
- The recommended treatment is sodium stibogluconate given via IV for 10 days, then repeated 30 days later

16. Nocardioform Placentitis

- A bacteria that causes lesions in the placenta
- Carried by mares
- Symptoms:
 - Aborted fetuses
 - Stillbirths
 - Weak premature or mature foals
 - Underweight foals
- Diagnosis is through pathological and microbiological examination of aborted fetuses and/or placenta
- No successful treatment available

17. Pigeon Fever (Ulcerative lymphangitis)

- Bacteria that, in the past, was only found in the southwestern United States
- In recent years, cases have been reported throughout the United States, especially true during droughts
- Three types of symptoms, which are external abscesses, internal infection, and ulcerative lymphangitis
- Diagnosis is through bacterial culture of abscesses and/or ultrasound examination

- Treatment includes cleaning out and treating the external abscesses along with giving antimicrobial therapy for any internal problems

18. Potomac Horse Fever or Equine Neorickettsiosis

- Bacterial infection caused by *Neorickettsia risticii*
- Noninfectious disease
- Symptoms:
 - Fever 107° F 7-10 days prior to diarrhea
 - Depression
 - Swelling of limbs
 - Abortion of fetus due to infection
- Diagnosed by examining fecal matter, blood, and/or aborted fetal tissue
- Treated by administering tetracycline antimicrobials
- Prevention is the best approach through a PHF vaccine

19. Rhodococcus equi

- A pathogen that causes bronchopneumonia in foals that are three weeks old and five months old
- Very rarely shows up in older horses
- This pathogen is naturally found in the soil
- Symptoms include decreased appetite, fever, and difficulty breathing
- Diagnosed by an ultrasound examination of fetus and foal along with a bacterial culture
- No vaccine
- Treated by administering hyperimmune plasma (HIP)

20. Strangles (Streptococcus equi var. equi)

- Bacterial infection
- Highly infectious from horse to horse
- Symptoms:
 - Fever that usually shows up 24-48 hours before other symptoms
 - Trouble swallowing
 - Coughing
 - Wheezing
 - Nasal discharge that is often thick as well as white and yellow
- Diagnosed by examining a nasal wash or swab microscopically
- Treated through supportive care, including hydration and rest
 - Antibiotics can be given, but they prevent horses from developing immunity against this disease
- A vaccine does exist but does not provide full protection

21. Vesicular Stomatitis (Vesicular stomatitis virus, subtypes New Jersey and Indiana)

- A viral disease that causes sores on the following locations:
 - Lips
 - Muzzle
 - Nose
 - Tongue
 - Ears
 - Sheath
 - Teats
 - Coronary bands
- Diagnosed by a physical exam and laboratory testing of the wounds
- Normally not fatal, but horses may lose weight due to it being painful to eat and/or drink
- Wounds usually heal in 14 days
- Beyond keeping hydrated, there is no treatment

22. Western Equine Encephalomyelitis

- A viral infection
- Transmitted by mosquitoes who bite infected birds before biting horses
- Symptoms:
 - Depression
 - Anorexia
 - Fever of 102.5°-104.5° F
 - Drowsiness
 - Lack of appetite
 - Convulsions
 - Facial paralysis
 - Weakness of tongue
 - Complete paralysis of limbs on one side
 - Colic
 - Death
- Diagnosed by a veterinarian who will measure antibodies in serum (a component of white blood cells)
- No cure
- Prevention is the only solution; use insect repellents, keep horses in at night, and eliminate any standing water

23. Foreign Diseases

24. African Horse Sickness

- An insect-borne virus (*Orvivirus*), which, in this case, are midges
 - The biting midges acquire the virus by biting affected horses
- Four clinical types:
 - Pulmonary (Dunkop)
 - Cardiac (Dikkop)
 - Mixed
 - African horse sickness fever
- Diagnosed with a blood test
- Treatment is supportive care
- Vaccination is the only preventative measure

25. Contagious Equine Metritis (*Taylorella equigenitalis*)

- A venereal disease caused by bacteria
- Transmitted through breeding and AI equipment
- Symptoms include discharge from vagina, infertility, and abortions
- Can be transferred from mare to foal
- Treatment includes washing the males and females prior to mating with a disinfecting soap
- Cleaning and disinfecting breeding equipment
- Applying an antibiotic ointment to the area for five days straight prior to breeding
- No vaccine

26. Dourine (*Trypanosoma equiperdum*)

- A parasitic venereal disease caused by the flagellate protozoan *Trypanosoma equiperdum*
- Transmitted by breeding and can be passed on to foals
- Diagnosis comes from isolating the horse for six months
- Samples from the vagina area, mammary glands, and lymph nodes are also used in diagnosis
- No vaccine
- Prevent by keeping the environment and equipment clean and sanitary

27. Equine piroplasmiasis (*T. equi*, *B. caballi*, *T. haneyi*)

- A blood-borne protozoal infection
- Transmitted through ticks and equipment that has not been cleaned and sterilized
- Can infect foals
- Symptoms:
 - Fever
 - Weight loss
 - Colic
 - Labored breathing
 - Anemia
 - Lack of appetite
 - Sudden death

- Treatment is long-term quarantine or euthanasia
- Prevention is the best approach; keep equipment clean and fields mowed

28. Epizootic Lymphangitis

- A contagious disease of the skin and lymphatic vessels as well as the nodes of the limbs, neck, and chest
- There are skin, ocular, and respiratory forms
- Can have more than one form at a time
- The only prevention is keeping the environment clean and equipment sterilized
- Horses with this disease should be euthanized
- No vaccine

29. Glanders (Burkholderia mallei)

- A bacterial disease transmitted through direct contact with other horses
- Can also be passed by consuming contaminated food and/or water along with touching contaminated surfaces, such as stalls
- Three forms exist, which include nasal, cutaneous, and pulmonary
- Symptoms depend on the area of infection
- No cure
- No vaccine
- Diagnosed through observation and clinical tests
- If the horse has this disease it must be euthanized
- Prevent by keeping the area clean and sterilized as well as allowing sunlight in the area
- Sun exposure kills the bacteria

30. Equine Diseases That Can Infect Humans

31. Anthrax (Bacillus anthracis)

- Anthrax is rare in the United States, but in other areas of the world, anthrax is more common
- This disease is found naturally in the environment
- Vaccination is the best prevention
- There is no treatment
- Horses that acquire this disease die
- Humans get anthrax by inhaling spores, ingesting spores, or getting them in a cut
- Symptoms:
 - Fever
 - Chills
 - Severe colic
 - Weakness
- Bloody diarrhea

32. Ringworm (Microsporum equinum, M. gypseum, T. equinum)

- Caused by a fungus in the environment
- Transferred to animals and humans through physical contact
- Symptoms:
 - Circular loss of hair
 - Dehydration
 - Dry, red skin
 - Depression
- Not all horses will show symptoms
- Treatment starts with shaving the area and washing the skin with an anti-fungal shampoo
- It is very important to make sure the area is dry after shampooing because the fungus loves moist areas

33. Brucellosis (Brucella abortus)

- A bacterial disease that is transferred through contact with infected animals and equipment
- Causes "poll evil," which is the inflammation of withers (the highest point of the horse's back) and/or poll (area behind the horse's ear)
- Swelling can be severe enough to burst, which will appear as pus
- Can reduce the horse's ability to reproduce and cause a mare to abort a fetus
- Antibiotics are given, but once a horse gets Brucellosis, it typically remains in the body

34. West Nile encephalitis

- While humans do not directly get West Nile virus, they do contract it from infected mosquitoes
- Mosquitoes get West Nile virus by biting an animal that already has the virus before transferring it when the infected mosquito bites
- Symptoms:
 - Depression
 - Difficulty walking
 - Convulsions
 - Paralysis
- Horses may not show symptoms
- Results of this virus can be mild or as severe as death
- Prevent through vaccination and control of mosquitoes

35. Salmonellosis (various Group A, B, and C salmonellae)

- Salmonella is a bacteria that is spread through contaminated food, water, or environment
- Contamination comes from exposure to poop from infected animals

- The main symptom is diarrhea, which can be life threatening due to dehydration
- Horses may not show any symptoms
- Treat by keeping the horse hydrated and providing an electrolyte replacement

36. Rabies

- A neurological disease that is spread through a bite of an infected animal
- Rabies in horses is very rare but can happen
- Symptoms include a change in behavior, such as aggression
- Prevent by vaccinating

37. Leptospirosis (Leptospira spp.)

- A bacterial disease that is found in animal's urine
- Transmitted through exposure to
 - Urine
 - Soil
 - Water
 - Bedding
- This bacteria can live outside the body for weeks to months
- Treatment is through antibiotics
- Symptoms:
 - Cloudy or inflamed eyes
 - Stillbirths
 - Abortions
 - Fever
 - Kidney failure

38. Cryptosporidiosis (Cryptosporidium spp.)

- A parasitic disease that is caused by *Cryptosporidium*
- Transmitted through swallowing poop
- Older horses normally do not get this disease due to their stronger immune system
- Pre-weaned foals more frequently develop this disease, which shows up as diarrhea
- Treatment for this disease is only supportive
- Keep the animal hydrated and supplement feed as needed to improve the immune system

39. Parasites

- Come in two types, which are internal and external
- Internal parasites are those that split their life cycle between existing outside the body and inside the host
- External parasites are those that only live outside the body

40. Internal Parasites

41. Large Strongyles

- Three species affect horses, which include *Strongylus vulgaris*, *Strongylus edentatus*, and *Strongylus equinus*
- Found on pasture
- Ingested as the horse grazes
- *Strongylus vulgaris* larvae swim up blades of grass in water droplets
- Once eaten, the larvae make their way to the large intestines and then to blood vessels
- While in the blood vessels, they can burrow into the walls of arteries, blocking blood flow
- *Strongylus vulgaris* is the most dangerous of the large Strongyles species
- The remaining two species of this parasite move from the large intestine to the liver and back
- Large strongyles are no longer a major concern in the equine industry due to treatment strategies that occurred decades ago
- Diagnosed through observation and looking for the parasite's eggs and larvae in a fecal sample
- Horses of all ages can be affected
- Treatment is deworming

42. Small Strongyles

- Different species exist and the transmission is the same as with the large strongyles
- Larvae live on grass blades
- As horses eat the grass, they consume the larvae
- The larvae make their way to the digestive tract and stay there
- While in the digestive tract, they normally burrow into the walls of the colon and cecum
- When this happens, the parasite has "encysted"
- This parasite can remain in the colon and/or cecum for up to two years
- When the environment is right, the small strongyles will mature and produce eggs
- If a horse has ever grazed, it is assumed that the equine has some level of small strongyles
- Symptoms or problems caused by this parasite are rare
- Affect all ages of horses
- Diagnosed through fecal testing
- Resistant to deworming, meaning there is no treatment

43. Ascarids

- Known as *Parascaris equorum* or roundworm
- Attacks younger foals, and weanlings (a foal being weaned)
- Eggs are picked up from surfaces such as troughs, buckets, and even the udder of the mother (mare)
- Once a foal consumes the eggs, the larvae hatch in the small intestines

- Larvae then moves from the small intestine to the liver and then to the lungs
- Once in the lungs, they are coughed up, swallowed, and end up back in the small intestine
- The larvae mature in the small intestine and lay eggs
- Diagnosis comes from fecal testing
- While there are still some dewormers that treat the animal for this parasite, many dewormers no longer work due to overuse

44. Tapeworms

- Three species of tapeworm found in horses with the most common one being *Anoplocephala perfoliata*
- This parasite is unique in that it has two hosts
- The first host is the oribatid mite, which eats tapeworm eggs
- The tapeworm eggs hatch and develop into larvae inside the oribatid mite
- As horses graze on pasture, they consume the oribatid mite
- At this point, the larvae end up in the small intestine of the horse
- Adult tapeworms move through the small intestine until they reach the ileocecal junction
- This junction is where the last part of the small intestine joins the cecum
- At this junction, the tapeworm attaches to the gut wall where they cause inflammation of the intestinal tract
- Can be found in horses of all ages
- Fecal examination is required for proper diagnosis
- Treat by deworming

45. Pinworms

- Pinworms (*Oxyuris equi*) are consumed by horses as they graze
- While this parasite causes hair loss around the tail due to it rubbing its butt on everything, it does not normally cause a lot of internal damage
- Adult pinworms travel out of the anus to lay eggs on the host's backside
- The eggs cause itching and irritation
- The horse responds to this by rubbing its butt and tail on anything to relieve the irritation
- Rubbing dislodges the eggs, starting the process again
- Infestation is determined by fecal examination and observing behavior
- Treat by deworming

46. Bots

- Bots are commonly called "stomach bots," which are both internal and external parasites
- Known as *Gasterophilus intestinalis*
- Adult bots are external pests that look like bees
- They lay little, yellow, oval-shaped eggs on the horses' coats

- These eggs are normally found in areas that the horse can bite or lick, such as the lower leg region
- The licking and/or biting stimulates the eggs to hatch
- The larvae burrow into the horse's gums where they will remain for four weeks
- After four weeks, the parasite moves into the stomach where it finds home in the stomach lining
- The parasite will remain in the stomach lining for nine months
- After nine months, the parasite leaves the horse's body through the fecal matter
- Results can be minor oral lesions and damage to the stomach lining
- This damage is minor and normally does not cause serious health issues
- Fecal test and observation are required for diagnosis
- Dewormer can be given but not normally
- Setting up ways of controlling bots is more common, which can include fly strips

47. Threadworms

- Known as *Strongyloides westeri*
- Normally only attacks foals but can be found in horses up to 8-10 months old
- Once the horse reaches this age, their immune system is strong enough to defend against threadworms
- Foals can get threadworm three ways
 1. The first exposure comes from the mare's milk, which can carry threadworm larvae
 2. Foals can have larvae on their coat that break through the skin
 3. Foals can pick up threadworms from their environment
- Once in the foal's body, the larvae move to the lungs and then to the small intestines
- Once in the small intestines, the threadworms can cause diarrhea
- If the condition is serious enough, the foal will become dehydrated
- Deworming normally prevents problems from threadworms
- Diagnosed through fecal examination

48. External Parasites

49. Ticks

- Ticks are not usually a problem
- They suck the blood of horses
- Once full, they fall off the animal's body
- Examining horses when they return from grazing in tall grass is the most effective way to keep ticks off horses

50. Biting Flies

- Biting flies that normally attack horses include:

- Horn flies
- Horse flies
- Deer flies
- Sometimes black flies
- This external parasite bites the animal and sucks their blood
- Biting flies do not cause damage or excessive blood loss
- While they do not cause damage or illness, they do annoy the horses
- Fly strips are used to control the flies

51. Mange (Demodex equi, Psoroptes equi)

- Mange comes from a mite that causes skin diseases known as:
 - Mange
 - Barn itch
 - Scab
 - Scabies
- Horses are exposed to the mite through direct contact with horses who already have this mite or equipment used on and around horses with this skin disease
- Horses with mange rub against anything to get relief from the itching
- This can cause the skin to become inflamed, hair loss, and sores
- Treated by applying a lime-sulfur solution
- This treatment can be in the form of a dip, spray, or sponge-on application

52. Lice

- There are two types of lice that attack horses, biting lice and blood-sucking lice
- Blood-sucking lice is the most dangerous because they can cause major blood loss
- Biting lice can be found anywhere on the body
- Sucking lice can be found on the
 - Head
 - Neck
 - Back
 - Inner thigh
- It is more common to develop a problem with lice during the winter months because the hair on the horse is longer to protect them from the cold temperatures
- Lice can hide in the long hairs
- Spread from animal to animal by contact
- Due to horses spending more time in the barns, lice can very quickly spread to every animal in the barn
- Diagnosed by observation
- Treated with a spray that contains pyrethrins

53. Mosquitoes

- Mosquito problems begin with standing water or a wet season

- Both these environments give female mosquitoes the perfect area to lay their eggs
- Only females feed on animals and need blood to continue their life cycle
- Female mosquitoes will feed any time but will swarm horses during dry periods
- A mosquito bite causes irritation
- When possible, prevention is the best approach
- Prevention involves emptying buckets and keeping water from standing in the horse's environment
- There are several types of treatment beyond using an insect repellent, such as pyrethroids
- Fly masks and fly wraps can keep mosquitoes away from the horse's skin
- Additives to feed is another preventative approach
 - These additives include garlic and/or apple cider vinegar, which is supposed to put an aroma out that repels mosquitoes
- Keeping horses in the barns during dawn and dusk hours is another way of reducing the exposure to the pest because mosquitoes are known to feed during dawn and dusk hours

Lesson Three – Horse Diseases and Parasites

REVIEW: Recap of Horse Diseases and Parasites

10 minutes

Purpose:

Participants will work in pairs to review the diseases and parasites of horses using trivia cards in preparation for a quiz.

