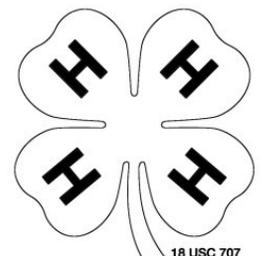
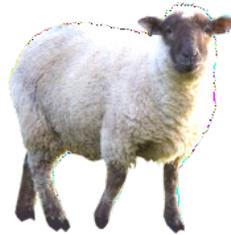


Hendricks County Mini 4-H



Showing Livestock



Mini 4-H Parent's Page

Welcome to the Mini 4-H program! Mini 4-H is for youth who are in either first or second grade during the current 4-H year. Mini 4-H is designed to supplement and introduce both first and second graders to the Hendricks County 4-H program.

As a Mini 4-H parent, your job is to guide your child through the activities. We suggest that you do not complete the activities for them. Instead, help them, guide them, work with them, and let them do all that they possibly can. Learning by doing is the best educational tool that we can provide for our youth.

Additionally, the Mini 4-H program is set up to allow your child to exhibit a project at the 4-H Fair. This project is based on information within this manual. The 4-H Fair is an exciting time for 4-H Members and their families. It is a week that allows community youth to showcase their talents, interests and enthusiasm for learning.

Mini 4-H is fun! Your child will certainly enjoy it. You can have fun too, by guiding and helping as your child participates in the program. Encourage and praise your child as he/she has fun learning and sharing with you.

Rules

1. Mini 4-H is open to any youth who is enrolled in either first or second grade on January 1st of the current year.
 2. Any Mini 4-H Participant may enroll in one (1) or two (2) projects. There are 16 projects to choose from. **Participants may exhibit only one (1) activity from a project book at the Hendricks County 4-H Fair (up to 2 projects total).** Additional activities can be done at home, but will not be exhibited.
 3. It is encouraged that Mini 4-H participants enroll in the County Mini 4-H Club, and their projects are done at home.
 4. ***If exhibiting a poster**, POSTER EXHIBITS MUST:**
 - a. Have a solid, stiff backing, which is 14" high by 22" wide. This can be HEAVY cardboard or foam core board. The board must be able to stand by itself (Foam core board is available in the extension office for a minimal cost).
 - b. Be positioned HORIZONTALLY.
 - c. Have a total exhibit board no larger than 14" high by 22" wide.
 - d. Be COMPLETELY COVERED with CLEAR PLASTIC material. (Available in the Extension Office for a minimal cost).
- * (Note: Not all Mini 4-H exhibits will be on poster board.)
5. Mini 4-H participants will complete the activities in the book. The record sheet located in the back of the project book needs to be completed and will be turned in with their exhibit at the fair.

Mini 4-H'ers Page

Welcome to Mini 4-H! You are now a member of the 4-H Family. You are a special person. Mini 4-H'ers have a lot of fun! There are many activities for you to explore. You can try new things. You can share it with friends and family. Mom, Dad, or another adult can help you with your project. Bring your projects to the 4-H Fair and lots of people will be able to see what you have done. You also get a ribbon made just for 4-H'ers.

Here are a few things to know about 4-H:

The 4-H Symbol: A four-leaf clover with an "H" on each leaf

4-H Colors: Green and White

The 4-H Motto: "To make the best, better"

4-H PLEDGE

I pledge my **HEAD** to clearer thinking,
My **HEART** to greater loyalty,
My **HANDS** to larger service,
And my **HEALTH** to better living,
For my club, my community,
My country, and my world.



Welcome to Showing an Animal in Mini 4-H!

Mini 4-H members interested in showing an animal at the Hendricks County 4-H Fair now have that opportunity! Mini 4-H members will **NOT** exhibit their own animals, but will be partnered with a regular 4-H member mentor to learn more about their animal. Mini 4-H members will have a designated time that they will then be able to “show” their mentor’s animal in the ring (no placings will be given, only for exhibition). Mini 4-H members may find their own mentor or can request a mentor be assigned to them from a designated species.

In order to show an animal at the Hendricks County 4-H Fair, Mini 4-H members must complete **at least three (3) of the activities listed on the “Showing Livestock Checklist”** in this manual with their mentor. Write the date that you complete the activities and have your mentor sign to verify completion. You can complete different activities or do one activity multiple times. The only species available for showing in Hendricks County will be Alpacas, Goats, Poultry, Rabbits, Sheep, and Swine.

How To Use This Book

This workbook has four sections:

1. **Livestock References, Resources, and Activities** – This information will help you if you choose to complete the task of naming the parts of a livestock animal that you are studying. These are also great resources for you to review with your mentor to learn more about the animal you will be showing! There are also a few activities that will count toward your “Showing Livestock Checklist” to complete with your mentor.
2. **Mini 4-H Showing Checklist** – This checklist will help you track the activities you need to do with your mentor to learn about the animal you will show and “complete” this project.
3. **Mentor/Mentee Information and Mini 4-H Waiver** – This page **MUST** be submitted no later than *May 15th* to the Extension Office. The sooner you turn it in, the sooner you can start working with your mentor! This sheet has a place for you to explain who your mentor is OR if you need a mentor. If you need a mentor, the 4-H Club and Leaders of that species will work with you to find a mentor. The waiver **MUST** be on file before you start working with an animal. If the May 15th date is not met, there is no guarantee you will be able to show an animal this year. You would still be able to participate in other Mini 4-H Projects.
4. **Mentor Manual** – The last section of this book (different colored paper) is for you to tear out and give to your mentor. This will help them understand their duties and provide some basic information on ways to help you!

Hendricks County 4-H (including Mini 4-H) is committed to creating a diverse, equitable, and accessible environment for all members, past, present, and future. If there are any accessibility needs or accommodation requests for you to be able to fully engage in the 4-H experience, please contact Kati Sweet at hendrces@purdue.edu or call 317-745-9260.

Remember, this is still a fairly new opportunity, so please ask questions so we can continue to improve the process! If you have questions, comments, and/or concerns, please contact the Purdue Extension – Hendricks County office at 317-745-9260 or email hendrces@purdue.edu.

ACTIVITY: Crossword

Instructions: Place the name of each animal in the crossword puzzle.

1



2



3



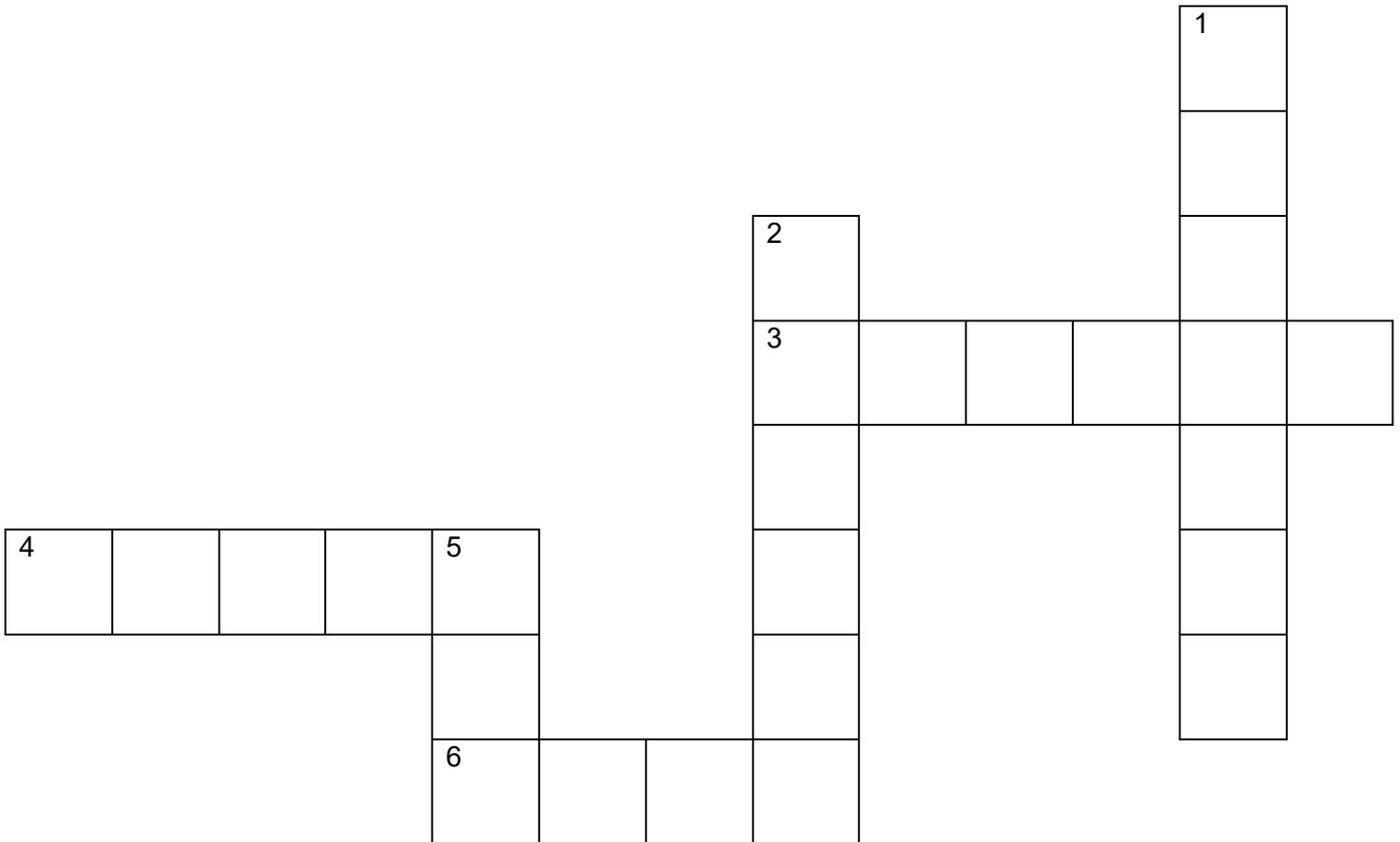
4



5

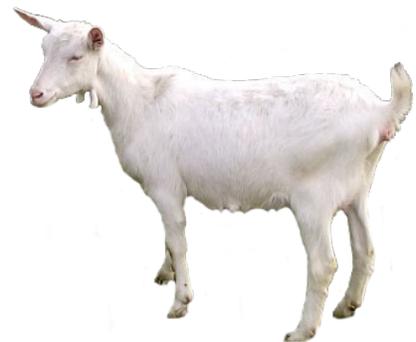


6





Meat Goats and Dairy Goats



Dairy Goat

Milk goats are popular with many people who like to have fresh milk but do not have any room for a cow. A dairy goat, called a doe, can produce at least two quarts of milk a day. With goat milk, the same products can be made as with cow's milk. Goats do not require a lot of room, but they do like to have things to climb on, such as tree trunks, wood piles, or just a pile of dirt.