Materials:

- *Horse Kit Diseases and Parasites Trivia Cards*
- *Horse Diseases and Parasites Quiz*
- *Horse Diseases and Parasites Quiz – Answer Key*

Facilitation Steps:

1. Break participants into pairs and distribute the trivia cards.
2. Give instructions on how to use the trivia cards and allow participants five minutes to review.
3. Collect the trivia cards and have participants go back to their seats.
4. Distribute the quiz to participants and explain how to fill it out.
5. Give participants five minutes to complete the quiz.
6. Once the testing time is up, collect the quiz.

Name: _____ Class: _____

Horse Diseases and Parasites Quiz

Directions: Circle the correct answer for each statement.

1. Both male and female mosquitoes attack horses. True or False
2. African horse sickness is a bacterial illness for horses. True or False
3. To keep a horse from getting Potomac horse fever, all one has to do is vaccinate with PHF. True or False
4. A common symptom that horses display when they are not well is showing their teeth. True or False
5. Horses get exposed to ticks when they graze in tall grass. True or False
6. There are no horse diseases or parasites that can be transferred to humans. True or False
7. There is no treatment for equine viral arteritis. True or False
8. A horse that develops equine herpesvirus must be euthanized. True or False
9. Ticks cause African horse sickness. True or False
10. Blastomycosis in horses is caused by a fungus. True or False
11. Supportive care includes keeping the horse hydrated and allowing it to rest. True or False
12. A horse that develops equine piroplasmiasis has a 50% survival rate. True or False
13. Strangles is an equine disease that causes the body to shake. True or False
14. Exposing barn areas to sunlight is one of the treatments for glanders. True or False
15. Threadworm is treated by shaving the area and washing the horse with an anti-fungal. True or False
16. Prevention is the only treatment for rabies. True or False
17. Bots is not a disease or parasite; it is a treatment. True or False
18. While lice can attack anytime of the year; spring is the most common time. True or False
19. Every horse has small strongylis. True or False
20. West Nile encephalitis is spread by ticks. True or False
21. Dourine has no cure. True or False
22. Rhodococcus equi is a bacterial disease. True or False
23. Equine Parvovirus-hepatitis Virus is prevented by giving a horse a vaccination. True or False
24. If a horse develops Leishmaniasis, then the horse will develop lesions that need to be cut away and cleaned. True or False
25. A positive test for Epizootic Lymphangitis results in the horse getting a bath. True or False

Horse Diseases and Parasites Quiz – Answer Key

Directions: Circle the correct answer for each statement.

1. Both male and female mosquitoes attack horses. True or **False**
2. African horse sickness is a bacterial illness for horses. True or **False**
3. To keep a horse from getting Potomac horse fever, all one has to do is vaccinate with PHF. **True** or False
4. A common symptom that horses display when they are not well is showing their teeth. True or **False**
5. Horses get exposed to ticks when they graze in tall grass. **True** or False
6. There are no horse diseases or parasites that can be transferred to humans. True or **False**
7. There is no treatment for equine viral arteritis. **True** or False
8. A horse that develops equine herpesvirus must be euthanized. True or **False**
9. Ticks cause African horse sickness. True or **False**
10. Blastomycosis in horses is caused by a fungus. **True** or False
11. Supportive care includes keeping the horse hydrated and allowing it to rest. **True** or False
12. A horse that develops equine piroplasmiasis has a 50% survival rate. **True** or False
13. Strangles is an equine disease that causes the body to shake. True or **False**
14. Exposing barn areas to sunlight is one of the treatments for glanders. **True** or False
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24. If a horse develops Leishmaniasis, then the horse will develop lesions that need to be cut away and cleaned. **True** or False
25. A positive test for Epizootic Lymphangitis results in the horse getting a bath. True or **False**

Lesson Four – Horse Reproductive Systems

Lesson Overview

Participants are introduced to terminology relating to male and female reproduction in horses and their respective reproductive tracts. This includes the components of the tract, their location, and their function.

Lesson Objectives

After completing this lesson, participants will be able to:

- Correctly identify terms associated with stallion and mare reproduction
- Name, locate, and describe the functions of the stallion and mare reproductive system
- Identify the primary male and female reproductive structures and their functions

Lesson at a Glance

Activity	Materials	Preparation	Approximate class time
FOCUS	• <i>Mammal Gestation Game Sheet</i> • Whiteboard/blackboard • Whiteboard markers/chalk	1. Access <i>Mammal Gestation Game Sheet</i>	5 minutes
LEARN	• <i>Female Reproductive System</i> slide presentation • <i>Male Reproductive System</i> slide presentation • <i>Female and Male Reproductive System</i> worksheet • <i>Female and Male Reproductive System – Answer Key</i>	1. Prepare to present the <i>Male Reproductive System</i> and <i>Female Reproductive System</i> slide presentations 2. Print/Photocopy <i>Female and Male Reproductive System</i> worksheet (one per participant)	40 minutes
REVIEW	• Horse Reproduction Poster • <i>Female Reproductive System Quiz</i> • <i>Male Reproductive System Quiz</i> • <i>Female Reproductive System Quiz – Answer Key</i> • <i>Male Reproductive System Quiz – Answer Key</i>	1. Prepare Horse Reproduction Poster 2. Print/Photocopy <i>Female Reproductive System Quiz</i> and <i>Male Reproductive System Quiz</i> (one of each per participant)	15 minutes

Lesson Four – Horse Reproductive Systems

FOCUS: Mammal Gestation Overview

5 Minutes

Purpose:

Participants will learn how the horse gestation period compares to other mammals.

Materials:

- *Mammal Gestation Game Sheet*
- Whiteboard/blackboard
- Whiteboard markers/chalk

Facilitation Steps:

1. Write a column on the whiteboard labeled “Mammals.”
2. Write the following mammals in that column on the whiteboard: cow, dog, horse, cat, human.
3. In another column write the word “Gestation” and have participants guess how long each gestation period lasts.
4. Write down the correct answer when participants guess it.

Mammal Gestation Game Sheet

Species	Gestation
Cow (Bovine)	9 Months
Dog (Canine)	2 Months
Horse (Equine)	11 Months
Cat (Feline)	2 Months
Human	9 Months

Lesson Four – Horse Reproductive Systems

LEARN: Male and Female Reproductive Systems

40 Minutes

Purpose:

Participants will gain a better understanding of the parts of the horse reproductive system and the function of each part.

Materials:

- *Female Reproductive System* slide presentation
- *Male Reproductive System* slide presentation
- *Female and Male Reproduction* worksheet
- *Female and Male Reproduction* – Answer Key

Facilitation Steps:

1. Prepare the *Female Reproductive System* slide presentation and *Male Reproductive System* slide presentation for viewing.
2. Distribute the *Female and Male Reproduction* worksheet.
3. Start with viewing the *Male Reproductive System* slide presentation and then view the *Female Reproductive System* slide presentation.
4. Have participants fill out the *Female and Male Reproduction* worksheets as you go over the slide presentations.

Male Reproductive System

Slide 1: Title slide

Slides 2-3: Basic Reproduction Terms

- **Puberty:** Sexual maturity

- **Ovulation:** Release of ovum (egg) from ovary
- **Copulation:** The act of mating
- **Fertilization:** Union of male and female sex cells
- **Conception:** Becoming pregnant
- **Estrous Cycle:** The interval between two estrus periods
- **Estrus:** The time of receptivity to mating during the estrous cycle, also called “heat”
- **Gestation:** Pregnancy
- **Parturition:** The act of giving birth

Slides 4-5: Male Reproductive Tract

Typical male farm mammal parts:

- Scrotum
- Testes (2)
- Epididymis
- Vas Deferens
- Urethra

Slide 6: Scrotum

- Contains and protects testicles
- External to the body
- Functions in temperature regulation
- Keeps testicles lower than body temperature
- Extremely high temps may result in temporary infertility

Slide 7: Testis/Testicle

- Paired within the scrotum
- Sperm production factory
 - Sperm cells are what fertilizes the ova

- Sperm formed in seminiferous tubules
- If castrated (testicles removed)
 - Animal becomes sterile (male horse – gelding)
 - Loses some male characteristics

Slide 8: Epididymis

- Long, slender tubule encased and lying along the surface of the testes
- Tight storage site for sperm cells
- Sperm packed so they can't swim
- Sperm mature while passing through
- Sperm degenerate and absorbed if not moved into vas deferens

Slide 9: Vas Deferens

- Simple tubule carrying sperm from the epididymis to the urethra by peristaltic action
 - Peristaltic action: Contraction of muscles moving the food through the digestive system
- Converge into urethra

Slide 10: Urethra

- Single tubule leading from vas deferens through penis to exit
- Extends from urinary bladder through full length of penis
- Leads through penis and out of body
- Discharges urine and ejaculates sperm

Slide 11: Penis

- **Glans Penis:** The sensitive end of the penis that enlarges during sexual copulation
- **Seminal Vesicles:** Hold the liquid that mixes with sperm to form semen

Slide 12: Accessory Glands

- **Prostate gland**
- **Seminal vesicular gland**
- **Bulbourethral gland**

These furnish alkaline fluid secretions that neutralize the urethra, through which sperm are

transported from the epididymis to the end of the male genitalia glans penis.

Slide 13: Bladder

- A sac for temporarily storing urine
- Located in the pelvic cavity

Slide 14: Testosterone

- Major hormone of reproduction
- Produced in cells of Leydig in testes
- Causes growth of reproductive tract
- Development of male physical characteristics and onset of sexual drive

Slide 15: Male Reproduction Conditions

- **Castration:** Removal or destruction of the testes by surgical or other physical or chemical methods
 - In a horse, he's known as a **Gelding** and is unable to breed
- **Cryptorchid:** Male mammal with one or both testicles failing to descend into the scrotum

Female Reproductive System

Slide 1: Title slide

Slide 2: Overview

- The anatomy and physiology of reproduction, including:
 - Anatomical views and parts identification
 - Estrous cycle and gestation
 - New developments and related technologies

Slide 3: Female Reproductive Tract

Slide 4: Typical female farm mammal parts:

- Vulva
- Vestibule
- Vagina
- Cervix
- Body of Uterus
- Uterine Horn
- Fallopian Tubes/Oviducts

- Ovaries

Slide 5: Vulva and Vestibule

- **Vulva:** Consists of the external genital organs of a female
- **Vestibule:** General area of vagina posterior to entrance of urethra

Slide 6: Vagina

- Female organ of copulation
- Birth canal
- Dual role of reproductive and urinary systems
- Structure external to the cervix, accepts penis of male for mating

Slide 7: Cervix

- Muscular opening between uterus and vagina
- Remains reasonably constricted except for dilation to allow birth

Slide 8: Body of Uterus

- Where most of the embryonic development and nourishment takes place
- Multi-layered, hollow, Y-shaped organ with the base of the Ys called the uterine body, while the two branches are called horns
- Produces hormones and is the receptacle where semen is deposited during natural breeding

Slide 9: Uterine Horn

- Where the uterus and fallopian tubes meet
- Two relatively short uterine horns lead from the oviduct to the body of the uterus

Slide 10: Fallopian Tubes/Oviducts

- A long tube that links the ovary to the uterine horn
- Sperm from natural or artificial insemination meet ova in oviducts and fertilization takes place
- The fertilized ovum is then transported to the uterus

Slide 11-12: Ovaries

- Primary sex organ of the mare
- Paired and will produce ova (eggs)
- Each ovum is the largest single cell in the body
- Ovum develop inside follicle
- Female sex hormones
 - Estrogen
 - Progesterone
- Are the farthest forward reproductive organs, under the fourth or fifth lumbar vertebrae
- Size varies according to the individual and the season, ranging from 2-8 cm long and 2-4 cm wide
 - The ovary can become larger in the spring, and smaller in winter
- The ovaries produce both hormones and ova, which become eggs when fertilized by sperm
- Follicles in the ovary (present at birth as primordial follicles) develop on an ongoing basis throughout the mare's reproductive life

Slide 13: Major Reproduction Hormones

- **Estrogen**
 - Produced in cells lining mature ovarian follicles
 - Induces estrus, mammary duct growth, and development of secondary sex character
- **Progesterone**
 - Need to have a high level of this hormone or the animal will not stay pregnant

Slide 14: Estrus Cycle – Time in Heat

- Bovine = 15 hours
- Canine = 2-4 weeks
- Caprine = 12-36 hours
- Equine = 5-7 days
- Feline = 1-7 days
- Ovine = 24-36 hours
- Porcine = 2-3 days

Name: _____

Class: _____

Female and Male Reproductive Systems

1. Define the following:

- a. Puberty
- b. Ovulation
- c. Copulation
- d. Fertilization
- e. Conception
- f. Estrous Cycle
- g. Estrus
- h. Gestation
- i. Parturition

2. Define the following male reproductive terms:

- a. Scrotum
- b. Testes or testicles
- c. Epididymis
- d. Urethra
- e. Vas Deferens
- f. Glans penis
- g. Seminal Vesicles
- h. Accessory Glands (i.e., Prostate Gland, Seminal vesicular gland, Bulbourethral gland)
- i. Bladder
- j. Testosterone

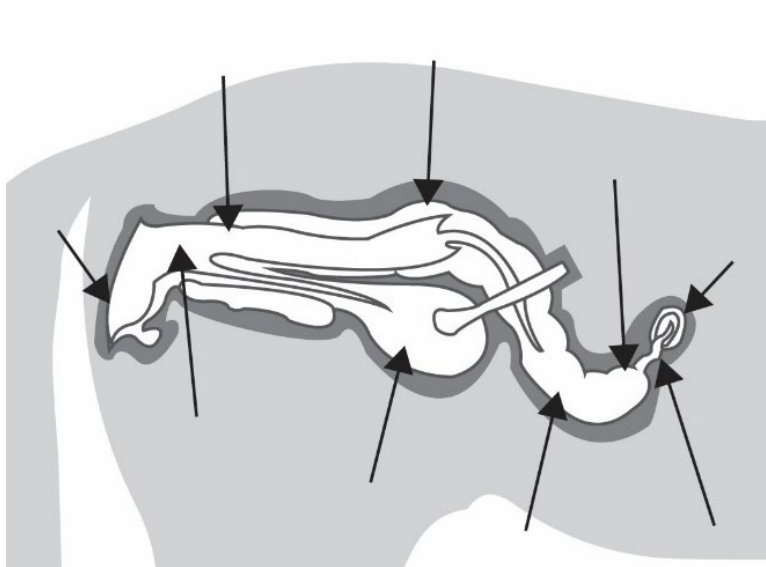
3. Define the following male reproductive conditions:

- a. Castration
- b. Cryptorchid

4. Label the following diagram for male reproductive parts:



5. Label the following diagram for female reproductive parts:



6. Define the following female reproductive terms:

- a. Vulva
- b. Vestibule
- c. Vagina
- d. Cervix
- e. Body of Uterus
- f. Uterine Horn
- g. Fallopian tubes/Oviducts
- h. Ovaries
- i. Estrogen
- j. Progesterone

7. Define the Estrus Cycle – Time in Heat, for each of the following:

- a. Bovine =
- b. Canine =
- c. Caprine =
- d. Equine =
- e. Feline=
- f. Ovine =
- g. Porcine =

Female and Male Reproductive Systems– Answer Key

1. Define the following:

- a. Puberty: Sexual maturity
- b. Ovulation: Release of ovum (egg) from ovary
- c. Copulation: The act of mating
- d. Fertilization: Union of male and female sex cells
- e. Conception: Becoming pregnant
- f. Estrous Cycle: Time between when animal is in heat, the entire cycle
- g. Estrus: Actual time animal is in heat, receptive to fertilization
- h. Gestation: Pregnancy
- i. Parturition: The act of giving birth

2. Define the following male reproductive terms:

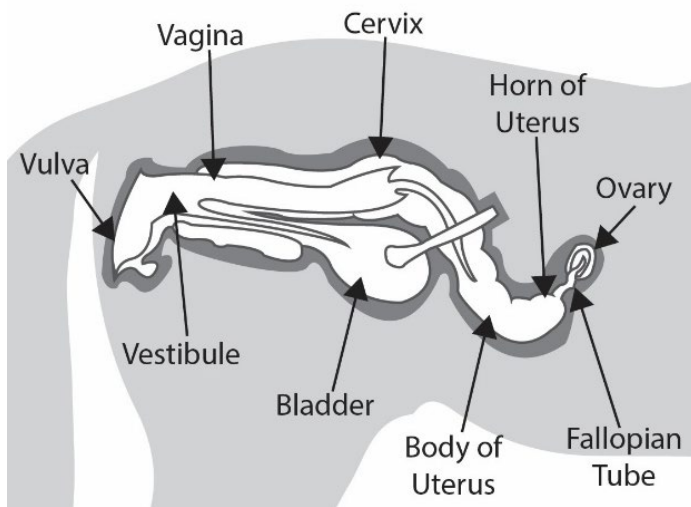
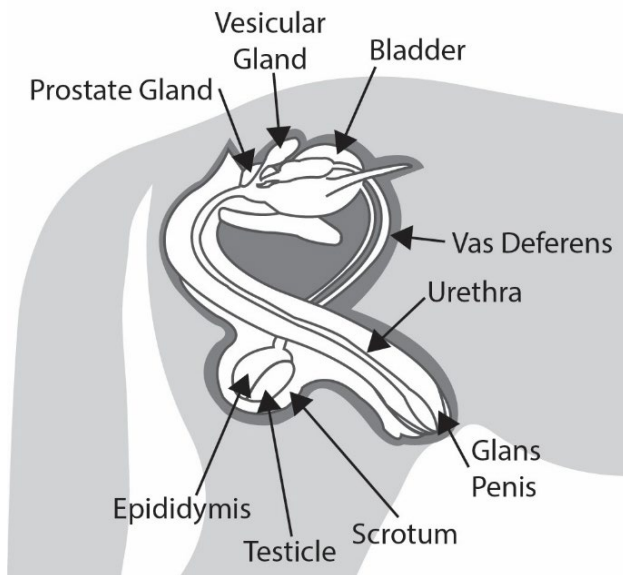
- a. Scrotum: The main functions of the scrotum are to protect the testes and maintain them at a temperature several degrees lower than body temperature.
- b. Testes or testicles: There are two testes enclosed in the scrotum. The testes produce sperm cells.
- c. Epididymis: The epididymis transports sperm from the testes and is the area for concentration, maturation, and storage of the sperm.
- d. Urethra: The urethra passes from the bladder to the end of the penis. Its function is to discharge urine and ejaculate semen.
- e. Vas Deferens: Simple tubule carrying sperm from the epididymis to the urethra by peristaltic action.
- f. Glans penis: This is the sensitive end of the penis that enlarges during copulation.
- g. Seminal Vesicles: Hold the liquid that mixes with sperm to form semen.
- h. Accessory glands: The vesicular glands are accessory sex glands.

- i. Bladder: **This area functions as temporary storage space for urine.**
- j. Testosterone: **Major hormone of reproduction produced in cells of Leydig in testes.**
Creates growth of reproductive tract and development of male physical characteristics and onset of sexual drive.

3. Define the following male reproductive conditions:

- a. Castration: **Removal or destruction of the testes by surgical or other physical or chemical methods**
- b. Cryptorchid: **Male mammal with one or both testicals failing to descend into scrotum**

4. Label the following diagram for male reproductive parts:



5. Label the following diagram for female reproductive parts:

6. Define the following female reproductive terms:

- a. Vulva: The external opening of the urogenital tract. It is part of the birth canal, and the area where urine is voided.
- b. Vestibule: Extends from the external urethral opening to the external vulva, so combines urinary and reproductive functions. The wall contains vestibular glands that keep the mucosa of the vestibule moist and facilitates coitus and parturition. It also sexually stimulates the male through odor.
- c. Vagina: Part of the birth canal that lies in the pelvic girdle between the vulva and the cervix.
- d. Cervix: It is a structure of approximately 10 cm (4 in.) in length between the vagina and the uterus. It is the "door to the uterus" and serves to maintain a sterile environment in the uterus. It relaxes when the mare is in heat and closes when not in heat or pregnant.
- e. Body of uterus: A large uterine body, just anterior to the cervix, and two relatively short uterine horns that terminate in the oviduct. The uterus is where most embryonic development and nourishment takes place. It also produces hormones and is the receptacle where semen is deposited during natural breeding.
- f. Uterine horn: The uterine horns are the points where the uterus and the fallopian tubes meet.
- g. Fallopian tubes/Oviduct: The oviducts, also known, as Fallopian tubes, connect the uterine horns and ovaries. During ovulation, the unfertilized ovum enters the oviduct at the infundibulum. The ovum travels to the widened ampulla segment of the oviduct for fertilization to occur.
- h. Ovaries: It is the primary sex organ of the mare. The ovary produces the ovum (egg) to be fertilized and serves as an endocrine gland producing the hormones estrogen and progesterone.
- i. Estrogen: Produced in cells lining mature ovarian follicles. Induces estrus, mammary duct growth, and development of secondary sex character.
- j. Progesterone: Need to have a high level of this hormone or the animal will not stay pregnant

7. Define the Estrus Cycle – Time in Heat, for each of the following:

- a. Bovine = **15 hours**
- b. Canine = **2-4 weeks**
- c. Caprine = **12-36 hours**
- d. Equine = **5-7 days**
- e. Feline = **1-7 days**
- f. Ovine = **24-36 days**
- g. Porcine = **2-3 days**

Lesson Four – Horse Reproductive Systems

REVIEW: Horse Reproductive Systems Quiz

15 Minutes

Purpose:

This brief quiz will help assess participants' knowledge of horse reproductive systems.

Materials:

- Horse Reproduction Poster
- *Female Reproductive Systems Quiz*
- *Male Reproductive Systems Quiz*
- *Female Reproductive Systems Quiz – Answer Key*
- *Male Reproductive Systems Quiz – Answer Key*

Facilitation Steps:

1. Direct the participants to the poster and instruct them to review the information presented.
2. After five minutes, distribute the quiz and go over the directions.
3. Give participants five minutes to take the quiz.
4. Collect to correct or go over the answers in class.

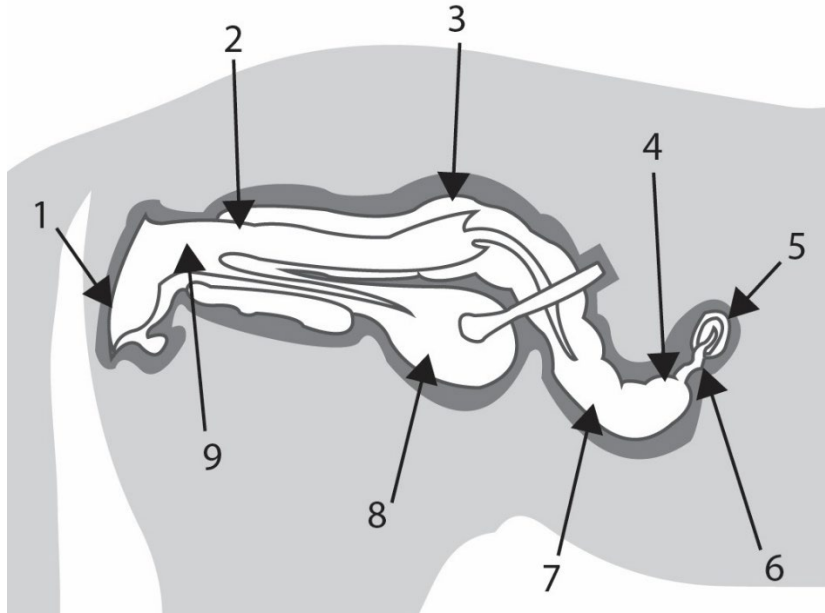
Optional: Allow *Female and Male Reproductive Systems* worksheet to be used with quizzes.

Name: _____

Class: _____

Female Reproductive Systems Quiz

Label and match the following reproductive parts:



- 1) _____
- 2) _____
- 3) _____
- 4) _____
- 5) _____
- 6) _____
- 7) _____
- 8) _____
- 9) _____

Vagina
Fallopian Tube
Ovaries
Cervix
Body of Uterus
Vulva
Vestibule
Uterine Horn
Bladder

Horse Kit Curriculum

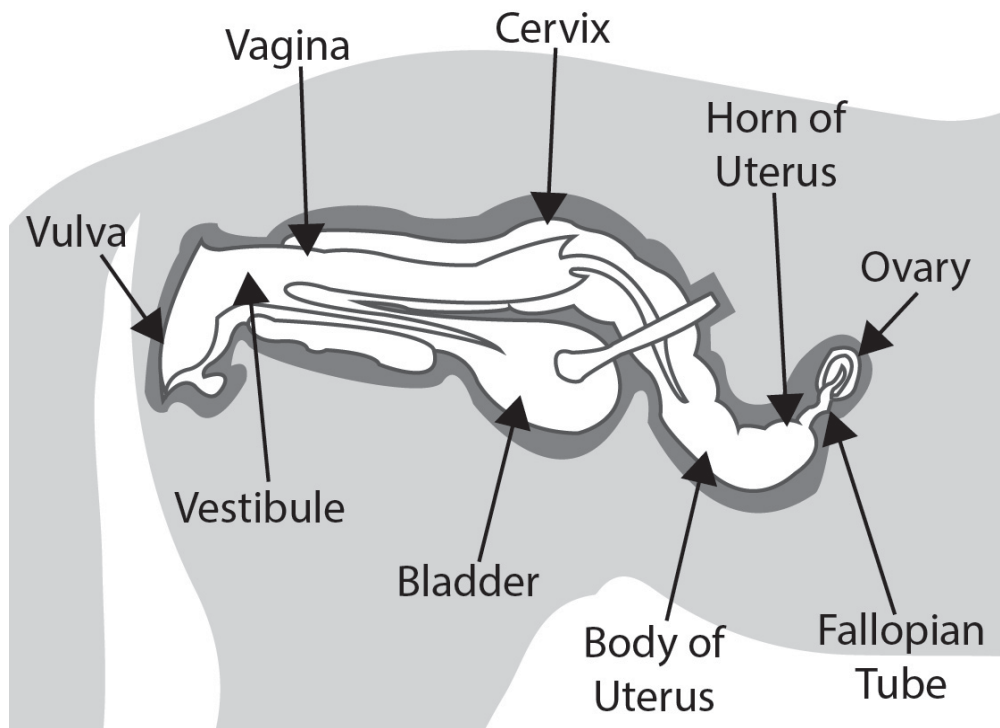
Match each part with their correct function:

- | | |
|-------------------------------------|---------------------------|
| 1) ____ Vagina | 5) ____ Cervix |
| 2) ____ Uterine Horn | 6) ____ Vestibule |
| 3) ____ Vulva | 7) ____ Body of uterus |
| 4) ____ Fallopian tube (oviduct) | 8) ____ Ovaries |

- A. Where the uterus and fallopian tubes meet
- B. Part of the birth canal that lies between the vulva and cervix
- C. General area of vagina posterior to entrance of urethra
- D. Where most embryonic development and nourishment takes place
- E. Connects uterine horns and ovaries; fertilization occurs here
- F. Primary sex organ of the mare
- G. Consists of the external genital organs of a female
- H.

Female Reproductive Systems Quiz – Answer Key

Label and match the following reproductive parts:



1) Vulva

2) Vagina

3) Cervix

4) Uterine Horn

5) Ovaries

6) Fallopian Tube

7) Body of Uterus

8) Bladder

9) Vestibule

Horse Kit Curriculum

Match each part with their correct function:

1) **B** Vagina

5) **H** Cervix

2) **A** Uterine Horn

6) **C** Vestibule

3) **G** Vulva

7) **D** Body of Uterus

4) **E** Fallopian Tube (Oviduct)

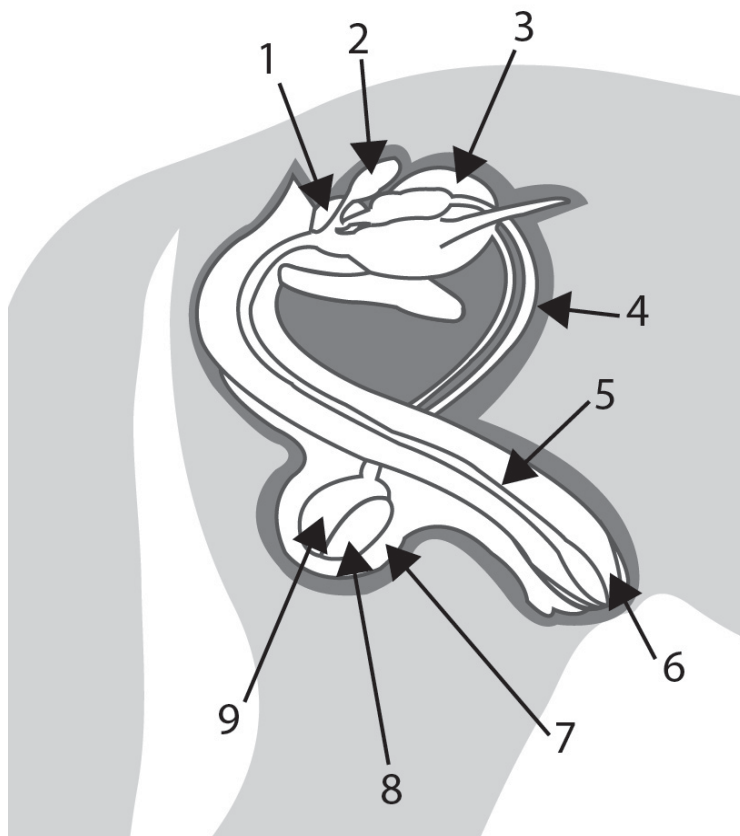
8) **F** Ovaries

- A. Where the uterus and fallopian tubes meet
- B. Part of the birth canal that lies between the vulva and cervix
- C. General area of vagina posterior to entrance of urethra
- D. Where most embryonic development and nourishment takes place
- E. Connects uterine horns and ovaries; fertilization occurs here
- F. Primary sex organ of the mare
- G. Consists of the external genital organs of a female
- H. Maintains a sterile environment in the uterus