Doe goats usually have two babies, called kids, but can have from one to four at one time. They only have their young once a year and the kids are usually born in the spring. It takes five months from the time a doe is bred to the time the kids are born. Young kids are often taken from their mother shortly after they are born and bottle-raised, so that the milk from the doe can be used for people instead of the kids.

There are several breeds of dairy goats. Seven breeds of dairy goats that are discussed in this section include: Alpine, La Mancha, Nubian, Saanen, Toggenburg, Oberhasli, and Nigerian Dwarf.



Seven Examples of Dairy Goat Breeds*

SAANEN:

This breed originated in Switzerland (Saanen Valley). They are totally white and have a dished face and erect ears. The white color is dominant over any other color.

TOGGENBURG:

This breed is brown with white facial, ear, and leg stripes. They are straight nosed and have erect ears. They have been bred pure for over 300 hundred years. That is longer than any other domestic breed of livestock.

ALPINE:

Alpines can be any color except solid white. They have erect ears, a dished face, and areas tall and strong as a Saanen. They are second in milk production to the Saanen and Toggenburg.

LA MANCHA:

This is a breed developed in California. They are known for excellent adaptability and good winter production. They have straight noses and short hair. They have no external ear due to a dominant gene. They are more the size of Toggenburg, and their milk fat content is higher than that of the Swiss breeds.

NUBIAN:

This breed has heavy arched "Roman" noses, long drooping, and pendulous ears. They are leggy and as tall as Saanen. They but produce less milk, but have higher milk fat levels. They "talk" a lot, and are in numbers the most popular breed in the United States and Canada. They are horned or hornless and have many colors that can be "appaloosa-like" spotted.

OBERHASLI:

Medium in size, Oberhasli are chamois in color – light to dark red with black belly and legs. The face is straight or dished and ears are erect.

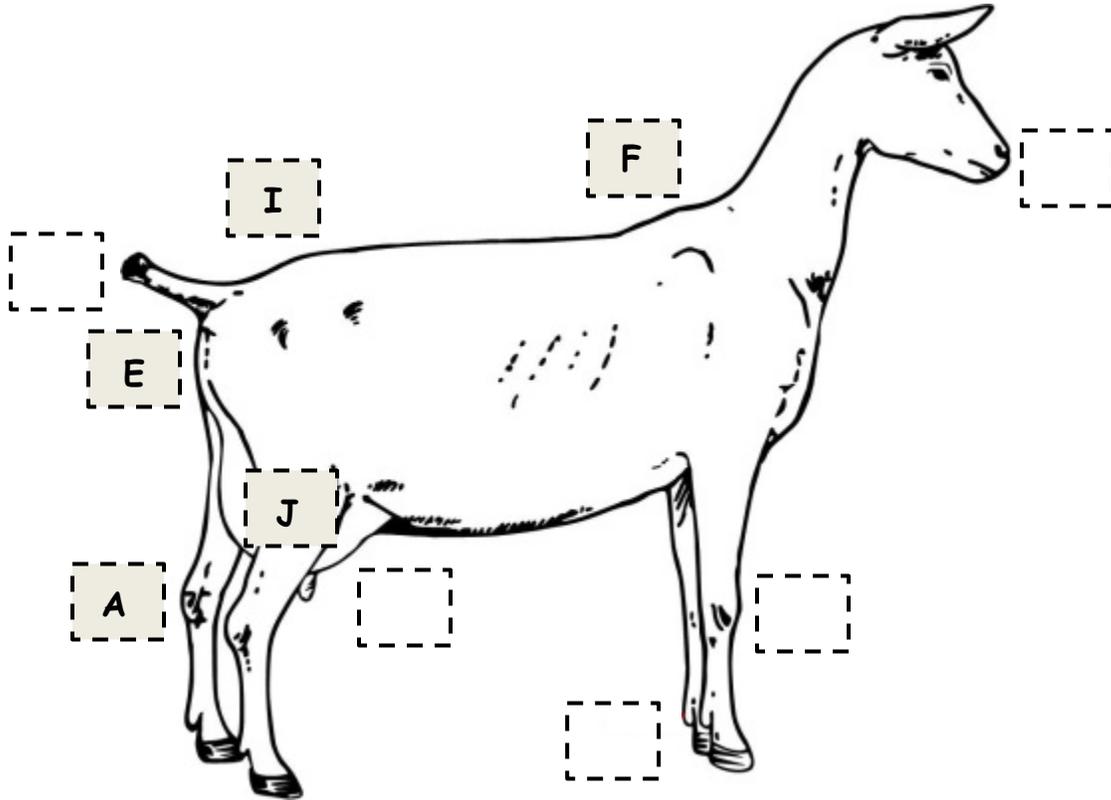
NIGERIAN DWARF:

These are miniature dairy goats that can be any color. Full-grown females are 16-21 inches at the withers. The milk is rich in butterfat.

** For complete list of breeds that exhibit at the Hendricks County 4-H Fair, refer to Hendricks County 4-H Handbook page 153.*

ACTIVITY: *Parts of a Dairy Goat*

Instructions: Complete the drawing by placing the letter in the box which matches the correct body part of the dairy goat.



- A. ~~Hock~~
- B. Udder
- C. Muzzle
- D. Knee
- E. ~~Pin Bone~~

- F. ~~Withers~~
- G. Tail
- H. Hoof
- I. ~~Hip Bone~~
- J. ~~Thigh~~

Meat Goat

Meat goats (like sheep and cattle) are ruminants which mean they have four compartments to their stomach. This is why they can digest pasture grasses and hay. However, they really prefer to browse on woody type plants.

All goats can be sold for their meat. However, in recent years producers have begun to place more importance on muscle. As a result, certain breeds have been developed or improved. These animals tend to excel at muscle production, reach their market weight quickly and are generally easy to handle.

Although all goats can be harvested for their meat, there are certain breeds that are better suited for this purpose.



Meat Goat Breeds

BOER:

The modern-day Boer is a horned breed that originated in South Africa and most often has short white hair with red markings on the head and neck and long floppy ears. This breed excels in meat production, conformation, fertility and a high growth rate.

SPANISH:

The Spanish meat goat is made up of a wide range of colors and body types. The Spanish goat can be traced back to European sailing ships and Spanish explorers. For several generations, these goats could be found running wild in the Southern part of the United States. The majority of these goats have the ability to breed out of season, and have small udders and teats. These animals tend to be very hardy, easy to manage and do well in tough environments.

KIKO:

Much like the Spanish Goat, the Kiko is also the result of crossbreeding. Developed in New Zealand by crossing the heavier muscled wild does with Saanen and Nubian bucks. As a result, this breed tends to be larger framed, early maturing, and is often white.

TENNESSEE FAINTING GOAT:

Also known as Wooden Leg goats or Myotonic goats, this is the only breed that was developed in the United States. These animals tend to be very muscular, will breed out of season and will often kid twice a year. The Tennessee Fainting Goat also suffers from a condition called myotonia. If frightened, these goats experience "extreme muscle stiffness". This causes their legs and neck to "lock up" and will last 10-20 seconds. If unbalanced during these attacks, the goat will topple over, thus the name fainting goat.

PYGMY:

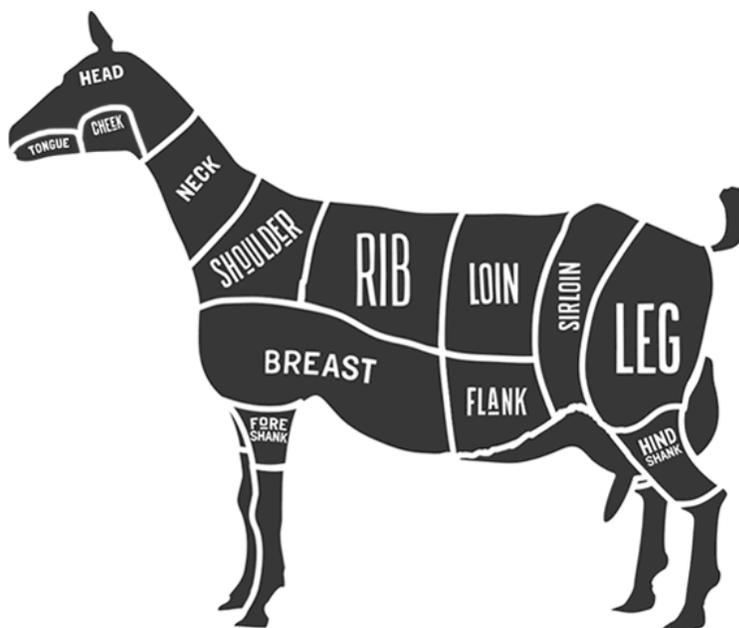
These are small, compact animals. Their legs, neck, and head are relatively short in relation to body length. Their body circumference in relation to height and weight is proportionally greater than that of other goats. Pygmy goats are hardy, alert, and playful. the most common color is a grizzled, salt and pepper pattern of any color. Common colors are blue, agouti (speckled), black agouti, caramel, and white agouti. Pygmy are often raised as pets.

ACTIVITY: Meat Goat Cuts

Instructions: Find the meat goat cuts listed and circle within the word search.



CHEEK FLANK FORESHANK LEG LOIN NECK RIB





Sheep



Sheep

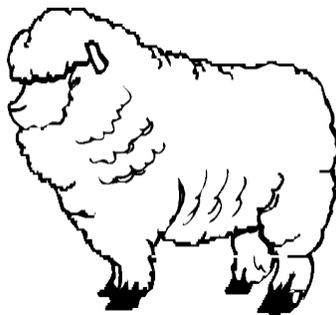
Sheep are among the most important animals that man has tamed because they provide both food and clothing. Sheep are raised in all parts of the world, but Australia is the largest producer. In the United States, Texas and Wyoming are the leading states, with about 4 and 1 million sheep raised respectively. In Indiana only about 75,000 head are raised.

Sheep vary greatly in size with ewes weighing from 100-200 pounds and the ram weighing up to 300 pounds. Sheep have hooves which are divided into two toes. Their ankles are slim with muscular upper legs for moving quickly and easily.

Sheep can bite off grass much closer to the ground than cattle. When they finish grazing an area, very little plant life is left. This is one reason the sheep and cattle farmers in early United States history did not get along.

Sheep can live about 13 years. They begin breeding at two years of age and have their young in the spring. They usually have two lambs. The gestation period is five months.

There are 15 to 20 different kinds of sheep. Some are better for their quality and quantity of wool than others. The Merino sheep are prized for their wool. Six breeds that will be reviewed in this section are Dorset, Cheviot, Southdown, Shropshire, Suffolk, or Hampshire. All of these are dual purpose animals for their meat and medium grade wool.



Six Examples of Breeds of Sheep*

DORSET:

This is a medium-sized breed developed in England; the only major breed in which both rams and ewes are horned. It has been introduced into many areas of the United States, although it has failed to gain widespread popularity here.

CHEVIOT:

This is a medium-sized breed with rams weighing about twice as much as the females. It is a white face sheep that is still common in the United Kingdom.

SOUTHDOWN:

It is a small sheep, the thickest set of all breeds, and it is valued for the meatiness of the lamb carcasses. The wool is of medium length and fine grade; it varies in color from grey to brown on the face and feet. It was first imported to the United States in 1803 and has found acceptance in farm flock areas.

SHROPSHIRE:

The Shropshire is of medium size, has a dark face, is prolific, fast growing, and produces a good grade of mutton and wool. Because of its adaptability, this breed has spread widely over the world.

SUFFOLK:

This breed is a relatively large breed, developed in England, and well-known for its high-quality meat. Considered to be a recent introduction to the United States, the breed has many desirable qualities and is becoming widely accepted here.

Suffolks have bare heads with no horns, black faces, and bare black legs.

HAMPSHIRE:

Hampshires are large in size, hornless, have black faces and legs, and are characterized by rapid growth. Recognized as one of the most popular meat breeds, they are raised all over the world on farms and ranches, and are one of the leading breeds in the United States, particularly in Kentucky and California.

** For complete list of breeds exhibited at the Hendricks County 4-H Fair, refer to Hendricks County 4-H Handbook page 178-181.*

Wool

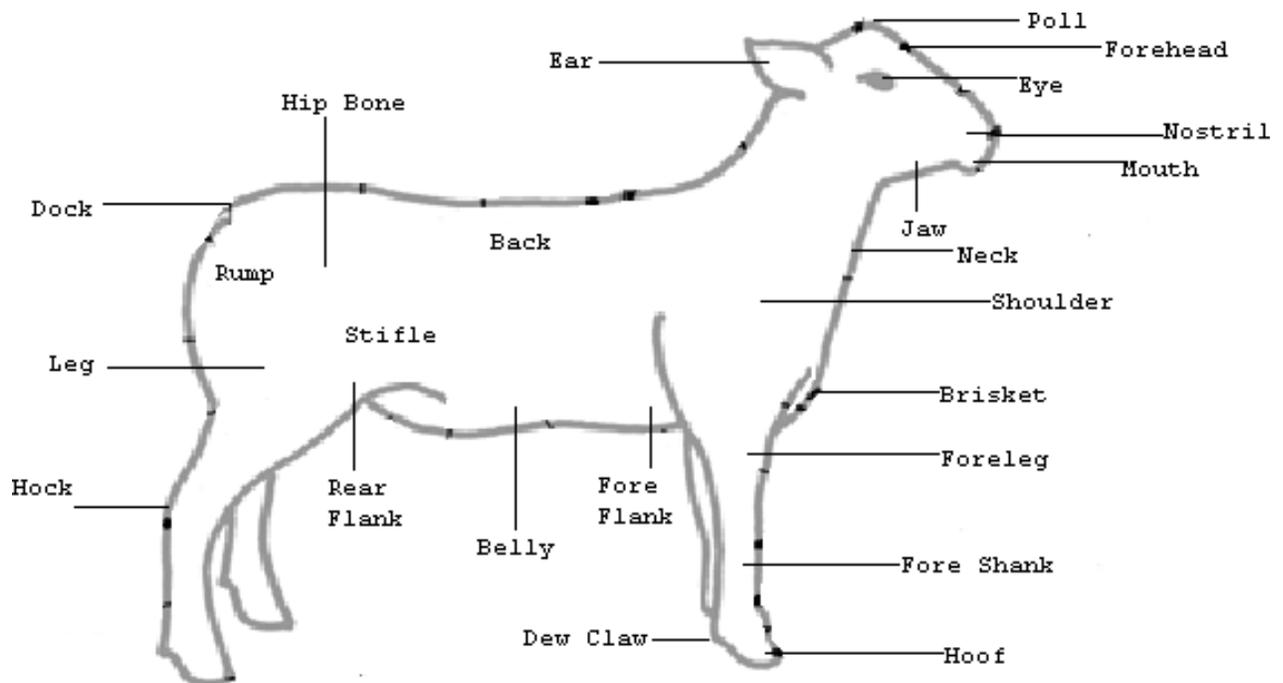
People wear wool clothing to keep warm in winter and cool in the summer. Wool absorbs moisture without feeling wet to the skin. Most wool we wear comes from domestic sheep. The Merino sheep produces as much as 28 pounds of wool, but most fleeces (the wool sheared at one time) average 10 pounds. This should all come off in one piece. The wool is sheared in the spring.

An average man's suit uses three- and one-half pounds of raw wool (as it comes from the sheep). Lamb's wool comes from the first shearing of a young sheep at the age of eight to twelve months. This is a very soft, and desirable wool.

Wool from healthy sheep has a protective film called "yolk". This oily substance contains "lanolin" and "swint" (the dried perspiration of the sheep). Wool is marketed by condition and quality. Condition refers to dirt and grease. Quality refers to the fineness, strength, and length of fibers.

Scouring of wool is necessary to remove dirt and grease. The wool passes through four or five vats of soap and water during this cleansing process. After being cleaned, it is carded by passing through rows of teeth to straighten and blend the fibers into a flat band. The band is then made into yarn and is ready to be made into fabric.

Parts of a Lamb



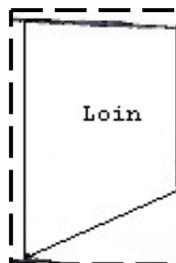
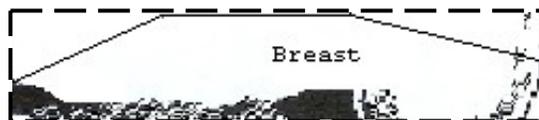
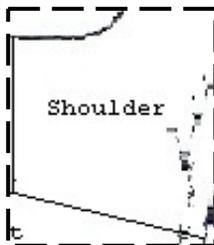
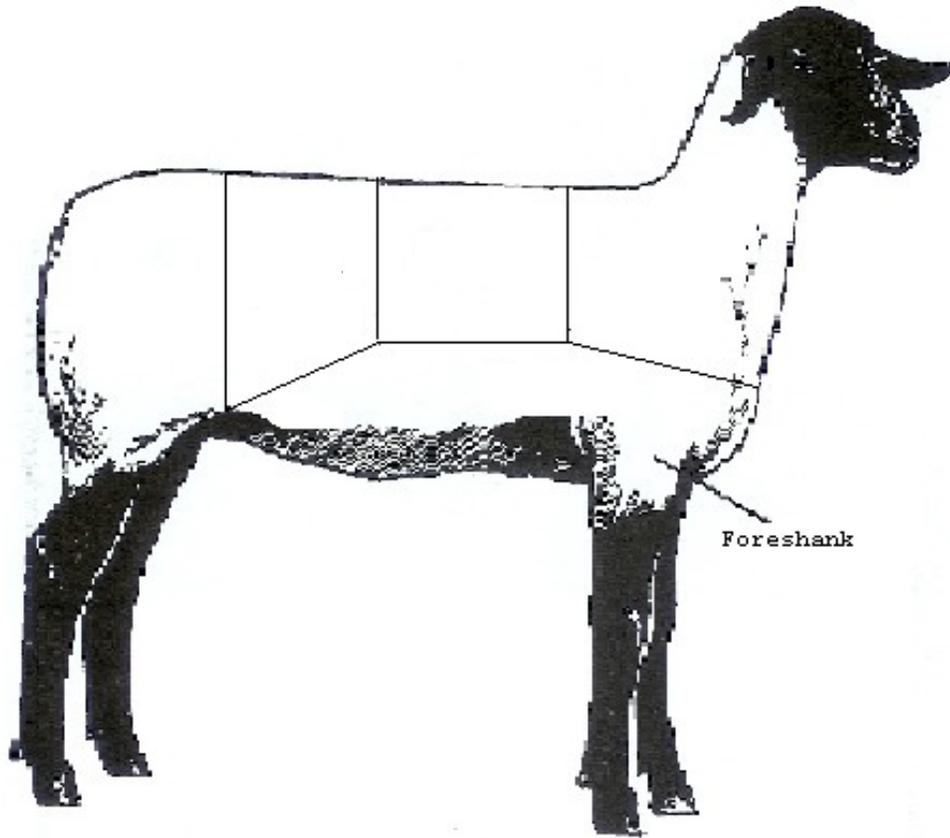
ACTIVITY: Sheep Trivia

Instructions: Draw a line from each question to the correct answer on the right.