Name _____ Class: _____

Male Reproductive Systems Quiz

Identify and label the following parts:



- 1) _____
- 2) _____
- 3) _____
- 4) _____
- 5) _____
- 6) _____
- 7) _____
- 8) _____
- 9) _____

- A) Epididymis
- B) Bladder
- C) Scrotum
- D) Vesicular gland
- E) Vas deferens
- F) Testicle
- G) Prostate gland
- H) Glans penis
- I) Urethra

Horse Kit Curriculum

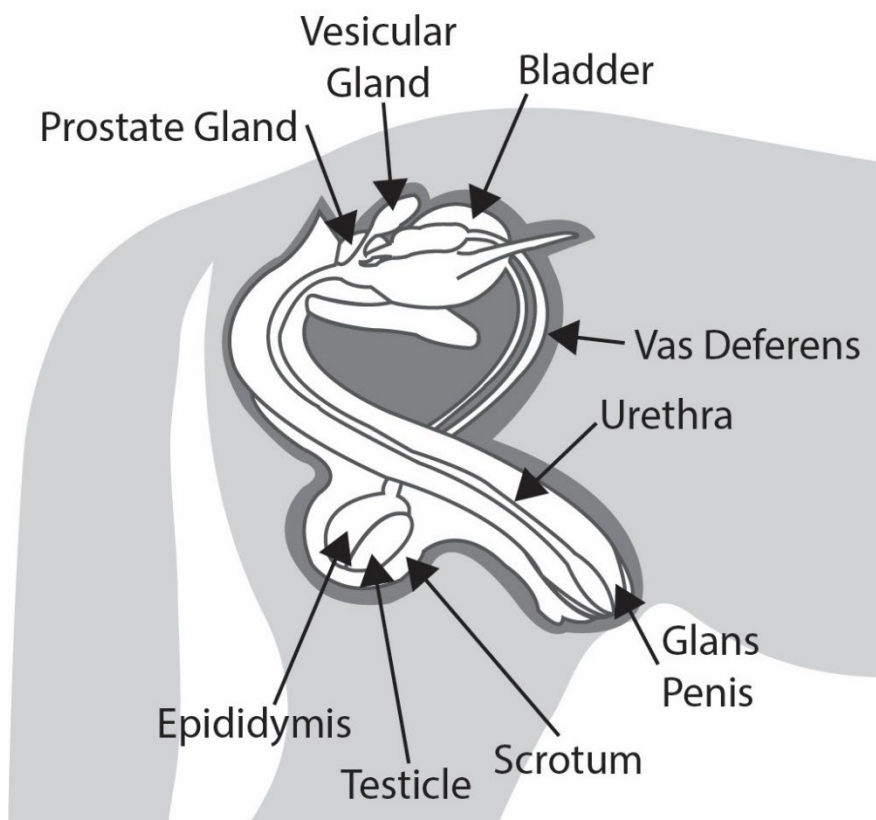
Match each part to their correct function:

- | | |
|--------------------|-------------------|
| A) Epididymis | F) Testicle |
| B) Bladder | G) Prostate gland |
| C) Scrotum | H) Glans penis |
| D) Vesicular gland | I) Urethra |
| E) Vas deferens | |

- 1) _____ Protects by regulating temperature
- 2) _____ Discharges urine and ejaculates sperm
- 3) _____ Produce sperm cells and testosterone
- 4) _____ Accessory sex gland that adds fluid to ejaculate
- 5) _____ Accessory sex gland that adds gel to the ejaculate
- 6) _____ Used for temporary storage of urine
- 7) _____ Area for storage and maturation of sperm
- 8) _____ The sensitive end of the penis that enlarges during sexual copulation
- 9) _____ Carries sperm to the urethra

Male Reproductive Systems Quiz – Answer Key

Identify and label the following parts:



- 1) Prostate Gland
- 2) Vesicular Gland
- 3) Bladder
- 4) Vas Deferens
- 5) Urethra
- 6) Glans Penis
- 7) Scrotum
- 8) Testicle
- 9) Epididymis

Horse Kit Curriculum

Match each part to their correct function:

- | | |
|--------------------|-------------------|
| A) Epididymis | F) Testicle |
| B) Bladder | G) Prostate gland |
| C) Scrotum | H) Glans penis |
| D) Vesicular gland | I) Urethra |
| E) Vas deferens | |

- 1) **C** Protects by regulating temperature
- 2) **I** Discharges urine and ejaculates sperm
- 3) **F** Produce sperm cells and testosterone
- 4) **G** Accessory sex gland that adds fluid to ejaculate
- 5) **D** Accessory sex gland that adds gel to the ejaculate
- 6) **B** Used for temporary storage of urine
- 7) **A** Area for storage and maturation of sperm
- 8) **H** The sensitive end of the penis that enlarges during sexual copulation
- 9) **E** Carries sperm to the urethra

Lesson Five – Intro to Horse Body Systems

Lesson Overview

Participants will be given an overview of horse body systems.

Lesson Objectives

After completing this lesson, participants will be able to:

- List four of the body systems
- Describe what each system does
- Explain in general terms what a monogastric herbivore indicates

Lesson at a Glance

Activity	Materials	Preparation	Approximate class time
FOCUS	• <i>Guess The Body System</i> worksheet • <i>Guess The Body System</i> – Answer Key	1. Print/photocopy <i>Guess the Body System</i> worksheet (one per participant)	10 minutes
LEARN	• <i>Horse Body Systems</i> slide presentation • <i>How Do These Systems Work?</i> worksheet • <i>How Do These Systems Work?</i> – Answer Key	2. Print/photocopy <i>How Do These Systems Work?</i> worksheet (one per participant) 3. Prepare <i>Horse Body Systems</i> slide presentation for viewing	40 minutes
REVIEW	• Horse whiteboard • <i>Horse Body Systems Quiz</i> • <i>Horse Body Systems Quiz</i> – Answer Key	1. Prepare horse whiteboards 2. Print/photocopy <i>Horse Body Systems Quiz</i> (one per participant)	10 minutes

Lesson Five – Horse Body Systems

FOCUS: Intro to Horse Body Systems

10 minutes

Purpose:

Participants break into pairs and complete the worksheet on body systems.

Materials

- *Guess The Body System* worksheet
- *Guess The Body System* – Answer Key

Facilitation Steps:

1. Instruct participants to pair up.
2. Distribute the worksheet and provide directions on how to fill it out.
3. Give participants five minutes to complete the worksheet.
4. After five minutes, have participants exchange papers and go over the correct answers while they grade.
5. Collect the worksheet

Name: _____ Class: _____

Guess the Body System

Directions: Unscramble the words and then use them to fill in the blanks.

Scrambled Words:

1. Tivedegestid _____
2. Crineendo _____
3. Talskele _____
4. Scularmu _____

Fill in the blank with the unscrambled words.

1. _____ system consists of glands that produce hormones.
2. The frame for the body is made by the _____ system.
3. _____ system allows the body to move.
4. _____ system processes food.

Guess the Body System – Answer Key

Directions: Unscramble the words and then use them to fill in the blanks.

Scrambled Words:

- | | |
|-----------------|-----------|
| 1. Tivedegestid | Digestive |
| 2. Crineendo | Endocrine |
| 3. Talskele | Skeletal |
| 4. Scularmu | Muscular |

Fill in the blank with the unscrambled words.

1. Endocrine system consists of glands that produce hormones.
2. The frame for the body is made by the skeletal system.
3. Muscular system allows the body to move.
4. Digestive system processes food.

Lesson Five – Horse Body Systems

LEARN: Horse Body Systems

40 minutes

Purpose:

Participants will learn about the internal systems of horses and what the important functions are to that animal.

Materials:

- *Horse Body Systems* slide presentation
- *How Do These Systems Work?* worksheet
- *How Do These Systems Work?* – Answer Key

Facilitation Steps:

1. Set up the slide presentation and distribute the worksheet.
2. Provide directions on how to fill the worksheet out and start the presentation.
3. Once presentation is finished, collect the worksheet from participants.

Slide 1: Title slide

Slide 2: Let's Take a Look Under the Saddle

Slide 3: Skeletal System

- Consists of bones, cartilages, and ligaments
- The framework that supports and protects all the other body systems of the horse
- Horses have 205 bones

Slide 4: Not All Bones Are the Same

- The skeleton is made up of different shaped bones; each shape has a purpose
- Long bones provide support like columns, allowing the animal to move
- Short bones are shaped like cubes and in joints; they protect the body from friction and impacts
- Flat bones protect the organs of the animal, including the heart, lungs, and brain

Slide 5: What Keeps the Bones Together?

- The skeletal system is held together in three ways:
 - Joints occur where two or more bones meet
 - Ligaments are bands of connective tissue that keep bones together
 - Tendons are thick bands that connect bone and muscle

Slide 6: Muscular System

Slide 7: Function of Muscular System

- Muscles allow the body to move
- Muscles can be either voluntary or involuntary
- Voluntary are controlled by the animal, such as those in your hand that allow you to write
- Involuntary muscles are not controlled, such as the heart

Slide 8: 3 Types of Muscles

- Smooth muscles are involuntary and found in the walls of internal organs
- Cardiac muscles are involuntary and make up the heart
- Skeletal muscles are voluntary and attached to the bones, aiding in movement

Slide 9: Digestive System

Slide 10: How Does the Digestive System Work?

- The digestive system breaks food down into small molecules so that the body can get nutrition from the food
- The digestive system includes:
 - Mouth
 - Tongue
 - Pharynx
 - Esophagus
 - Stomach
 - Small intestine
 - Large intestine

- Anus

Slide 11: The Monogastric Herbivore

- Horses are monogastric herbivores, meaning they have one chambered stomach

Slides 12-18: The Journey of Food from Beginning to End

- The food journey begins as the horse eats
- Horse teeth are designed to crush grass and mix it with saliva
- This starts the digestive process while making it easier to move the food down the digestive tract
- Through this process, a bolus will form and move into the stomach
- The stomach of a horse is small; it can only hold 2-4 gallons of material
- In fact, a horse has the smallest stomach of any domesticated animal compared to its overall size
- Another name for the stomach is the foregut
- While the chewed food is in the foregut (stomach), it is mixed, stored, and slowly released into the small intestine
- Very little nutrition is absorbed through the stomach
- The small intestine of the horse is about 70 feet long
- Starch, protein, and fat are absorbed through the small intestines
- Due to the seed coating on cereal grains, many are incompletely broken down in the small intestine
- Food moves quickly through the small intestine
- On average, it takes 45 minutes for processed feed in the small intestine to reach the cecum
- Once the feed makes it to the cecum, it is now in the large intestine or what is referred to as hindgut
- The cecum is like a fermentation vat where microbial digestion occurs

- This means fiber is broken down more
- The type of feed consumed will determine what type of microbial population is in the large intestine
- For example, if the diet is high in starch, then amylolytic bacteria is present to break down the starch
- From here, the processed feed goes to the large colon, then to the small colon, and finally out the rectum
- This process can take 1-3 days

Slide 19: Endocrine System

Slide 20: What Does the Endocrine System Do?

- The endocrine system is made up of glands that produce hormones
- Hormones are chemicals that control different types of bodily functions
- There are four glands that create this system

Slides 21-22: The Glands and Their Functions

- Hypothalamus gland controls the pituitary gland and makes an antidiuretic hormone
- Pituitary gland makes amino acids and releases growth hormone
- Thyroid gland creates amino acids and encourages growth along with metabolism
- Adrenal gland makes amino acids as well as releases epinephrine and norepinephrine

How Do These Systems Work?

Directions: As you watch the slide presentation, fill in the blanks.

1. _____ System

- _____ of _____, _____, and _____
- The _____ that _____ and _____ body _____ of the horse
- _____ have _____

2. _____ Are the _____

- The _____ is _____ of _____
_____; _____ a _____
- _____ provide _____, allowing the _____
- _____ are _____ and _____
_____; they _____ the _____ and _____
- _____ the _____ of the animal,
_____ the _____, _____, and _____

3. What _____ the _____?

- The _____ is _____ in _____:
 - _____ where _____
 - _____ are _____ that _____
 - _____ are _____ that _____

4. _____ of _____

- _____ the _____
- _____ can be _____

- _____ are _____ by the animal, _____
_____ in _____

 - Involuntary muscles are not _____, such as the _____
5. _____ of _____
- _____ are involuntary _____
_____ organs
 - _____ are involuntary and _____ up the

 - _____ are voluntary and _____
the _____, aiding in _____
6. _____ Does the _____?
- The _____ into
_____ so that the _____ can _____
_____ the _____
 - The _____:
 - _____
 - _____
 - _____
 - _____
 - _____
 - _____
 - _____
 - _____
 - _____
7. The _____
- _____ are _____ herbivores, meaning _____

8. The _____ from Beginning to End
- The _____ as the horse _____
 - Horse teeth are designed _____ and
_____ with _____
 - This _____ the _____
while making it easier to _____ the _____ the

 - Through this process, a _____ will _____
the _____

- The _____ of a horse is _____; it can only _____
_____ - _____ of _____
- In fact, a _____ has the _____
_____ of any _____
_____ to its _____

- _____ for the _____ is the

- While the _____ is _____ the
_____ (_____), it is _____,
_____, and slowly _____ the

- Very _____ is _____
_____ the _____
- The _____ of the horse is about _____

- _____, _____, and _____ are
_____ the _____

- Due to the _____
_____, many are _____
the _____
- Food _____ the _____

- On average, it takes _____
_____ the _____
_____ to _____ the _____
- Once the _____ it _____
_____, it is _____ the _____
_____ or what is _____ as

- The _____ is _____ a _____
_____ where _____

- This _____ is _____

- The _____
_____ what _____
_____ is _____ the

- For example, if the _____ is _____, then _____ is _____ to _____ the _____
- From here, the _____ to the _____, then _____ the _____, and finally out the _____
- This _____ can _____ - _____

9. _____ the _____?

- The _____ is _____ that _____
- _____ are _____ that _____ of _____
- There are _____ that _____ this _____

10. The _____ and _____

- _____ the _____ and _____ an _____
- _____ and _____
- _____ and _____
- _____ acids as well as _____ and _____

How do these Systems Work? – Answer Key

Directions: As you watch the slide presentation, fill in the blanks.