- | | |
|---|-------------------|
| 1. What is fleece? | Ewes |
| 2. Sheep live in groups called _____. | Flocks |
| 3. Who used wool to make sails to sail across the Atlantic Ocean? | 1/5 pound |
| 4. How many pounds of wool are needed to make 1 mile of yarn? | Texas |
| 5. What are female sheep called? | The animal's coat |
| 6. Which state raises the most sheep? | Vikings |
| 7. What ingredient from sheep is found in some lotions? | Lanolin |

ACTIVITY: Cuts of Meat from a Lamb

Cut out each cut of meat listed below and glue or tape to the correct area of the sheep.





Swine



Swine

Pigs are also known as hogs or swine. Male pigs of any age are called boars; female pigs are called sows. Pigs are found and raised all over the world, and provide valuable products to humans, including pork, lard, leather, glue, fertilizer, and a variety of medicines. Most pigs raised in the United States are classified as meat-type pigs, as they produce more lean meat than lard, a fat used in cooking.

In the wild, pigs eat everything from leaves, roots, and fruit to rodents and small reptiles. In the United States, farm-raised pigs eat commercially made diets of mostly corn. In Europe, pigs eat barley-based diets. Pigs have sharp tusks that help them dig and fight. Farmers often take off the tusks to avoid injury to people and other pigs.

Sows give birth to a litter of young called piglets. They usually nurse the piglets for three to five weeks. Piglets weaned off their mother's milk are not called piglets but are referred to as shoats.

Piglets weigh about 2.5 pounds (1.1 kilograms) at birth, and usually double their weight in one week. Fully grown, pigs can grow to between 300 and 700 pounds (140 and 300 kilograms), and sometimes much more. Pigs have poor eyesight, but a great sense of smell. The pig's nostrils are on its leathery snout, which is very sensitive to touch. The pig uses the snout to search, or root, for food.

Despite their reputation, pigs are not dirty animals. They're actually quite clean. The pig's reputation as a filthy animal comes from its habit of rolling in mud to cool off. Pigs that live in cool, covered environments stay very clean.

There are several breeds of swine, but this section will review 11 of the most common swine breeds. For a full list of breeds that exhibit at the Hendricks County 4-H Fair, be sure to review the Hendricks County 4-H Handbook.

Source: nationalgeographic.com

11 Examples of Swine (Pig) Breeds

BERKSHIRE:

The Berk is mostly black with some small white spots. It has to have 6 white points, the 6 points include one on the nose, tail, and all 4 feet. The Berk's ears stand up.

CHESTER WHITE:

The Chester is all white and has small floppy ears.

DUROC:

The Duroc is all red with floppy ears.

HAMPSHIRE:

The Hampshire is mostly black with a white belt around the middle. Its ears stand up.

HEREFORD:

The Hereford is mostly red with white on its face, ears, belly, and legs. The Hereford has floppy ears.

LANDRACE:

The Landrace is all white with a longer body and large floppy ears.

POLAND CHINA:

A Poland China pig is mostly black with white on its face, feet, and tail. They have floppy ears.

SPOTTED:

The Spot has large black and white spots, it also has floppy ears.

TAMWORTH:

The Tamworth is an all red/orange pig with ears that stand up.

YORKSHIRE:

The York is an all-white pig with ears that stand up.

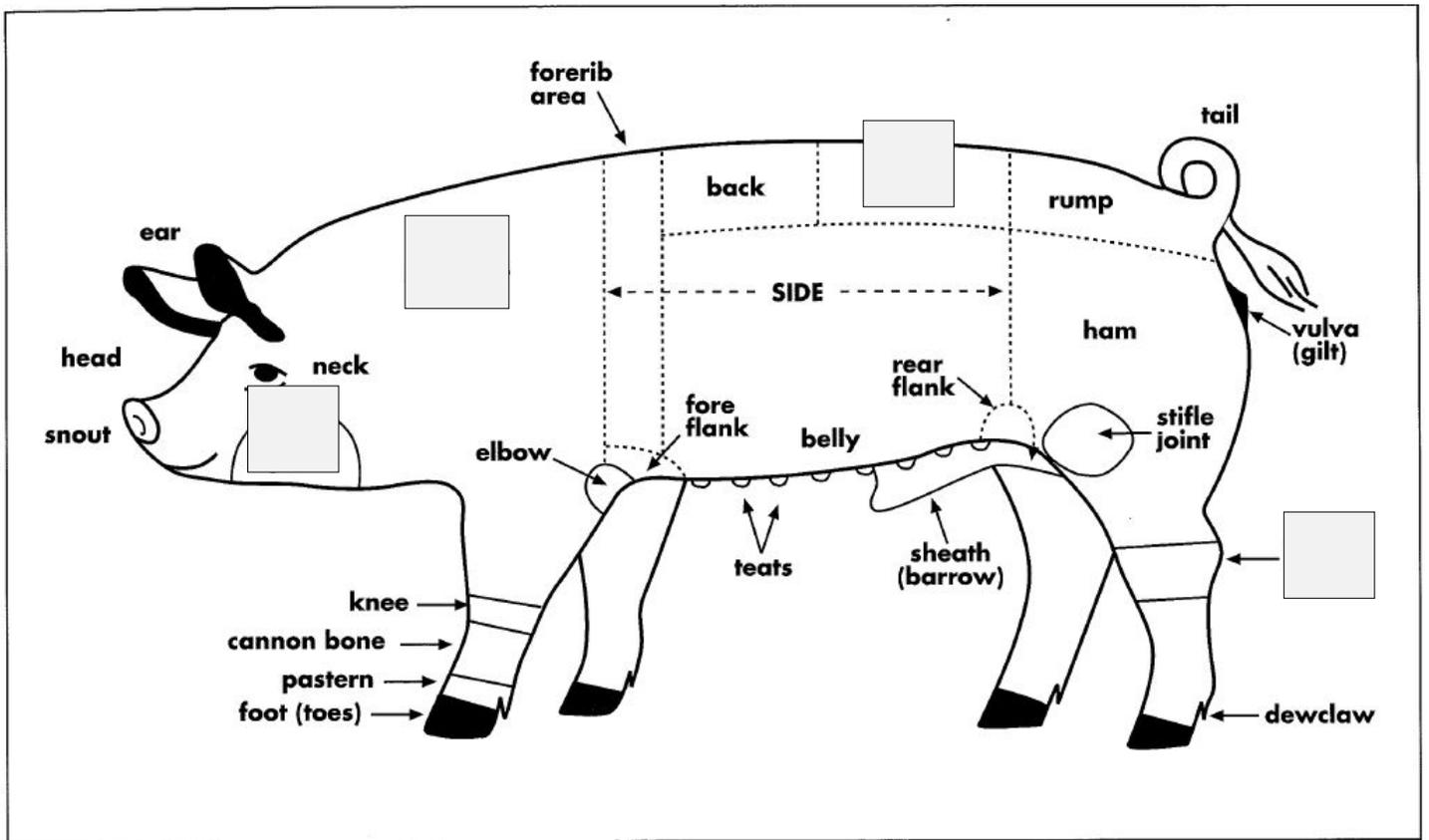
CROSSBRED:

A crossbred can be any color because they are a mix of the many pigs above.

** For complete list of breeds exhibited at the Hendricks County 4-H Fair, refer to Hendricks County 4-H Handbook page 183-185.*

ACTIVITY: Body Parts of a Hog

Instructions: Fill in the blank with the correct letter for each missing body part.



A. Hock

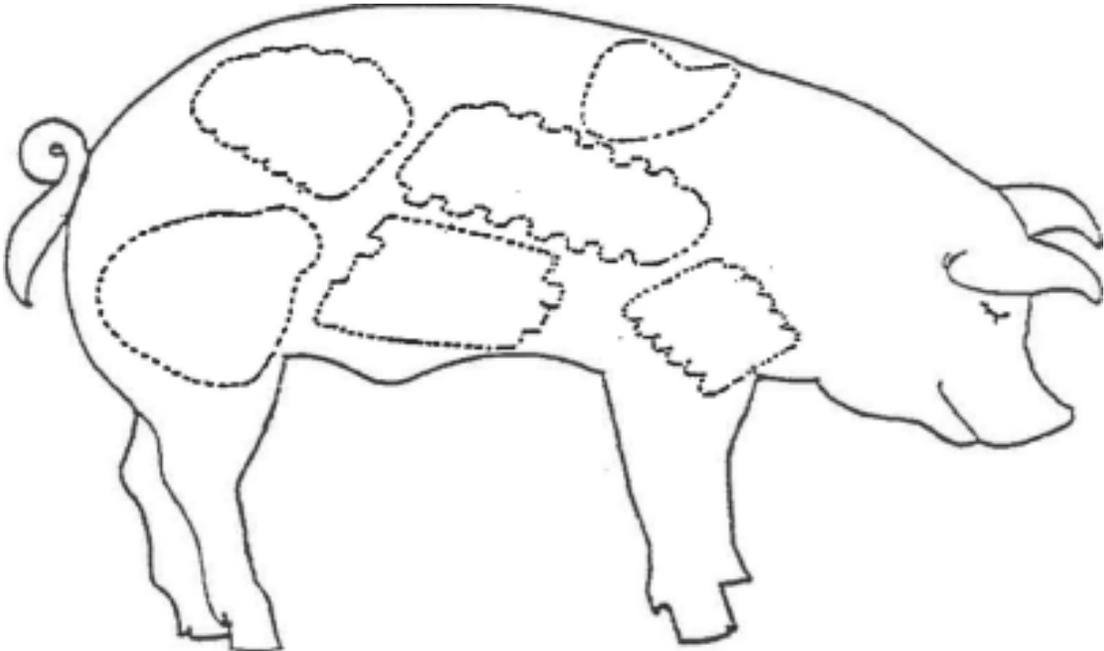
B. Shoulder

C. Jowl

D. Loin

ACTIVITY: Pork Cuts

Instructions: Look at the swine picture.
Cut out the meat cuts and glue or tape them on the swine in their proper place.



CUT HERE

Ham



Roast



Pork Chops



Sausage



Spare Ribs



Bacon





Rabbits



Rabbits

Rabbits are used for many purposes, of few of which are meat, fur, wool, exhibition and pets. Selecting one or more rabbits depends on the intended purpose. Once you have determined your objective for owning or raising rabbits, you can decide on the breed.

In addition to your objectives, when choosing a breed, you should also consider your ability to handle smaller versus larger rabbits, the space requirements for your project, and the amount of time you plan to spend with your rabbit project. Rabbits, compared to larger livestock projects, require a relatively low investment, minimum space requirements, and can be kept in urban and suburban environments, as well as rural areas.

When deciding on which breed to select, read as much as you can about the different breeds of rabbits recognized by the American Rabbit Breeders Association. Talk with reputable breeders. Attend a major sanctioned ARBA show to see and learn about the different breeds. You will also find cages, carriers, and other equipment and supplies at these shows. Learning the costs of equipment will help you prepare a budget for your project.

The American Rabbit Breeders Association *Standard of Perfection* describes in detail each recognized breed and its characteristics.

ACTIVITY: Rabbit Parts ID

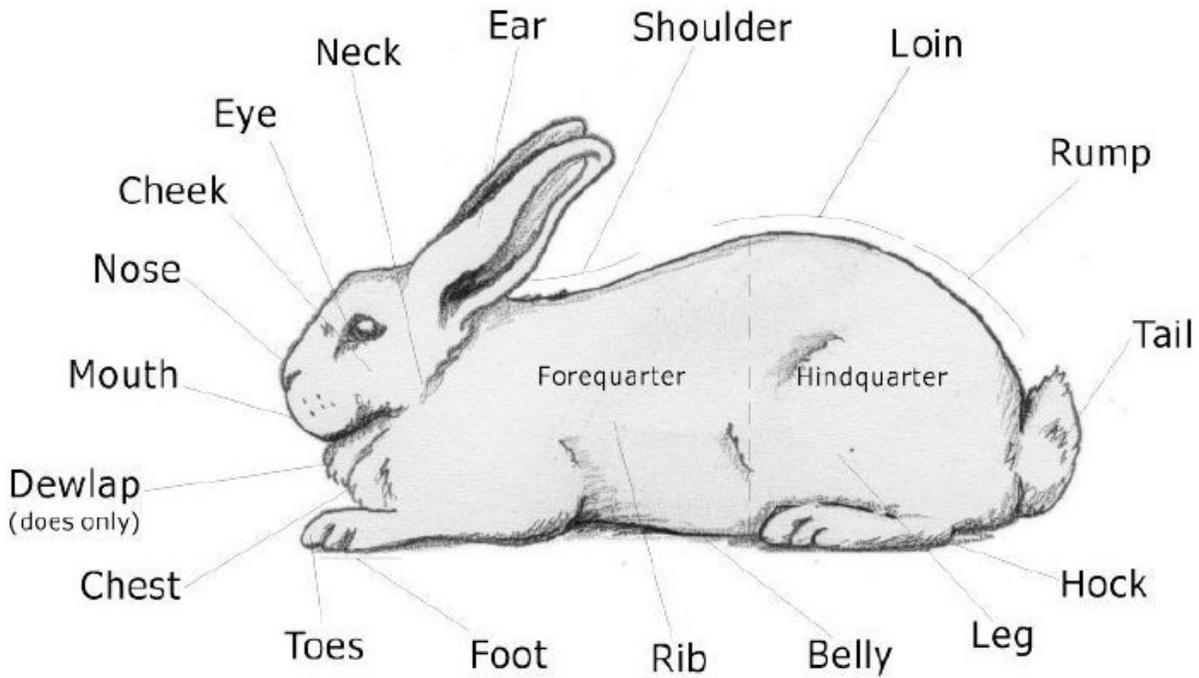
List THREE parts of a rabbit using the picture below:

1. _____

2. _____

3. _____

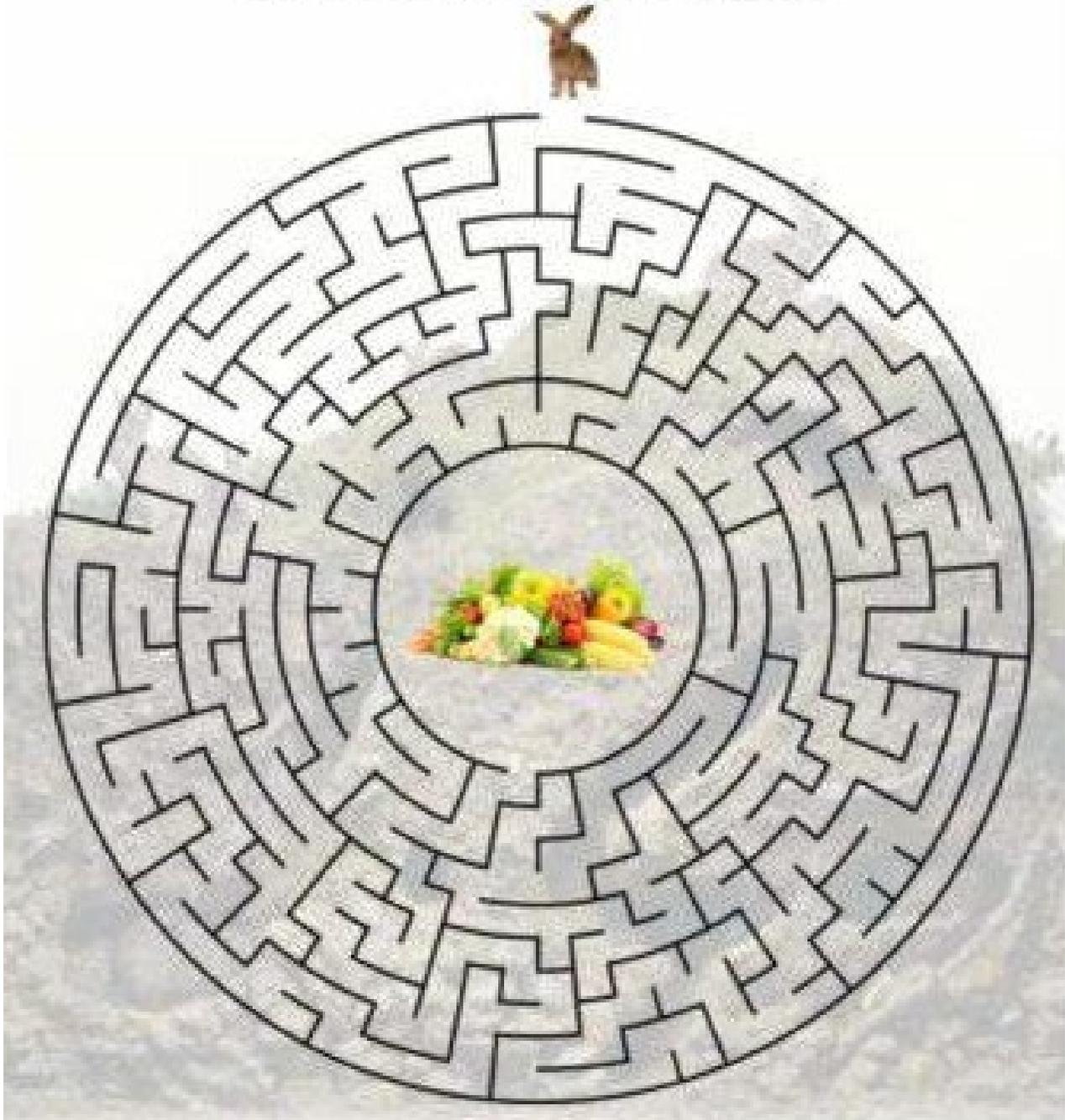
Mini 4-H Rabbit Parts



ACTIVITY: *Rabbit Warren Maze*

Rabbit habitats include meadows, woods, forests, grasslands, deserts and wetlands. Rabbits live in groups, and the best-known species, the European rabbit, lives in underground burrows, or rabbit holes. A group of burrows is called a warren.

Instructions: Help the rabbit find its way to where it stores its food!