1. **Skeletal System**

- Consists of bones, cartilages, and ligaments
- The framework that supports and protects all the other body systems of the horse
- Horses have 205 bones

2. **Not All Bones Are the Same**

- The skeleton is made up of different shaped bones; each shape has a purpose
- Long bones provide support like columns, allowing the animal to move
- Short bones are shaped like cubes and in joints; they protect the body from friction and impacts
- Flat bones protect the organs of the animal, including the heart, lungs, and brain

3. **What Keeps the Bones Together?**

- The skeletal system is held together in three ways:
 - Joints occur where two or more bones meet
 - Ligaments are bands of connective tissue that keep bones together
 - Tendons are thick bands that connect bone and muscle

4. **Function of Muscular System**

- Muscles allow the body to move
- Muscles can be either voluntary or involuntary
- Voluntary are controlled by the animal, such as those in your hand that allow you to write
- Involuntary muscles are not controlled, such as the heart

5. **3 Types of Muscle**

- Smooth muscles are involuntary and found in the walls of internal organs
- Cardiac muscles are involuntary and make up the heart
- Skeletal muscles are voluntary and attached to the bones, aiding in movement

6. **How Does the Digestive System Work?**

- The digestive system breaks food down into small molecules so that the body can get nutrition from the food
- The digestive system includes:
 - Mouth
 - Tongue
 - Pharynx
 - Esophagus
 - Stomach
 - Small intestine
 - Large intestine
 - Anus

7. The Monogastric Herbivore

- Horses are monogastric herbivores, meaning they have one chambered stomach

8. The Journey of Food from Beginning to End

- The food journey begins as the horse eats
- Horse teeth are designed to crush grass and mix it with saliva
- This starts the digestive process while making it easier to move the food down the digestive tract
- Through this process, a bolus will form and move into the stomach
- The stomach of a horse is small; it can only hold 2-4 gallons of material
- In fact, a horse has the smallest stomach of any domesticated animal compared to its overall size
- Another name for the stomach is the foregut
- While the chewed food is in the foregut (stomach), it is mixed, stored, and slowly released into the small intestine
- Very little nutrition is absorbed through the stomach
- The small intestine of the horse is about 70 feet long
- Starch, protein, and fat are absorbed through the small intestines
- Due to the seed coating on cereal grains, many are incompletely broken down in the small intestine
- Food moves quickly through the small intestine
- On average, it takes 45 minutes for processed feed in the small intestine to reach the cecum
- Once the feed makes it to the cecum, it is now in the large intestine or what is referred to as hindgut
- The cecum is like a fermentation vat where microbial digestion occurs
- This means fiber is broken down more
- The type of feed consumed will determine what type of microbial population is in the large intestine

- For example, if the diet is high in starch, then amylolytic bacteria is present to break down the starch
- From here, the processed feed goes to the large colon, then to the small colon, and finally out the rectum
- This process can take 1-3 days

9. What Does the Endocrine System Do?

- The endocrine system is made up of glands that produce hormones
- Hormones are chemicals that control different types of bodily functions
- There are four glands that create this system

10. The Glands and Their Functions

- Hypothalamus gland controls the pituitary gland and makes an antidiuretic hormone
- Pituitary gland makes amino acids and releases growth hormone
- Thyroid gland creates amino acids and encourages growth along with metabolism
- Adrenal gland makes amino acids as well as releases epinephrine and norepinephrine

Lesson Five – Horse Body Systems

REVIEW: Recap of Horse Body Systems

10 minutes

Purpose:

Participants work in groups to complete a quiz, testing their knowledge of horse body systems.

Materials:

- Horse whiteboard
- *Horse Body Systems Quiz*
- *Horse Body Systems Quiz – Answer Key*

Facilitation Steps:

1. Have participants pair up.
2. Distribute the whiteboards.
3. Instruct participants on how to review the body systems using the whiteboards and give them five minutes to work.
4. Collect the whiteboards and have participants return to their seats.
5. Distribute the quiz and give participants directions on how to fill it out.
6. After five minutes, collect the quiz.

Name: _____ Class: _____

Horse Body Systems Quiz

1. Using the organs listed, put the digestive tract in order.

Stomach, small intestine, large intestine, mouth, tongue, anus, pharynx, esophagus

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.
- 8.

Directions: Circle the correct answer.

1. The type of food a horse eats will control the type of microbial bacteria in the digestive system. True or False
2. A horse has 255 bones. True or False
3. Muscles can be broken down into categories that describe how they are controlled. This includes voluntary, involuntary, and stationary types. True or False
4. Another name for the stomach of a horse is the pregut. True or False
5. The seed coat on cereal grains are easily broken down by the horse's digestive tract. True or False
6. The skeletal system consists of bones, hormones, and glands. True or False
7. Ligaments are thick bands that connect bone and muscle. True or False
8. Short bones are shaped like cubes and are found in joints. True or False
9. The glands of the endocrine system produce red blood cells. True or False
10. There are five different shapes of bones. True or False
11. A horse is considered a polygastric carnivore because they sometimes eat bugs. True or False

12. Smooth muscle covers the inside of the internal organs. True or False
13. Cecum in a horse acts like a fermentation vat where microbial digestion occurs. True or False
14. Another name for the large intestine is the hindgut. True or False
15. Flat bones in the legs allows a horse to run quickly. True or False
16. The stomach of a horse is the largest of domesticated animals compared to its size. True or False
17. All the nutrition that the horse consumes is absorbed in the stomach. True or False
18. Hormones are produced by the endocrine system. True or False
19. Tendons are bands of connective tissue that keep bones together. True or False
20. Smooth muscles are involuntary. True or False

Equine Body Systems Quiz – Answer Key

1. Using the organs listed, put in order the digestive tract.

Stomach, small intestine, large intestine, mouth, tongue, anus, pharynx, esophagus

- 1) Mouth
- 2) Tongue
- 3) Pharynx
- 4) Esophagus
- 5) Stomach
- 6) Small intestine
- 7) Large intestine
- 8) Anus

Directions: Circle the correct answer.

1. The type of food a horse eats will control the type of microbial bacteria in the digestive system. **True** or False
2. A horse has 255 bones. True or **False**
3. Muscles can be broken down into categories that describe how they are controlled. This includes voluntary, involuntary, and stationary types. True or **False**
4. Another name for the stomach of a horse is the pregut. True or **False**
5. The seed coat on cereal grains are easily broken down by the horse's digestive tract. True or **False**
6. The skeletal system consists of bones, hormones, and glands. True or **False**
7. Ligaments are thick bands that connect bone and muscle. **True** or False
8. Short bones are shaped like cubes and are found in joints. **True** or False
9. The glands of the endocrine system produce red blood cells. True or **False**
10. There are five different shapes of bones. True or **False**
11. A horse is considered to be a polygastric carnivore because they sometimes eat bugs. True or **False**
12. Smooth muscle covers the inside of the internal organs. **True** or False
13. Cecum in a horse acts like a fermentation vat where microbial digestion occurs. **True** or False
14. Another name for the large intestine is the hindgut. **True** or False
15. Flat bones in the legs is what allows a horse to run quickly. True or **False**
16. The stomach of a horse is the largest of domesticated animals compared to its size. **True** or False
17. All the nutrition that the horse consumes is absorbed in the stomach. True or **False**

Horse Kit Curriculum

18. Hormones are produced by the endocrine system. **True** or False
19. Tendons are bands of connective tissue that keep bones together. **True** or False
20. Smooth muscles are involuntary. True or **False**

Lesson Six – Horse Selection and Judging

Lesson Overview

Participants will learn the importance of proper selection of horses and the basic principles and terminology used in equine judging.

Lesson Objectives

After completing this lesson, participants will be able to:

- Define conformation when it comes to judging
- List the order of conformation
- Describe what is looked for in the loin
- Describe what the ideal rib looks like
- Describe what is looked for when it comes to the tailhead
- Describe what a grade 5 wither looks and feels like
- Describe what characteristics are desired for the neck and shoulders
- Define the meaning of different overall grades
- Define what balance is evaluating and how it's evaluated
- Describe why the location of the head is important to balance
- Define what structural correctness is
- Describe what “camped out” and “camped under” mean
- Define calf and buck kneed
- Define cow hocked and bow legged
- Describe what way of going is and how it's judged
- List the two things that are looked for when judging muscling
- List the five criteria used in physically judging a horse
- Explain how breed and sex play a role in judging
- List the types of gaits
- Define natural and artificial gaits
- Explain how a professional horse show is judged

Lesson at a Glance

Activity	Materials	Preparation	Approximate class time
FOCUS	• <i>Intro to Horse Judging Terms</i> worksheet • <i>Intro to Horse Judging Terms – Answer Key</i>	1. Print/photocopy <i>Intro to Horse Judging Terms</i> worksheet (one per participant)	10 minutes
LEARN	• <i>Horse Selection and Judging</i> slide presentation • <i>Selecting and Judging Horses</i> worksheet • <i>Selecting and Judging Horses – Answer Key</i>	1. Print/photocopy <i>Selecting and Judging Horses</i> worksheet (one per participant) 2. Prepare <i>Horse Selection and Judging</i> slide presentation for viewing	40 minutes
REVIEW	• Horse Judging Poster • <i>Horse Judging Quiz</i> • <i>Horse Judging Quiz – Answer Key</i>	1. Prepare the Horse Judging Poster 2. Print/photocopy <i>Horse Judging Quiz</i> (one per participant)	10 minutes

Lesson Six – Horse Selection and Judging

FOCUS: Intro to Horse Selection and Judging

10 minutes

Purpose:

Participants will be introduced to terms used in horse judging by first pairing up to fill out the worksheet. Participants and educator will then go over the answers together

Materials:

- *Intro to Horse Judging Terms* worksheet
- *Intro to Horse Judging Terms – Answer Key*

Facilitation Steps:

1. Have participants pair up.
2. Distribute the worksheet and explain how to fill it out.
3. Give participants five minutes to fill the worksheet out.
4. Have participants go back to their seats and trade papers.
5. Read the answers while participants grade the worksheet.
6. Collect the worksheet.

Name: _____ Class: _____

Intro to Horse Judging Terms

Directions: Unscramble the words on the right and place the answer in the blank on the left.

1. _____ exs scisterictracah

2. _____ uretcrust

3. _____ plogypoih

4. _____ rofmanoconit

5. _____ lancabe

6. _____ scumling

7. _____ rebed teristicscarahc

Intro to Horse Judging Terms – Answer Key

Directions: Unscramble the words on the right and place the answer in the blank on the left.

- | | |
|-----------------------------|-----------------------|
| 1. sex characteristics | exs scisterictracah |
| 2. structure | uretcrust |
| 3. hippology | plogypoih |
| 4. conformation | rofmanoconit |
| 5. balance | lancabe |
| 6. muscling | scumling |
| 7. breed characteristics | rebed teristicscarahc |

Lesson Six – Horse Selection and Judging

LEARN: Horse Selection and Judging

40 minutes

Purpose:

Participants will learn the basics of several types of horse selection and judging competitions.

Materials:

- *Horse Selection and Judging* slide presentation
- *Selecting and Judging Horses* worksheet
- *Selecting and Judging Horses* – Answer Key

Facilitation Steps:

1. Set up the slide presentation and distribute the worksheet.
2. Explain how to fill out the worksheet and start the presentation.
3. Once the presentation is completed, collect the worksheet.

Slide 1: Title slide

Slide 2: Proper Selection of Horses Runs Deeper Than Beauty

Slide 3: The Beginning Process of Selection

- Selecting a horse for competition begins with understanding the use and/or type of judging in the competition
- This first criteria is referred to as conformation or what some call conditioning
- This entails looking at the health of the animal in a particular order

Slide 4: Conformation

- Conformation is essentially looking at how a horse's body has accumulated fat
- This evaluation occurs in a set order that combines both observation and palpation in six areas:
 - Loin
 - Ribs
 - Tailhead

- Withers
- Neck
- Shoulders

- These areas should be evaluated in order
- Each of these areas are given a number between 1 and 9
- The smaller the number, the thinner the horse is in that area
- Keep in mind that this grade is not breed related

Slide 5: Loin Evaluation

- A horse lacking a crease down the back is considered thin while a horse with a substantial crease is considered fat
- The equine's body first sends fat to protect organs, and the spine area is one of the last locations that fat settles
- In doing so, the best loin grading comes from a slight crease in this area

Slide 6: Ribs

- Look at the ribs and then place your hand on the ribcage
- A thin horse will have ribs that are easily seen and felt
- A horse that is a 5 will have ribs that can be seen
- When felt, the ribs have a springy feel to them; this is where a fat layer is located
- Past a 5 rating, the ribs can no longer be easily seen or felt

Slide 7: Tailhead

- A horse graded up to a 3 is considered thin because the tailhead is easily seen and no fat is felt
- Past a grade 3, the tailhead will fill with fat and can be palpated
- If a horse is graded closer to a 9, then the fat around the tailhead will begin to bulge and can easily be felt

Slides 8-9: Withers

- Withers is one of the evaluating factors that can be different from one breed to another
- A grade 5 wither will look and feel rounded
- A grade less than 5 indicates that the horse is thin
- If you can clearly see and feel the under structures that make up the withers, then the horse is too thin or a 1
- A horse that has a grade above 5 has too much fat over the withers
- The proper roundness of the withers is hidden, and the fat layer can be felt

Slide 10: Neck

- If you can see the neck structures and the throatlatch is trim, the neck is considered thin
- As fat is deposited on the neck, the top of the neck will begin to fill out
- A grade 8 throat will be filled out all the way around
- Fat can easily be seen and felt along the crest and throatlatch
- A grade 8 is desired; 9 is considered too fat

Slide 11: Shoulders

- There is no set score that indicates the shoulders of a horse are ideal
- The key to this evaluation is where and how much fat is covering the shoulder area
- If the shoulders are sticking out and can easily be felt, then the score will be lower
- The ideal shoulders can be seen but you can feel a layer of fat
- A horse that has a fat layer behind the shoulder and/or around the elbow is considered obese, which would equate to a grade 8 or 9

Slides 12-13: The Goal of Conformation/Conditioning

- The overall grade goal is a 5, but this should not tell the whole story
- A horse that scores less than 5 will be classified as thin, which has its own health problems
- A score over 5 can be an indication that the horse is too fat, which also can cause health issues
- As with humans, some horses are completely healthy a bit heavier
- The key to this evaluation, is determining how healthy the horse is according to fat covering certain areas of its body

Slides 14-16: Balance

- As the name implies, balance in horse judging is defined as the evaluation of the bone structure
- An unbalanced horse does not have quality of movement and/or performance in an event
- Balance is evaluated by seeing if the muscles are equally distributed and how well the animal carries weight
- While angles are looked at as far as how balanced the muscles are, weight is evaluated from the front to the back, top to bottom, and side to side
- All factors of balance are important, but the head is one of the most important because it acts like a pendulum as the horse walks
- A head too small or too large will change the balance of the horse
- To have good balance, the neck needs to be the proper length, and the head needs to be proportionate to the body size
- If the head and neck are the proper size, then it will help balance the rest of the body
- A standard horse's head weighs 40 pounds

Slides 17-21: Structural Correctness

- Structural correctness is the evaluation of the structure and position of the leg bones
- The front legs are examined from the front and side
- When looking at the legs from the front, you should be able to draw an imaginary line from the shoulder and down the middle of the leg
- The hoof and knee should face forward and line up
- The hoof should not be any wider than the leg
- This line drawn from the shoulder down the leg should be done from the side
- Ideally the line will go directly through the middle of the leg
- If the side view shows a problem, it is either camped out or camped under
- Camped out legs are front legs that are too far apart and forced forward
- Camped under legs are front legs that are too far apart and underneath the horse
- Knees also need to be examined from the side
- If the line does not go through the knee, then the horse is either calf kneed or buck kneed
- A calf knee is a knee that appears to bend backwards
- A buck knee appears to be bent all the time
- When looking at the hind legs, stand behind the horse and draw a line from the buttock down to the hooves
- The line should go down the middle of the leg
- A horse that passes this evaluation can either be cow hocked (narrow based) or bow legged (wide based)
- Cow hocked, or narrow based, is a horse whose back legs are too close together
- Bow legged, or wide based, is a horse with hind legs that are too wide apart
- The lower leg also needs to be examined
- This includes looking at the pastern angle and hoof angle; ideally both angles are the same