Alpaca



Alpacas

Llamas and alpacas have been used by humans for transportation and fleece production for a few thousand years. Both species are primarily found in Peru and Bolivia and are part of the camel family, Camelidae. Alpacas and llamas are two of the four lamoid species—the other two species, vicuña and guanaco, are their wild cousins. Interestingly, all four species are able to interbreed and create fertile offspring. While often conflated, alpacas and llamas differ in key ways. The most-distinguishing physical differences between alpacas and llamas are their size, their hair, and their face shapes. Also, they differ in disposition, which affects the way humans have used them over the years.

The most-noticeable difference between the two animals is their sizes. Alpacas are smaller, around 90 cm (35 inches) high at the shoulder and between 55 and 65 kg (121 to 143 pounds). Llamas are the biggest lamoid at about 120 cm (47 inches) at the shoulder and about 113 kg (250 pounds). So, llamas are going to be a lot bigger than their cousins. Their faces are also dissimilar: alpacas have small, blunt faces with short ears, while llamas have more-elongated faces with banana-sized ears.

Another key difference is their hair. Alpacas have shaggy hair that is used for fleece production. Their hair color can vary greatly, from whites and light yellows to browns and blacks. Llamas' hair is coarser, and their wool is considered inferior, but llama breeders are working to create a llama breed with finer, softer hair.

Humans usually use llamas as pack animals, since they can carry a generous amount of weight. The average llama can carry a load of 45 to 60 kg (99 to 132 pounds) for up to 30 km (18.6 miles) each day. Yet llamas get a bad reputation, since, when overloaded or maltreated, they react by spitting, kicking, lying down, or refusing to move. Usually, however, they are gentle creatures. Alpacas, on the other hand, are a bit more timid and like to stay with their herd. Llamas can be used as guard animals for livestock like alpacas and sheep.

Source: Britannica.com

ACTIVITY: All About Alpacas

Instructions: Circle each word within the word search.

A L B L C B M U H F
M L N Y O F S L L Q
A H P D B Z G E G H
M P Y A M A E Z K B
M P O V C C I R U S
A D O L E A J R V E
L R Q R L T C M C E
Q E Q Y O A E J S V
W H M B K Z G C C W
L I V E S T O C K Y

alpaca
fleece
hum
suri

body
gallop
livestock

cria
herd
mammal

Alpaca Fiber (Fleece)

According to Alpaca Owners Association, Inc.* - Alpacas are raised for their soft and luxurious fleece (sometimes called fiber). Each shearing produces roughly five to ten pounds of fleece per animal, per year. This fleece, often compared to cashmere, can be turned into a wide array of products from yarn and apparel to tapestries and blankets. The fleece itself is recognized globally for its fineness, softness, light-weight, durability, excellent thermal qualities, and luster.

In addition to selling the fleece and the animals, many alpaca owners operate a retail store selling alpaca end-products—either on or off their farms. Products are sold directly to consumers at their store or over the Internet. Many also sell alpaca products through craft fairs, farmers markets, and retail sites. Sales of these end-products can provide considerable supplemental income to alpaca owners.

Let's start by comparing alpaca fleece with wool from most breeds of sheep. In general, alpaca fleece is stronger, lighter, warmer, and more resilient. Finer grades of alpaca fleece (known commercially as "Baby Alpaca") are believed to be hypo-allergenic, meaning it does not irritate your skin as sheep's wool sometimes does. Unlike sheep's wool, alpaca fleece contains no lanolin and is therefore ready to spin after only nominal cleaning. Prized for its unique silky feel and superb "handle," alpaca fleece is highly sought-after by both cottage-industry artists (hand spinners, knitters, weavers, etc.) as well as the commercial fashion industry.

Alpaca fleece has a great variety of natural colors, making it very much in vogue: 16 official colors (white; beige; and shades of fawn, brown, black, and grey) with many other subtle shades and hues. White, light fawn, and light grey can be readily dyed, thus offering a rainbow of colors for the fiber artist. Alpaca fleece can also be combined with other fine fibers such as merino wool, cashmere, mohair, silk, and angora to attain incredibly interesting blends.

Resource: <https://www.alpacainfo.com/academy/alpaca-fiber>

ACTIVITY: *Alpaca Fiber Uses*

Instructions: Cross out the items that could **NOT** be made with alpaca fiber/fleece!

Poncho



Salad



Felt for Felting



Baseball Bat



Socks



Chickens



Chickens

The Indiana Poultry Association has several resources to help interested people raise chickens in a safe and healthy way.

There are many reasons for raising chickens. People raise chickens for eggs, meat, exhibition, and rare breed preservation, as well as for the enjoyment of raising, caring for, and watching their interesting behavior. Some people raise them to hear a rooster crow to symbolize past days on the farm. There is a wide array of chicken breeds. Choosing the right type of chicken can be difficult. The purpose of this publication is to help beginners determine which types of chickens are most suited to their needs.

EGG PRODUCTION: White Leghorns (pronounced leggerns) are prolific layers of white eggs. Golden Comets and Red Sex Links are excellent layers of brown eggs. In general, chicken breeds with white ear lobes lay white eggs, whereas chickens with red ear lobes lay brown eggs.

EGGS AND MEAT: Dual purpose breeds include several American and English breeds such as Plymouth Rocks, Sussex, and Wyandottes. These breeds lay reasonably well and are large enough for meat production.

MEAT: For meat production only, nothing compares with the fast growth of Cornish Cross (White Cornish x White Plymouth Rock). They reach 4-5 lbs in 6 weeks and 6-10 lbs in 8-12 weeks.

EXHIBITION: Exhibition poultry shows are popular in Indiana and the Midwest. The American Poultry Association (APA) publishes, The American Standard of Perfection. This illustrated book gives a complete description of all recognized breeds and varieties of domestic poultry. Chickens are judged according to those descriptions of ideal breed type, color, weight, and other characteristics for the particular breed and variety. Bantams, in most cases, outnumber large fowl at poultry shows. Bantams are 1/4 or less the size of large fowl. They are easier for young 4-H members to handle, eat less feed and take up less space than large fowl. Although smaller, their eggs are just as good to eat as large chicken eggs.

Some of the most popular exhibition bantam breeds are Old English Game, Cochins, Plymouth Rocks, and Wyandottes. Some of the most popular large fowl breeds in the showroom are Rhode Island Reds, Plymouth Rocks, Black Australorps, and Leghorns. A tremendous variety of other breeds is also available. They vary in type, size, color, shape, comb type and other attributes. Exhibition large fowl breeds are divided into classes generally based on their origin.

American breeds were developed for dual purpose use on farms. These include the Plymouth Rock, Rhode Island Red, New Hampshire, Wyandotte, and others.

Asiatic breeds are characterized by their massive size and feathered feet. They include the Brahma, Cochin, and Langshan. English breeds are characterized by their dual purpose use and white skin. They include Orpington, Sussex, Australorp, and Cornish.

Continental breeds are characterized by their European origins, active flighty dispositions, and ornamental characteristics. These include the crested Polish, colorful Hamburgs, and bearded Faverolles.

Mediterranean breeds are characterized by their active flighty dispositions, laying of white eggs, nonbroodiness, and flying expertise. Examples are Leghorn, Ancona, and Minorca.

The remainders of breeds are included in the Any Other Standard Breed (AOSB) class. These include the long-tailed Sumatra and Phoenix, as well as the blue egg layers, the Araucana and Ameraucana.

Backyard chicken raising can be a satisfying hobby, whether raising birds for eggs, meat or exhibition. By knowing which types of chickens to raise for particular needs, you can save time, money, and increase your enjoyment of raising poultry.

Written by Doug Akers, Pete Akers, and Dr. Mickey A. Latour

Source: <https://www.inpoultry.com/poulttrysuperintendentresources>

Chicken Eggs

A chicken **embryo** needs nutrients, water, oxygen, and the proper temperature and **humidity** to develop into a healthy **chick**. An egg contains most of what a chick needs for survival while developing within the shell. Identifying the parts of a chicken egg and their functions can help students understand how a chicken embryo survives and develops.

The egg's shell has more than 7,000 tiny pores that allow oxygen to pass into the egg and carbon dioxide to pass out. The inner and outer membranes, found between the eggshell and the egg white, keep bacteria from entering the egg and help to slow evaporation of moisture from the egg. The air cell, located between the inner and outer membranes at the large end of the egg, holds oxygen for the chick to breathe. The pores in the eggshell are larger and more numerous at the large end of the egg. This allows oxygen to enter the air cell easily. Just before hatching, the chick uses its egg tooth to puncture the air cell, which will provide about six hours of oxygen for the chick while it pecks its way out of the shell. The albumen (al **byoo** min), or the egg white, cushions the egg yolk floating within it and is the main source of protein and water for the embryo. The yolk provides food for the embryo. It is made up of fats, carbohydrates, proteins, vitamins, and minerals. The chalazae (kuh **ley** zee) are cords on two sides of the yolk that keep the yolk floating in the center of the albumen. Chalaza (kuh **ley** zuh) is the singular form. The germinal disc is the white spot on the yolk. This is where the female's genetic material is found. When the egg is fertilized, the germinal disc becomes known as the blastoderm. This is what develops into a chick during **incubation**. As the embryo develops, blood vessels attach to the yolk to access nutrition and to the inner membrane to access oxygen and release carbon dioxide.

Typically, the mother **hen** lays one egg per day until she has completed a **clutch** of about 8–13 eggs. If the eggs have been fertilized by a **rooster**, chicks may grow and develop inside given the right conditions. Once she has a full clutch, the mother hen begins **brooding**, only leaving the nest at dawn or dusk to feed. Because the hen's body temperature is generally 105–106°F, she is able to heat the eggs to 100–101°F by sitting on them. Incubators can substitute for the warmth of a hen, but must maintain the proper temperature.