Slides 22-24: Way of Going

- This is an evaluation of how well the horse runs
- In general, if the horse has no problems, then they will do fine in this category
- On the other hand, if their legs are not structurally correct, then their walking and running will not be correct
- Viewing the horse from the front and back allows one to evaluate the footfall
- Evaluate the horse from the side to determine stride length and quality
- The level of importance for stride length and quality is determined by breed and discipline

Slides 25-26: Muscling

- Muscling is the evaluation of the quality and quantity of muscle
- There is a breed standard
- Certain points are evaluated:
 - Chest and forearm
 - Loin
 - Stifle
 - Gaskin
- For most breeds, a deep pectoral “V” in the chest area is desirable
- There should be no muscle bunching on the animal; muscles should be well defined
- The muscles in the forearm and gaskin area should be long and smooth

Slides 27-28: Breed and Sex Characteristics

- Each breed and sex has its own standard that needs to be used during judging
- For example, a racehorse would need thin, long legs for speed and a strong back
- Harness racing requires long legs for speed and the physical characteristics for pulling
- Steeplechase requires a strong back and long, muscular legs
- A draft horse is expected to have very muscular legs and chest
- This is where the use of the animal comes into play when it comes to a standard

Slide 29: Judging Physical Characteristics and Gaits

- Unlike other animal shows, a horse's ability to perform is also judged
- In this case, not only is the horse's physical breed standard judged but also the gaits that the breed is supposed to know

Slides 30-31: Types of Gaits

- Gaits in the horse industry are loosely described as how the horse moves
- A natural gait is one that the horse naturally does without training
- An artificial gait is one that the horse is trained to do
- Natural gaits include:
 - Walk
 - Trot
 - Canter
 - Gallop
 - Back
- Artificial gaits include:
 - Running walk
 - Slow gait
 - Pace
 - Rack

Slide 32: How a Horse Show Is Judged

Slide 33: Professional Horse Show Standards

- This type of horse show is not one that is judged by FFA, 4-H, or any youth organization but kids do compete
- There is a uniform required for this type of show
- Sometimes it is a costume normally worn for that breed
- Other times, it is formal wear, such as a suit or dress

- In general, horses enter the ring and are told what gait to use by an announcer
- A judge is in the middle of the ring evaluating the gaits
- After gait evaluation is complete, the horses line up so that the judge(s) can evaluate the physical aspects of the horse breed

Slide 35: Gait Evaluation

- Gait evaluation is different when compared to physical traits, but they are connected
- The evaluation includes directness or straightness of footfall, length of stride, and snap and flexion
- In this type of judging, both the physical and gait are used to decide rank order of horses

Slide 36: Horse Show Ranking

- Unlike evaluation of physical standards, a professional horse show ranks horses from the best in class to the worst
- This ranking is read out while the rider directs the horse to get the ribbon
- Sometimes these professional horse shows are not only arranged by breed but also by age of horse
- When a horse breed is judged by age groups, the Grand Champion of each age group compete for the overall Grand Champion of the breed

Slide 34: The Showing Process

Name: _____

Class: _____

Selecting and Judging Horses

Directions: As you watch the slide presentation, fill in the blanks of the worksheet.

1. The _____

- _____ a _____ for _____
with _____ the _____ / _____
_____ in the competition
- This _____ is _____ as
_____ what _____

- This entails _____ the _____ the
_____ a _____

2. _____

- _____ is essentially _____ a

- This _____ in a _____ that
combines _____ and _____ in

○ Loin
○ _____
○ Tailhead
○ _____
○ Neck
○ _____
- These areas should be _____
- Each of these _____ are _____ a _____

- The _____ the _____, the _____ the _____
_____ that _____
- Keep in mind that this grade is not breed related

3. _____
- A _____ a _____ the _____ is _____ while a horse with a _____ is _____
 - The equine's _____ to _____, and the _____ is _____ of the _____ that _____
 - In doing so, the _____ comes from a _____ this _____
4. _____
- _____ the _____ and then _____ your _____ the _____
 - A _____ will _____ that are _____
 - A _____ that is a _____ will _____ that can _____
 - _____, the _____ have a _____ to them; this is _____ a _____ is _____
 - _____ a _____, the _____ can _____ be _____
5. _____
- A _____ a _____ is _____ because the _____ is _____ and _____ is _____
 - _____ a _____, the _____ will _____ and can _____
 - If a horse is _____ a _____, then the _____ the _____ will _____ and can _____ be _____
6. _____
- _____ is one of the _____ that can be _____
 - A grade _____ wither will _____ and feel _____

- A _____ than _____ that the _____
- If you can _____ the _____
_____ that _____ the _____,
the _____ is _____
- A horse that has a _____ has _____
_____ over the withers
- The proper _____ the withers is _____, and the
_____ can _____

7. _____

- If you can see the _____ structures and the _____ is
_____, the neck is _____
- As _____ is _____ the _____, the _____ the
_____ will _____ to _____
- A _____ will be filled out _____ the way

- _____ can _____ be _____ and _____ the

- A _____ is _____; _____ is considered _____

8. _____

- There is _____ that _____ the
_____ of a horse are _____
- The _____ to this _____
_____ is _____ the _____
- If the _____ are _____ and can
_____ be _____, then the _____ will be _____
- The _____ can _____
_____ you _____ a layer of _____
- _____ that has a _____ the
_____/_____ the _____ is
_____, which would _____ a _____

9. The _____/_____

- The _____ is a _____, but this should
_____ the _____

- A _____ that scores _____ will be _____ as _____, which has its own _____
- A score _____ can be an indication that the _____ is _____, which also can _____
- As with humans, _____ horses are completely _____ a _____
- The _____ to this _____ is _____ the horse is _____ of its _____

10. _____

- As the _____, _____ in _____ the _____ is _____ as the _____ the _____
- An _____ have _____ and/or _____ in an event
- _____ is _____ by _____ the _____ are _____ and _____ the _____
- While _____ are _____ as far as _____ the _____, _____ is _____ the _____, and _____
- _____ of _____ are _____, but the _____ is _____ of the _____ because it _____ as the _____
- A head _____ will _____ the _____ the _____
- To have _____, the _____ to be the _____, _____ the _____ to be _____ to the _____
- If the _____ are the _____, then it _____ the _____
- A _____

11. _____
- _____ is the _____ the _____ of the _____
 - The _____ are _____ the _____
 - When _____ at the _____ the _____, you should be _____ to draw an imaginary _____ the _____ and _____ the _____ the _____
 - The _____ should face _____ and _____
 - The _____ should _____ any _____ the _____
 - This _____ the _____ the _____ should be done _____ the _____
 - Ideally the _____ will _____ the _____ the _____
 - If the _____ a _____, it is either _____
 - _____ are _____ that are _____
 - _____ are _____ that are _____ and _____ the _____
 - _____ also need to be _____ the _____
 - If the _____ the _____, then the horse is _____
 - A _____ is a _____ that _____ to _____
 - A _____ to be _____ the _____
 - When _____ at the _____, _____ the _____ the _____ the _____
 - The _____ should _____ the _____ the _____
 - A _____ that _____ this _____ can _____ (_____) _____ (_____)
 - _____, _____, is a horse whose _____
 - _____, _____, is a horse with _____ that are _____

- The _____ also needs to be _____
- This includes _____ the _____
_____; _____ both _____ are the

12. _____

- This is an _____ of _____ the _____
- In general, if the horse has _____, then they will _____
in this category
- On the other hand, if their _____ are _____
_____, then their _____
and _____
- _____ the horse from the _____
_____ one to _____ the _____
- _____ the _____
to determine stride _____
- The _____ for stride _____
_____ is _____ by _____

13. _____

- _____ is the _____ of the _____

- There is a _____
- _____ are _____:
 - _____
 - Loin
 - _____
 - _____
- For _____, a _____
_____ the _____ is _____
- _____ be no muscle bunching on the _____;
_____ be well _____
- The _____ the _____
_____ should be _____

14. _____

- _____ has its _____ that needs
to be _____
- For _____, a _____ would need _____,
_____ and a _____

- _____ requires _____ for _____ and the _____
- _____ a _____, _____
- A _____ is expected _____ and _____
- This is _____ the _____ of the animal _____ when it comes _____

15. _____

- _____, a _____ is _____
- In this case, _____ is the _____ but _____ the _____ that the _____ supposed to _____

16. _____

- _____ in the horse industry are loosely _____ the _____
- A _____ is one that the _____ without training
- An _____ is one that the _____ is _____
- _____ include:
 - _____
 - _____
 - _____
 - _____
 - _____
- _____ include:
 - _____
 - _____
 - _____
 - _____

17. _____
- This _____ is _____ that is _____, 4-H, or _____ but _____
 - There is a _____ this _____
 - _____ it is a _____ that _____
 - _____, it is _____, _____ a _____ or _____

18. The _____
- In general, _____ the _____ and _____ an _____
 - A _____ is _____ the _____ of the _____ the _____
 - _____ is _____, the _____ so that the _____ the _____ of the _____

19. _____
- _____ is _____ when _____, but they _____
 - The _____ or _____ of _____, _____, and _____
 - In this _____, both the _____ are used to _____

20. Horse _____
- _____ of _____, a _____ horses _____ the _____ the _____
 - This _____ is _____ the _____ the _____ to _____ the _____
 - Sometimes these _____ are not only _____ but also _____ of _____

- When a horse breed is _____, the
_____ of _____
_____ the _____
_____ the _____

Selecting and Judging Horses – Answer Key

Directions: As you watch the slide presentation, fill in the blanks of the worksheet.

1. The Beginning Process of Selection

- Selecting a horse for competition begins with understanding the use and/or types of judging in the competition
- This first criteria is referred to as conformation or what some call conditioning
- This entails looking at the health of the animal in a particular order

2. Conformation

- Conformation is essentially looking at how a horse's body has accumulated fat
- This evaluation occurs in a set order that combines both observation and palpation in six areas:
 - Loin
 - Ribs
 - Tailhead
 - Withers
 - Neck
 - Shoulders
- These areas should be evaluated in order
- Each of these areas are given a number between 1 and 9
- The smaller the number, the thinner the horse is in that area
- Keep in mind that this grade is not breed related

3. Loin Evaluation

- A horse lacking a crease down the back is considered thin while a horse with a substantial crease is considered fat
- The equine's body first sends fat to protect organs, and the spine area is one of the last locations that fat settles
- In doing so, the best loin grading comes from a slight crease in this area

4. Ribs

- Look at the ribs and then place your hand on the ribcage
- A thin horse will have ribs that are easily seen and felt
- A horse that is a 5 will have ribs that can be seen
- When felt, the ribs have a springy feel to them; this is where a fat layer is located
- Past a 5 rating, the ribs can no longer be easily seen or felt

5. Tailhead

- A horse graded up to a 3 is considered thin because the tailhead is easily seen and no fat is felt
- Past a grade 3, the tailhead will fill in with fat and can be palpated
- If a horse is graded closer to a 9, then the fat around the tailhead will begin to bulge and can easily be felt

6. Withers

- Withers is one of the evaluating factors that can be different from one breed to another
- A grade 5 wither will look and feel rounded
- A grade less than 5 indicates that the horse is thin
- If you can clearly see and feel the under structures that make up the withers, then the horse is too thin or a 1
- A horse that has a grade above 5 has too much fat over the withers
- The proper roundness of the withers is hidden, and the fat layer can be felt

7. Neck

- If you can see the neck structures and the throatlatch is trim, the neck is considered thin
- As fat is deposited on the neck, the top of the neck will begin to fill out
- A grade 8 throat will be filled out all the way around
- Fat can easily be seen and felt along the crest and throatlatch
- A grade 8 is desired; 9 is considered too fat

8. Shoulders

- There is no set score that indicates the shoulders of a horse are ideal
- The key to this evaluation is where and how much fat is covering the shoulder area
- If the shoulders are sticking out and can easily be felt, then the score will be lower
- The ideal shoulders can be seen but you can feel a layer of fat
- A horse that has a fat layer behind the shoulder and/or around the elbow is considered obese, which would equate to a grade 8 or 9

9. The Goal of Conformation/Conditioning

- The overall grade goal is a 5, but this should not tell the whole story
- A horse that scores less than 5 will be classified as thin, which has its own health problems
- A score over 5 can be an indication that the horse is too fat, which also can cause health issues
- As with humans, some horses are completely healthy a bit heavier
- The key to this evaluation is determining how healthy the horse is according to fat covering certain areas of its body

10. Balance

- As the name implies, balance in horse judging is defined as the evaluation of the bone structure
- An unbalanced horse does not have quality of movement and/or performance in an event
- Balance is evaluated by seeing if the muscles are equally distributed and how well the animal carries weight
- While angles are looked at as far as how balanced the muscles are, weight is evaluated from the front to the back, top to bottom, and side to side
- All factors of balance are important, but the head is one of the most important because it acts like a pendulum as the horse walks
- A head too small or too large will change the balance of the horse
- To have good balance, the neck needs to be the proper length, and the head needs to be proportionate to the body size
- If the head and neck are the proper size, then it will help balance the rest of the body
- A standard horse's head weighs 40 pounds

11. Structural Correctness

- Structural correctness is the evaluation of the structure and position of the leg bones
- The front legs are examined from the front and side
- When looking at the legs from the front, you should be able to draw an imaginary line from the shoulder and down the middle of the leg
- The hoof and knee should face forward and line up
- The hoof should not be any wider than the leg
- This line drawn from the shoulder down the leg should be done from the side
- Ideally the line will go directly through the middle of the leg
- If the side view shows a problem, it is either camped out or camped under
- Camped out legs are front legs that are too far apart and forced forward
- Camped under legs are front legs that are too far apart and underneath the horse
- Knees also need to be examined from the side
- If the line does not go through the knee, then the horse is either calf kneed or buck kneed
- A calf knee is a knee that appears to bend backwards
- A buck knee appears to be bent all the time
- When looking at the hind legs, stand behind the horse and draw a line from the buttock down to the hooves
- The line should go down the middle of the leg
- A horse that passes this evaluation can either be cow hocked (narrow based) or bow legged (wide based)
- Cow hocked, or narrow based, is a horse whose back legs are too close together
- Bow legged, or wide based, is a horse with hind legs that are too wide apart
- The lower leg also needs to be examined
- This includes looking at the pastern angle and hoof angle; ideally both angles are the same

12. Way of Going

- This is an evaluation of how well the horse runs
- In general, if the horse has no problems, then they will do fine in this category
- On the other hand, if their legs are not structurally correct, then their walking and running will not be correct
- Viewing the horse from the front and back allows one to evaluate the footfall
- Evaluate the horse from the side to determine stride length and quality
- The level of importance for stride length and quality is determined by breed and discipline

13. Muscling

- Muscling is the evaluation of the quality and quantity of muscle
- There is a breed standard
- Certain points are evaluated:
 - Chest and forearm
 - Loin
 - Stifle
 - Gaskin
- For most breeds, a deep pectoral "V" in the chest area is desirable
- There should be no muscle bunching on the animal; muscles should be well defined
- The muscles in the forearm and gaskin area should be long and smooth

14. Breed and Sex Characteristics

- Each breed and sex has their own standard that needs to be used during judging
- For example, a racehorse would need thin, long legs for speed and a strong back
- Harness racing requires long legs for speed and the physical characteristics for pulling
- Steeplechase requires a strong back and long, muscular legs
- A draft horse is expected to have very muscular legs and chest
- This is where the use of the animal comes into play when it comes to a standard

15. Judging Physical Characteristics and Gaits

- Unlike other animal shows, a horse's ability to perform is also judged
- In this case, not only is the horse's physical breed standard judged but also the gaits that the breed is supposed to know

16. Types of Gaits

- Gaits in the horse industry are loosely described as how the horse moves
- A natural gait is one that the horse naturally does without training
- An artificial gait is one that the horse is trained to do
- Natural gaits include:
 - Walk
 - Trot

- Canter
- Gallop
- Back
- Artificial gaits include:
 - Running walk
 - Slow gait
 - Pace
 - Rack

17. Professional Horse Show Standards

- This type of horse show is not one that is judged by FFA, 4-H, or any youth organization but kids do compete
- There is a uniform required for this type of show
- Sometimes it is a costume normally worn for that breed
- Other times, it is formal wear, such as a suit or dress

18. The Showing Process

- In general, horses enter the ring and are told what gait to use by an announcer
- A judge is in the middle of the ring evaluating the gaits
- After gait evaluation is complete, the horses line up so that the judge(s) can evaluate the physical aspects of the horse breed

19. Gait Evaluation

- Gait evaluation is different when compared to physical traits, but they are connected
- The evaluation includes directness or straightness of footfall, length of stride, and snap and flexion
- In this type of judging, both the physical and gait are used to decide rank order of horses

20. Horse Show Ranking

- Unlike evaluation of physical standards, a professional horse show ranks horses from the best in class to the worst
- This ranking is read out while the rider directs the horse to get the ribbon
- Sometimes these professional horse shows are not only arranged by breed but also by age of horse
- When a horse breed is judged by age groups, the Grand Champion of each age group compete for the overall Grand Champion of the breed.