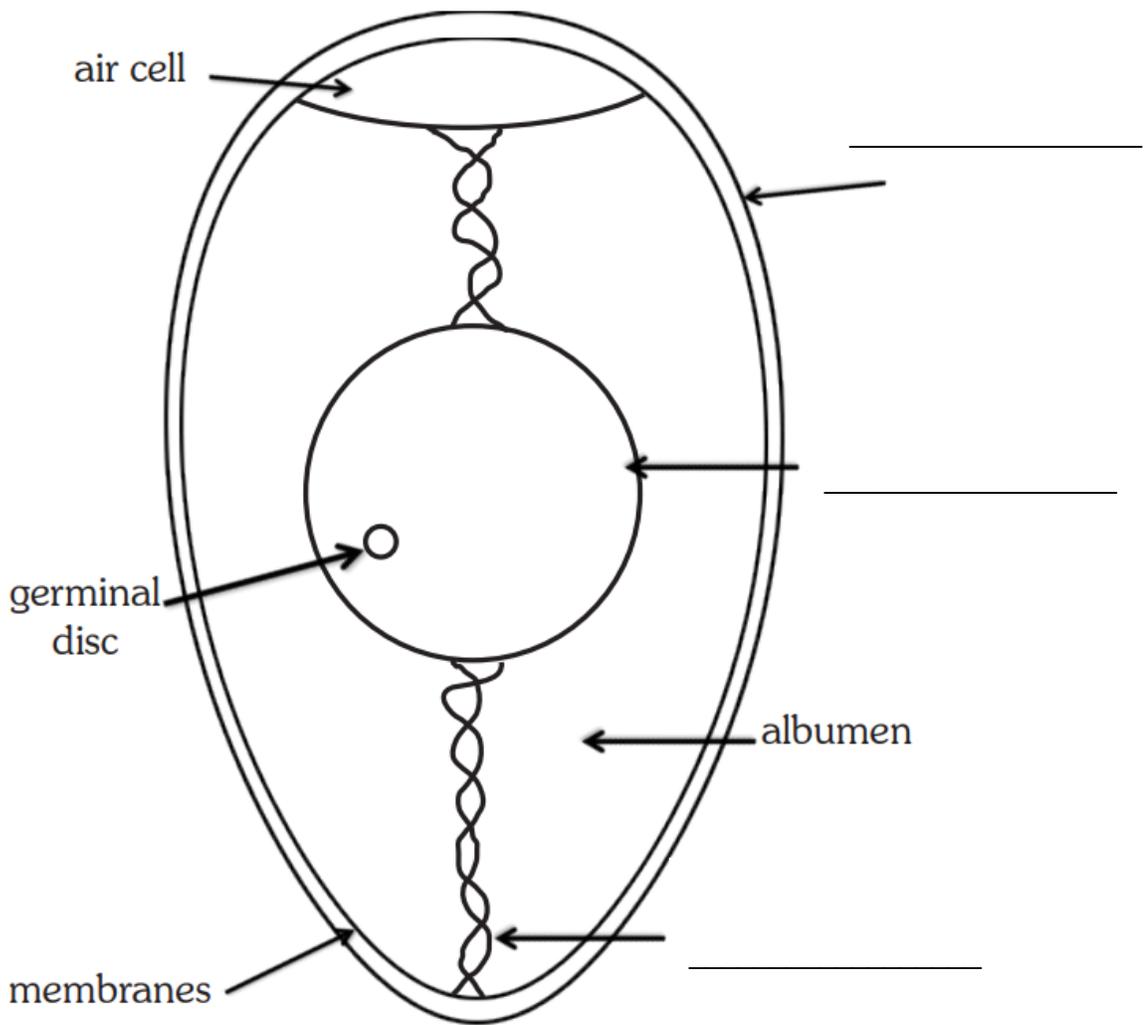
Source: <https://agclassroom.org/matrix/lesson/541/>

ACTIVITY: Parts of an Egg

Instructions: Review the parts of an egg with your mentor and fill in the blanks with the words provided.

WORDS: shell yolk chalaza

Parts of an Egg Diagram



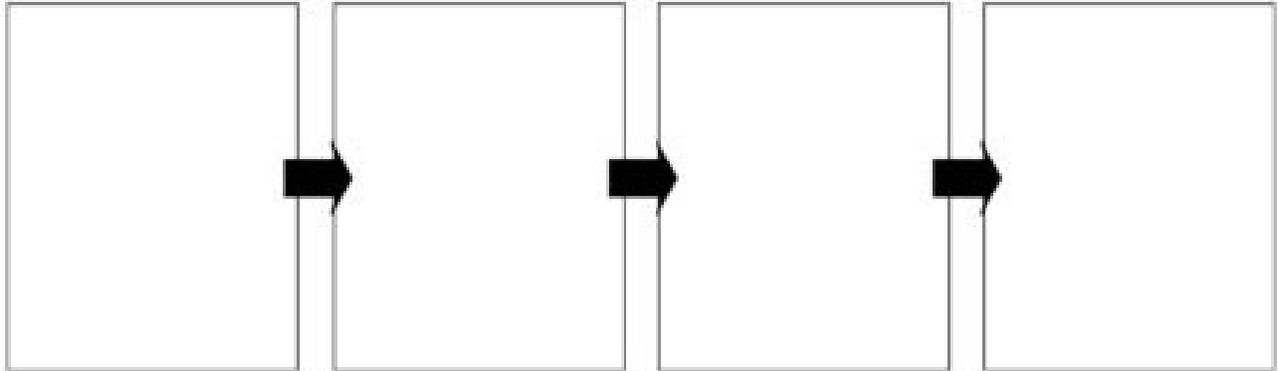
ACTIVITY: *The Life Cycle of a Hen*

Instructions: Cut out the pictures and glue them in the right order.

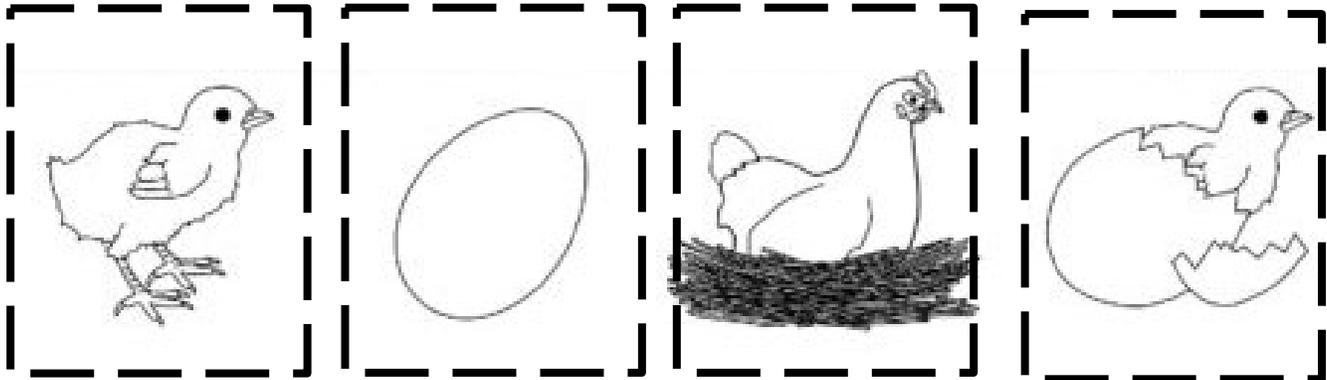
The life cycle of a hen

© Copyright 2012 www.pearson.com

Cut out the pictures and stick them on in the right order.

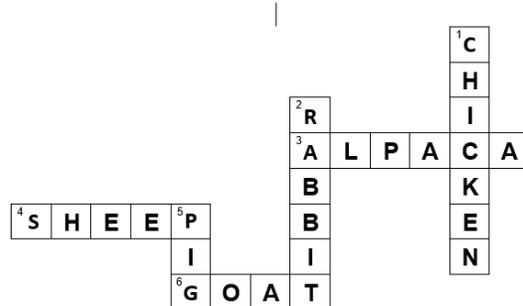
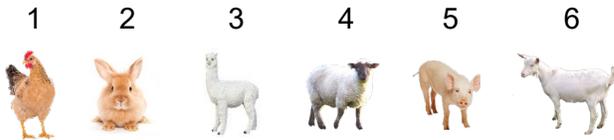