Lesson Six – Horse Selection and Judging

REVIEW: Recap of Horse Selection and Judging

10 minutes

Purpose:

Participants will review the material by looking at a poster and taking quiz.

Materials:

- Horse Judging Poster
- *Horse Judging Quiz*
- *Horse Judging Quiz – Answer Key*

Facilitation Steps:

1. Hang the poster up and direct participants to review the information for five minutes.
2. After five minutes have passed, remove or cover the poster and distribute the quiz.
3. Provide directions on how to complete the quiz and give participants five minutes to work on it.
4. After five minutes have passed, collect the quizzes.

Name: _____ Class: _____

Horse Judging Quiz

Directions: After reading each statement, determine whether it is true or false and circle your answer.

1. Horses have to be taught all gaits. True or False
2. When horses are judged, the breed of horse is not considered. True or False
3. When judging for conformation, there is a set order that must be followed. True or False
4. A horse that is unbalanced will not perform well in competition. True or False
5. The term of “way of going” is used to indicate how well a horse can find their way to the barn. True or False
6. There are five criteria used during the physical judging process. True or False
7. There are nine types of gaits that horses can perform. True or False
8. During a professional horse show, only the physical characteristics are judged. True or False
9. The breed of horse is not considered during a professional horse show. True or False
10. During a professional horse show, horses can be broken into groups by age. True or False
11. When evaluating muscling, the quality and quantity of the muscles are observed. True or False
12. Judging a horse from the front and back will allow one to judge footfall. True or False
13. Cow hocked, or narrow based, means the horse’s hoofs are too far apart. True or False
14. A buck kneed horse has brown knees. True or False
15. Structural correctness is an evaluation of the leg bones. True or False
16. When evaluating balance, the position of the horse’s head is not important. True or False
17. Knees are judged by observing the horse from the side. True or False
18. The areas of the horse that are looked at when judging muscling include the chest and forearm, loin, stifle, and gaskin. True or False
19. When judging muscles, muscles that bunch are preferred. True or False
20. When a judge is evaluating the physical characteristics of a horse, they use a numerical grading system that measures the health of the horse. True or False

Horse Judging Quiz – Answer Key

Directions: After reading each statement, determine whether it is true or false and circle your answer.

1. Horses have to be taught all gaits. True or **False**
2. When horses are judged, the breed of horse is not considered. True or **False**
3. When judging for conformation, there is a set order that must be followed. **True** or False
4. A horse that is unbalanced will not perform well in competition. **True** or False
5. The term of “way of going” is used to indicate how well a horse can find their way to the barn. True or **False**
6. There are five criteria used during the physical judging process. **True** or False
7. There are nine types of gaits that horses can perform. **True** or False
8. During a professional horse show, only the physical characteristics are judged. True or **False**
9. The breed of horse is not considered during a professional horse show. True or **False**
10. During a professional horse show, horses can be broken into groups by age. **True** or False
11. When evaluating muscling, the quality and quantity of the muscles are observed. **True** or False
12. Judging a horse from the front and back will allow one to judge footfall. **True** or False
13. Cow hocked, or narrow based, means the horse’s hoofs are too far apart. True or **False**
14. A buck kneed horse has brown knees. True or **False**
15. Structural correctness is an evaluation of the leg bones. **True** or False
16. When evaluating balance, the position of the horse’s head is not important. True or **False**
17. Knees are judged by observing the horse from the side. **True** or False
18. The areas of the horse that are looked at when judging muscling include chest and forearm, loin, stifle, and gaskin. **True** or False
19. When judging muscles, muscles that bunch are preferred. True or **False**
20. When a judge is evaluating the physical characteristics of a horse, they will use a numerical grading system that measures the health of the horse. **True** or False

Lesson Seven – Marketing, Careers, and Training

Lesson

Participants will be introduced to some diverse careers found in the equine industry through a slide presentation and individual research.

Lesson Objectives

After completing this lesson, participants will be able to:

- List five careers involved in the equine industry
- Describe one career that does not require a college degree
- Describe one career that does require a college degree
- Describe the requirements of the career the participant finds most unique

Lesson at a Glance

Activity	Materials	Preparation	Approximate class time
FOCUS	• <i>Intro to Careers in the Equine Industry</i> worksheet • <i>Intro to Careers in the Equine Industry – Answer Key</i>	1. Print/photocopy <i>Intro to Careers in the Equine Industry</i> worksheet (one per participant)	10 minutes
LEARN	• <i>Careers in the Equine Industry</i> slide presentation • <i>Careers in the Equine Industry</i> worksheet • <i>Careers in the Equine Industry – Answer Key</i>	1. Print/photocopy <i>Careers in the Equine Industry</i> worksheet (one per participant) 2. Prepare <i>Careers in the Equine Industry</i> slide presentation for viewing	40 minutes
REVIEW	• <i>Career Exploration Graphic Organizer</i> • <i>Horse Career Quiz</i> • <i>Horse Career Quiz – Answer Key</i>	1. Print/photocopy <i>Horse Careers Quiz</i> (one per participant) 2. Print/photocopy <i>Career Exploration Graphic Organizer</i> (one per participant)	10 minutes

Lesson Seven – Marketing, Careers, and Training

FOCUS: Intro to Careers in the Equine Industry

10 minutes

Purpose:

Participants will be introduced to careers in the equine industry by working on the worksheet in pairs and grading them as the instructor goes over the answers.

Materials:

- *Intro to Careers in the Equine Industry* worksheet
- *Intro to Careers in the Equine Industry – Answer Key*

Facilitation Steps:

1. Have participants pair up.
2. Distribute the worksheet and explain how to fill it out.
3. Give participants five minutes to fill out the worksheet.
4. After five minutes, have participants go back to their seats and trade papers.
5. Have participants grade the worksheets as you go over the answers as a class.
6. Collect the worksheet.

Name: _____ Class: _____

Intro to Careers in the Equine Industry

Directions: Unscramble the words on the right and place the answer in the blank on the left

1. _____ quinee suranince taken
2. _____ cratk teverarinian
3. _____ yejock
4. _____ reirraf
5. _____ diring strinuctor
6. _____ detoumn cliepo reciffo
7. _____ earyling nagmaer
8. _____ shore dreeber
9. _____ udde charn glerwran
10. _____ shero reifitnedi

Intro to Careers in the Equine Industry – Answer Key

Directions: Unscramble the words on the right and place the answer in the blank on the left.

1. _____ Equine Insurance Agent _____ quinee suranince tagen
2. _____ Track Veterinarian _____ cratk teverarinian
3. _____ Jockey _____ yejock
4. _____ Farrier _____ reirraf
5. _____ Riding Instructor _____ diring strinuctor
6. _____ Mounted Police Officer _____ detoumn cliepo reciffo
7. _____ Yearling Manager _____ earyling nagmaer
8. _____ Horse Breeder _____ shore dreeber
9. _____ Dude Ranch Wrangler _____ udde charn glerwran
10. _____ Horse Identifier _____ shero reifitnedi

Lesson Seven – Marketing, Careers, and Training

LEARN: Careers in the Equine Industry

40 minutes

Purpose:

Participants will learn about the careers in the equine industry by watching a slide presentation and filling out a worksheet.

Materials:

- *Careers in the Equine Industry* slide presentation
- *Careers in the Equine Industry* worksheet
- *Careers in the Equine Industry* – Answer Key

Facilitation Steps:

1. Set up the slide presentation and distribute the worksheet.
2. Provide directions on how to fill the worksheet out and start the presentation.
3. After the presentation is complete, collect the worksheet.

Slide 1: Title slide

Slide 2: Careers in the Equine Industry That Make “Horse Sense”

Slide 3: Types of Careers

- In the equine industry, there are careers that require a college degree, but there are also those that only depend on experience

Slides 4-6: Equine Insurance Agent

- Duties:
 - Collecting data on the equine industry
 - Providing rate quotes and explaining these quotes
 - Handling claims
 - Acquiring appraisals
- While a degree is not required, a background in marketing and animal science is helpful
- Will need to be licensed, but each state has their own requirements
- Continuing education on insurance topics and animal science is required

- Other characteristics that will help in this job include being outgoing, being persistent in building a client base, and experience with livestock
- The purpose of this career is to insure horses for accidents and death based on their value in future competitions and stud/mare uses

Slides 7-8: Track Veterinarian

- Must be a licensed veterinarian
- The purpose of this job is to make sure the horses are healthy and sound
- This includes taking blood before and after a race, monitoring the health of horses while in the barns and on the track, and being on call during racing hours
- Hired by the racetrack (not individual owners of horses)

Slides 9-11: Equine Photographer

- A degree is not required but understanding photography techniques and journalism is very important
- Having experience with horses is required
- Individuals in this occupation will work at horse shows and races
- Can also be found working in remote locations taking pictures of wild horses
- Experience and developing a portfolio are the best ways to get into this occupation

Slides 12-13: Horse Identifier

- There are two types of horse identifiers
 1. The first type creates the mark that will be used to identify the horse through hot iron, freeze branding, electronic identification (microchip), or lip tattoo
 2. The second type checks the identification of the horse prior to purchase and/or competitions
- While there are two different kinds of horse identifiers, one person can do both

- Horse identifiers can be found on farms and racetracks
- Experience is how you get into this occupation

Slides 14-16: Jockey

- A jockey is considered an athlete
- They must maintain a certain weight, be physically fit, and be able to control their animal
- Jockeys are paid a jockey mount fee plus a part of the purse, which is the money earned according to how the horse finishes
- Normally a jockey specializes in one type of racing
- They work outside and learn how to be a jockey through experience
- This occupation can be dangerous due to the speed and unpredictability of the animal

Slides 17-19: Farrier

- A farrier needs the skill of a veterinarian, who understands how to care for horse feet, and farrier, who makes and attaches horseshoes
- Duties:
 - Observes the health of the hooves
 - Trims the hooves
 - Cleans the hooves
 - Places horseshoes on the hooves to protect them
- In the past, one would go to the blacksmith to have horseshoes made and attached
- Today, there is a difference between blacksmiths and farriers
- In the United States, you do not need a license but joining the American Farrier Association is recommended
- You can learn this trade by experience or going to farrier school, which will build credibility

Slides 20-21: Riding Instructor

- Riding instructors teach individuals skills required in riding a horse properly along with skills needed for equine competitions
- They also teach individuals about horse ownership, including
 - How to properly care for the horse
 - Saddling
 - Grooming
 - Cleaning stables
- Experience is a great teacher, but many clients require certification by the American Riding Association and/or Certified Horsemanship Association
- Must have excellent communication and organizational skills

Slides 22-24: Mounted Police Officer

- An officer who rides a horse versus a car to provide public safety
- Must graduate from the police academy and complete any additional training required by your state
- Beyond the police academy and state training, a mounted police officer will have to complete specialized training
- This training teaches the officer how to handle the horse for crowd control, horsemanship, and equine behavior

Slides 25-26: Yearling Manager

- A yearling manager is responsible for the foals from the time they are weaned until they are sold
- They oversee yearling nutrition, exercise, and grooming
- Experience can get you in the field or you can get a degree in the equine industry

Slides 27-29: Horse Breeder

- A college degree is not required but is helpful if it is in equine science and/or equine breeding
- Many horse breeders will specialize in one breed or producing/marketing for a particular purpose, such as show jumping
- May also be involved in showing the product of your breeding program at shows
- Duties:

- Helping veterinarians with physical exams
- Breeding by live cover
- Breeding through artificial insemination
- Handling stallions
- Teasing mares
- Keeping records
- Taking care of foalings

Slides 30-31: Dude Ranch Wrangler

- No college degree required
- Duties:
 - Responsible for the daily care of the horse(s) and barns
 - Take people on trail rides
- Requirements:
 - Great with people and horses
 - Love the outdoors
 - Able to lift 50 pounds
 - Attention to detail

Slides 32-34: Equine Journalist

- Need a degree in journalism, communications, and/or English
- To get the stories, you must be able to communicate well, work with people, and be persistent
- Knowledge of equine equipment and breeds is required
- Can write for online publications, newspapers, and magazines
- While it is true that an equine journalist writes on horses, they can also find themselves writing on diverse topics that range from clothing styles to horse care

Slides 35-38: Professional Rider

- A professional rider has clients with horses for the professional to ride
- This can be for horse shows or equine sports
- Getting into this profession is very competitive
- You can get into this career through an apprenticeship program, degree in equine science, and/or being a top shower in the North American Young Riders Championships (NAYRC)

- To get as much experience as possible, get positions allowing you to ride, teach, and get paid
- Equine disciplines to consider:
 - Show jumping
 - Racing
 - Reining
 - Dressage
 - Eventing
 - Polo
 - Barrel racing

Slides 39-41: Saddler

- Duties:
 - Make saddles
 - Tan saddles
 - Design saddles
 - Repair saddles
- You can learn the trade by working with a saddler either informally or as a formal apprentice
- Must like working with:
 - Horses
 - People
 - Leather
 - Your hands

Slides 42-43: Equine Product Sales Representative

- Requires a college degree in one or more of the following subjects:
 - Business
 - Marketing
 - Animal science
 - Equine science
- They visit farms, veterinarian offices, and feed stores to sell equine products
- Products they sell include feed, additives, and medicine

Slides 44-45: Equine Association Representative

- Organizations such as USEF and AAEP hire administrative staff to help with projects as bookkeepers, stewards, and racing secretaries
- Since this occupation has many different positions, some require a college degree but not all

Slides 46-48: Equine-Assisted Activities and Therapies

- There are numerous occupations that fall into this job description, and they all require a college degree
- The types of therapies that use horses include physical, occupational, and speech
- The work environment can be outdoors or in a barn
- Beyond having a college degree in some form of therapy, you must be familiar with basic horse care
- Currently, this type of therapy is used to help individuals with physical, mental, and/or emotional challenges

Name: _____ Class: _____

Careers in the Equine Industry

Directions: Fill out the worksheet as you watch the slide presentation.

1. _____ of Careers

- In the _____, there are careers that _____ a _____, but there are also _____ that only _____

2. _____

- _____:
 - _____ the _____
 - _____ and _____ these
 - Handling claims
 - _____
- While a _____ is _____, a _____ and _____ is _____
- Will _____ to be _____, but _____ has their _____
- _____ on insurance topics and _____ science is required
- _____ that will help in this job include being outgoing, being _____ in _____ a _____, and _____
- The purpose of this career is to _____ and _____ based on their _____ and _____/_____

3. _____

- Must be a _____
- The _____ of this job is to make sure the _____ are _____ and _____
- This includes _____ and _____ a _____, _____ the _____ of horses while _____

the _____ and on the _____, and being _____

- _____ the _____ (not individual owners of horses)

4. _____

- A _____ is _____ but _____ and _____ is very _____
- Having _____ is _____
- Individuals in this occupation will _____ and _____
- Can also be _____ in _____ taking pictures of wild horses
- _____ and _____ a _____ are the _____ to get _____ this _____

5. _____

- There are _____ of horse identifiers
 - The _____ the _____ that will be _____ to _____ the _____ through _____, freeze branding, _____ (microchip), or _____
 - The _____ the identification of the horse _____ to _____ and/or competitions
- While there are _____ of horse identifiers, _____ can _____
- Horse identifiers _____ on _____ and _____
- _____ how you _____ this _____

6. _____

- A _____ is _____ an _____
- They _____ a _____, be _____, and be able to _____ their _____
- Jockeys are _____ a _____ a _____ the _____, which is the _____ to _____ the _____
- Normally a _____ in _____ of _____

- They _____ and _____ to be a _____
- This occupation _____ due to the _____ and unpredictability of the _____

7. _____

- A _____ the _____ a _____, who understands how to _____, and _____, who _____ and _____
- Duties:
 - _____ the _____ the _____
 - _____ the hooves
 - _____ the hooves
 - _____ on the hooves to protect them
- In the _____, one would _____ the _____ to have _____ and _____
- _____, there is a _____ and _____
- In the _____, you _____ a _____ but _____ the _____
- You can _____ by _____ or _____ to _____, which will build credibility

8. _____

- Riding instructors _____ required in _____ a _____ along with _____ for _____
- They also _____ individuals about _____, including
 - How to _____ for the horse
 - _____
 - Grooming
 - _____
- _____ is a _____ teacher, but _____ the _____ and/or _____
- Must have _____ and _____

9. _____

- An _____ who _____ a _____ a _____ to _____
- Must _____ the police academy and _____ training required by your _____
- Beyond the police academy and state training, a _____ will have to complete _____
- This training teaches the officer _____ the _____ for _____, _____, and _____

10. _____

- A yearling manager is _____ the _____ the _____ they are _____ they are _____
- They _____ the yearling _____, _____, and _____
- _____ can _____ you _____ the _____ or you can get a _____ in the _____

11. _____

- A _____ is _____ is _____ if it is in _____ and/or _____
- Many _____ will _____ in _____ or _____ / _____ a _____, such as _____
- May also be involved in _____ the _____ of _____ at _____
- _____ :
 - _____ with _____
 - _____ by _____
 - _____ through _____
 - _____
 - _____
 - _____
 - _____ of _____

12. _____

- _____ required
- Duties:
 - _____ the _____ of the _____
 - _____
- Requirements:
 - _____ and _____
 - _____ the _____
 - Able to _____
 - _____ to _____

13. _____

- _____ a degree in _____, _____, and/or _____
- To get the stories, _____ be able to _____, _____, and _____
- _____ of _____ and _____ is required
- Can _____ for _____, _____, and _____
- While it is true that an equine journalist _____, they can also find themselves writing on _____ that range from _____

14. _____

- A _____ has _____ with _____ for the _____ to _____
- This _____ for _____ or _____
- Getting into this _____ is _____
- _____ into this career through an _____, _____ in _____, and/or being a _____ the _____ (NAYRC)
- To get as much experience as possible, get _____ you to _____, _____, and _____
- Equine _____:
 - Show jumping
 - _____
 - Reining
 - _____

- Eventing
- _____
- _____

15. _____

- Duties:
 - Make saddles
 - _____
 - _____ saddles
 - _____ saddles
- You can learn the trade by _____ a _____ either informally or as a _____
- Must _____ with:
 - _____
 - _____
 - _____
 - _____

16. _____

- _____ a _____ in one or more of the following subjects:
 - _____
 - _____
 - _____
 - _____
- They _____, _____, and _____ to sell equine products
- Products they sell include _____, _____, and _____

17. _____

- _____ such as _____ hire _____ to _____ with _____ as _____, stewards, and _____
- Since this _____ has many _____, some require a _____ but _____

18. _____ - _____ and _____

- There are _____ that _____
_____ this _____, and they _____
_____ a _____
- The types of _____ that _____ include
_____, _____, and _____
- The _____ can be _____ in a

- _____ having a _____ in some form of
therapy, you must be _____
- Currently, this _____ is used to _____
_____ with _____, _____, and/or

Careers in the Equine Industry – Answer Key

Directions: Fill out the worksheet as you watch the slide presentation.

1. Types of Careers

- In the equine industry, there are careers that require a college degree, but there are also those that only depend on experience

2. Equine Insurance Agent

- Duties:
 - Collecting data on the equine industry
 - Providing rate quotes and explaining these quotes
 - Handling claims
 - Acquiring appraisals
- While a degree is not required, a background in marketing and animal science is helpful
- Will need to be licensed, but each state has their own requirements
- Continuing education on insurance topics and animal science is required
- Other characteristics that will help in this job include being outgoing, being persistent in building a client base, and experience with livestock
- The purpose of this career is to insure horses for accidents and death based on their value in future competitions and stud/mare uses

3. Track Veterinarian

- Must be a licensed veterinarian
- The purpose of this job is to make sure the horses are healthy and sound
- This includes taking blood before and after a race, monitoring the health of horses while in the barns and on the track, and being on call during racing hours
- Hired by the racetrack (not individual owners of horses)

4. Equine Photographer

- A degree is not required but understanding photography techniques and journalism is very important
- Having experience with horses is required
- Individuals in this occupation will work at horse shows and races
- Can also be found working in remote locations taking pictures of wild horses
- Experience and developing a portfolio are the best ways to get into this occupation

5. Horse Identifier

- There are two types of horse identifiers
 - The first types creates the mark that will be used to identify the horse through hot iron, freeze branding, electronic identification (microchip), or lip tattoo
 - The second type checks the identification of the horse prior to purchase and/or competitions
- While there are two different kinds of horse identifiers, one person can do both
- Horse identifiers can be found on farms and racetracks
- Experience is how you get into this occupation

6. Jockey

- A jockey is considered an athlete
- They must maintain a certain weight, be physically fit, and be able to control their animal
- Jockeys are paid a jockey mount fee plus a part of the purse, which is the money earned according to how the horse finishes
- Normally a jockey specializes in one type of racing
- They work outside and learn how to be a jockey through experience
- This occupation can be dangerous due to the speed and unpredictability of the animal

7. Farrier

- A farrier needs the skill of a veterinarian, who understands how to care for horse feet, and farrier, who makes and attaches horseshoes
- Duties:
 - Observes the health of the hooves
 - Trims the hooves
 - Cleans the hooves
 - Places horseshoes on the hooves to protect them
- In the past, one would go to the blacksmith to have horseshoes made and attached
- Today, there is a difference between blacksmiths and farriers
- In the United States, you do not need a license but joining the American Farrier Association is recommended
- You can learn this trade by experience or going to farrier school, which will build credibility

8. Riding Instructor

- Riding instructors teach individuals skills required in riding a horse properly along with skills needed for equine competitions
- They also teach individuals about horse ownership, including
 - How to properly care for the horse
 - Saddling
 - Grooming
 - Cleaning stables

- Experience is a great teacher, but many clients require certification by the American Riding Association and/or Certified Horsemanship Association
- Must have excellent communication and organizational skills

9. Mounted Police Officer

- An officer who rides a horse versus a car to provide public safety
- Must graduate from the police academy and complete any additional training required by your state
- Beyond the police academy and state training, a mounted police officer will have to complete specialized training
- This training teaches the officer how to handle the horse for crowd control, horsemanship, and equine behavior

10. Yearling Manager

- A yearling manager is responsible for the foals from the time they are weaned until they are sold
- They oversee the yearling nutrition, exercise, and grooming
- Experience can get you in the field or you can get a degree in the equine industry

11. Horse Breeder

- A college degree is not required but is helpful if it is in equine science and/or equine breeding
- Many horse breeders will specialize in one breed or producing/marketing for a particular purpose, such as show jumping
- May also be involved in showing the product of your breeding program at shows
- Duties:
 - Helping veterinarians with physical exams
 - Breeding by live cover
 - Breeding through artificial insemination
 - Handling stallions
 - Teasing mares
 - Keeping records
 - Taking care of foalings

12. Dude Ranch Wrangler

- No college degree required
- Duties:
 - Responsible for the daily care of the horse(s) and barns
 - Take people on trail rides
- Requirements:
 - Great with people and horses
 - Love the outdoors

- Able to lift 50 pounds
- Attention to detail

13. Equine Journalist

- Need a degree in journalism, communications, and/or English
- To get the stories, you must be able to communicate well, work with people, and be persistent
- Knowledge of equine equipment and breeds is required
- Can write for online publications, newspaper, and magazines
- While it is true that an equine journalist writes on horses, they can also find themselves writing on diverse topics that range from clothing styles to horse care

14. Professional Rider

- A professional rider has clients with horses for the professional to ride
- This can be for horse shows or equine sports
- Getting into this profession is very competitive
- You can get into this career through an apprenticeship program, degree in equine science, and/or being a top shower in the North American Young Riders Championships (NAYRC)
- To get as much experience as possible, get positions allowing you to ride, teach, and get paid
- Equine disciplines to consider:
 - Show jumping
 - Racing
 - Reining
 - Dressage
 - Eventing
 - Polo
 - Barrel racing

15. Saddler

- Duties:
 - Make saddles
 - Tan saddles
 - Design saddles
 - Repair saddles
- You can learn the trade by working with a saddler either informally or as a formal apprentice
- Must like working with:
 - Horses
 - People
 - Leather
 - Your hands

16. Equine Product Sales Representative

- Requires a college degree in one or more of the following subjects:
 - Business
 - Marketing
 - Animal science
 - Equine science
- They visit farms, veterinarian offices, and feed stores to sell equine products
- Products they sell include feed, additives, and medicine

17. Equine Association Representative

- Organizations such as USEF and AAEP hire administrative staff to help with projects as bookkeepers, stewards, and racing secretaries
- Since this occupation has many different positions, some require a college degree but not all

18. Equine-Assisted Activities and Therapies

- There are numerous occupations that fall into this job description, and they all require a college degree
- The types of therapies that use horses include physical, occupational, and speech
- The work environment can be outdoors or in a barn
- Beyond having a college degree in some form of therapy, you must be familiar with basic horse care
- Currently, this type of therapy is used to help individuals with physical, mental, and/or emotional challenges

Lesson Seven – Marketing, Careers, and Training

REVIEW: Recap of Horse Careers

10 minutes

Purpose:

Participants will explore a career that they have interest in and demonstrate their knowledge of horse careers by taking a quiz.

Materials:

- *Career Exploration Graphic Organizer*
- *Horse Career Quiz*
- *Horse Career Quiz – Answer Key*

Facilitation Steps:

1. Distribute the *Career Exploration Graphic Organizer* to the participants and explain how to fill it out.
2. Give participants five minutes to research their career.
3. After five minutes, collect the *Career Exploration Graphic Organizer* and distribute the *Horse Career Quiz*.
4. Explain how to complete the quiz and give participants five minutes to do so.
5. After five minutes, collect the quizzes.

Name: _____

Class: _____

Career Exploration Graphic Organizer

Compare and contrast careers related to horses. Possible sources for information include your school library, public library, Bureau of Labor Statistics website, Occupational Outlook Handbook website, FFA, or other career-related websites on the internet.

CAREER: _____

Degree or license required	
Length of time to complete training or earn degrees	
Average starting salary per year	
Average hourly wage	
Job outlook	
5 skills needed for this job	
Describe the job setting	
What are the primary job duties?	
Do you work alone or with people?	
What needs or wants does this occupation fill?	

What is one thing an employer would expect from someone in this position?	
What kinds of people will be successful in this career?	

Name: _____ Class: _____

Horse Careers Quiz

Directions: After reading each statement, indicate whether you think it is true or false.

1. A saddler works at a racetrack putting saddles on horses for jockeys. True or False
2. Horse breeders must have a college degree. True or False
3. Equine-assisted therapies are done by therapists with degrees who treat individuals with physical, emotional, and mental struggles. True or False
4. An equine journalist writes childrens' books based on horses. True or False
5. A track veterinarian is only hired by individual horse owners. True or False
6. A mounted police officer needs to understand horse behavior and how to take care of a horse. True or False
7. Yearling managers are involved in delivering colts. True or False
8. A professional rider only rides in parades and at fairs. True or False
9. The equine association representative is a single job that entails going to fairs and horse shows only to recruit new members. True or False
10. The dude ranch wrangler must have a degree in animal science. True or False
11. While a farrier can also be a blacksmith, a blacksmith is not a farrier. True or False
12. A jockey is considered an athlete. True or False
13. A horse identifier is a dual-purpose occupation where this individual can mark the horse or read and verify the mark. True or False
14. Equine insurance agents only protect the riders and equipment (not the horses). True or False
15. To become an equine photographer, one must have a degree in photojournalism and equine science. True or False

16. While a college degree is not required to be a riding instructor, many clients will insist that you belong to the American Riding Association and/or Certified Horsemanship Association. True or False
17. Part of a farrier's job is to care for the hooves of a horse. True or False
18. An equine product sales representative requires a college degree in business, marketing, animal science, and/or equine science. True or False
19. A mounted police officer is not required to attend the police academy. True or False
20. While one can become a farrier through experience, it is recommended that they go to farrier school to build credibility. True or False

Horse Careers Quiz – Answer Key

Directions: After reading each statement, indicate whether you think it is true or false.

1. A saddler works at a racetrack putting saddles on horses for jockeys. True or **False**
2. Horse breeders must have a college degree. True or **False**
3. Equine-assisted therapies are done by therapists with degrees who treat individuals with physical, emotional, and mental struggles. **True** or False
4. An equine journalist writes childrens' books based on horses. True or **False**
5. A track veterinarian is only hired by individual horse owners. True or **False**
6. A mounted police officer needs to understand how to take care of a horse and horse behavior. **True** or False
7. Yearling managers are involved in delivering colts. True or **False**
8. A professional rider only rides in parades and at fairs. True or **False**
9. The equine association representative is a single job that entails going to fairs and horse shows only to recruit new members. True or **False**
10. The dude ranch wrangler must have a degree in animal science. True or **False**
11. While a farrier can also be a blacksmith, a blacksmith is not a farrier. **True** or False
12. A jockey is considered an athlete. **True** or False
13. A horse identifier is a dual-purpose occupation where this individual can mark the horse or read and verify the mark. **True** or False
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16. While a college degree is not required to be a riding instructor, many clients will insist that you belong to the American Riding Association and/or Certified Horsemanship Association. **True** or False
17. Part of a farrier's job is to care for the hooves of a horse. **True** or False

Horse Kit Curriculum

18. An equine product sales representative requires a college degree in business, marketing, animal science, and/or equine science. **True** or False
19. A mounted police officer is not required to attend the police academy. True or **False**
20. While one can become a farrier through experience, it is recommended that they go to farrier school to build credibility. **True** or False

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