CUT HERE

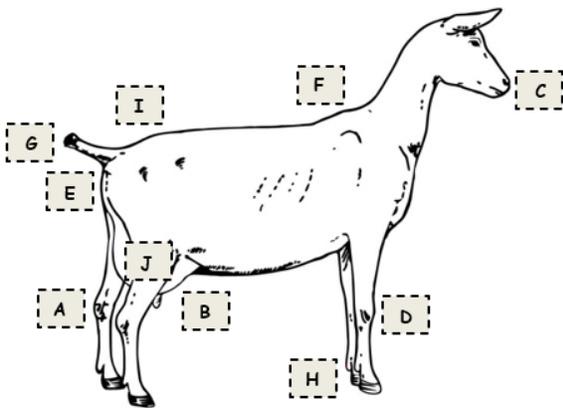


ANSWER PAGES

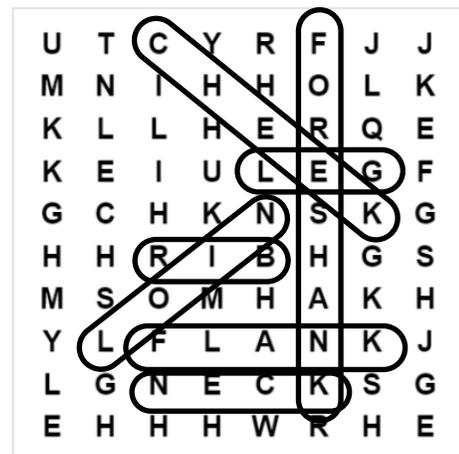
Activity: Crossword



Activity: Parts of a Dairy Goat



Activity: Meat Goat Cuts

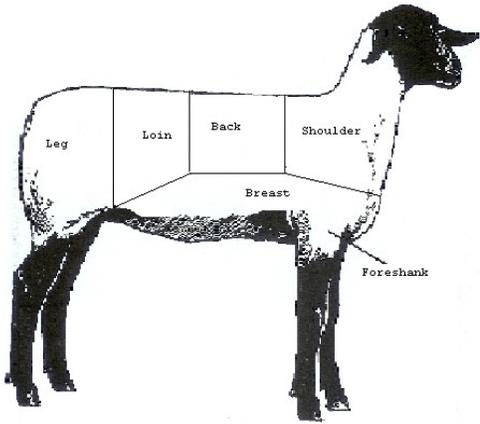


Activity: Sheep Trivia

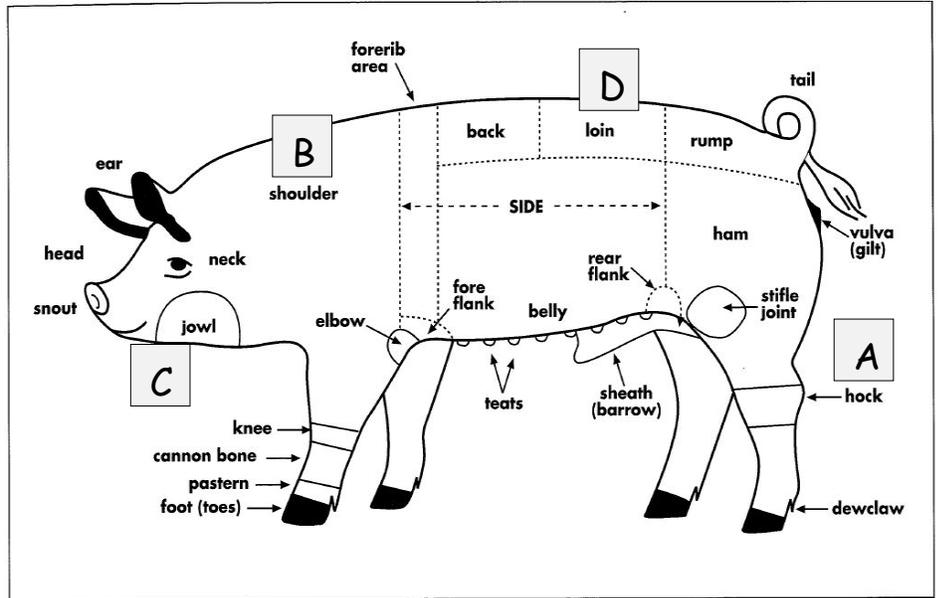
Instructions: Draw a line from each question to the correct answer on the right.

- | | | |
|---|-------|-------------------|
| 1. What is fleece? | _____ | Ewes |
| 2. Sheep live in groups called _____. | _____ | Flocks |
| 3. Who used wool to make sails to sail across the Atlantic Ocean? | _____ | 1/5 pound |
| 4. How many pounds of wool are needed to make 1 mile of yarn? | _____ | Texas |
| 5. What are female sheep called? | _____ | The animal's coat |
| 6. Which state raises the most sheep? | _____ | Vikings |
| 7. What ingredient from sheep is found in some lotions? | _____ | Lanolin |

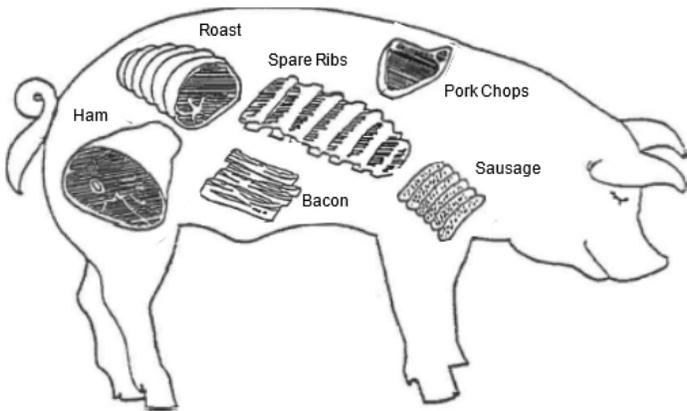
Activity: Cuts of Meat from a Lamb



Activity: Body Parts of a Pig



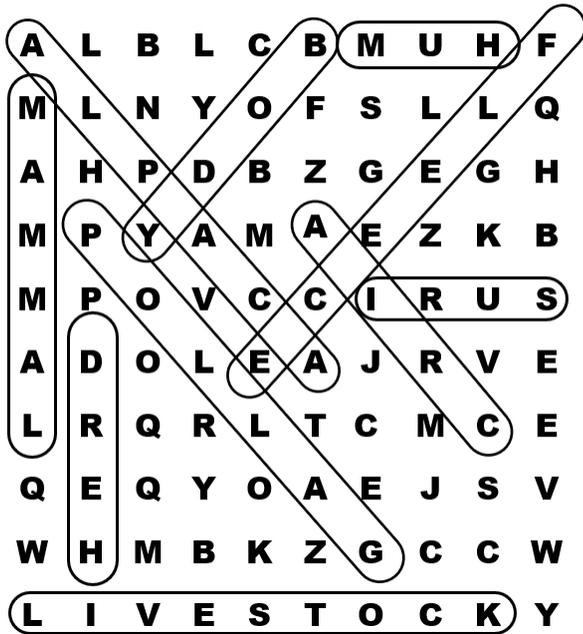
Activity: Pork Cuts



Activity: Rabbit Warren Maze



Activity: All About Alpacas

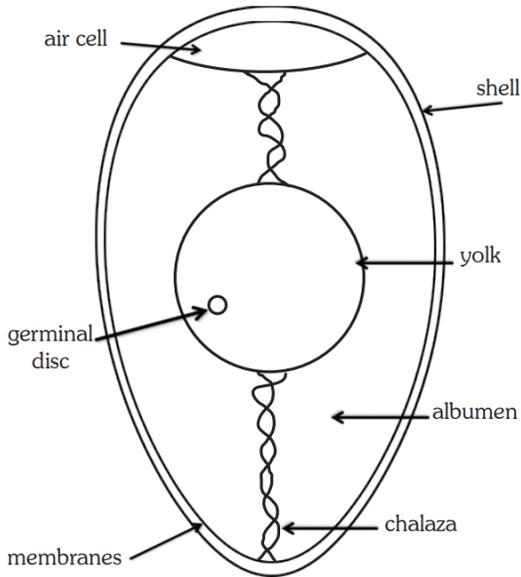


Activity: Alpaca Fiber Uses

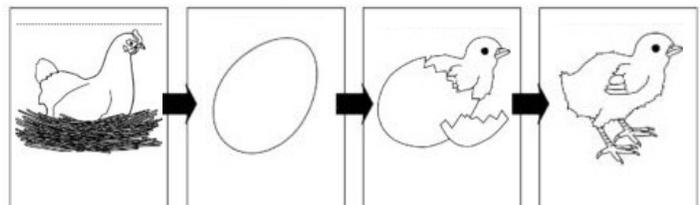


Activity: Parts of an Egg

Parts of an Egg Diagram



Activity: The Life Cycle of a Hen



Showing an Animal Checklist

In order to show an animal at the Hendricks County 4-H Fair in the Mini 4-H Showing Livestock Project, Mini 4-H members must complete **at least THREE (3) of the activities listed below** with their mentor. Write the date you complete each activity and have the mentor sign to verify completion. You can do several different activities or the same activity several times. The only species available for Hendricks County will be Alpacas, Goats, Poultry, Rabbits, Sheep, and Swine!!

***Submit a copy of this form on FairEntry to receive a tag for showing! ***

Name of Mini 4-Her: _____

Name of Mentor: _____

Mentor's 4-H Club: _____

Species Mini 4-H Member will Show: _____

SUGGESTED TASK LIST	Mentor Initials	Date Completed
Attend a Hendricks County 4-H Livestock club/project meeting and get hands-on experience with live animals (list of project/club meetings listed below)		
Attend the hands-on Mini 4-H livestock meeting.		
With a parent or guardian, visit your mentor's farm/barn to learn more about the animal you will be showing		
Name the parts of a livestock animal you are studying.		
Attend a livestock show to learn more about how your animal is shown.		
Complete the activities in this manual for your species.		
Other (Create your own activity):		
Other (Create your own activity):		
Other (Create your own activity):		

NOTE: Regular 4-H members are required to participate in a quality assurance program in order to exhibit their animal. Mini 4-H members do not have to take this training.



DUE NO LATER THAN MAY 15!!



Mini 4-H Mentor/Mentee Information

Mini 4-H Member Name: _____

Township of Mini 4-H Member: _____

Species that Mini 4-H Member wants to show (circle ONE)

Alpaca Dairy Goat Meat Goat Poultry Rabbits Sheep Swine

If you **HAVE** a mentor already, please complete the following information:

Mentor's Name: _____ Mentor's Grade: _____

Mentor's Contact Information:

Phone: _____ Email: _____

Mentor's 4-H Club: _____

How do you know the Mentor?

If you **DO NOT HAVE** a mentor already and would like to request one, please complete the following information:

What is your experience with showing the species you circled above? Please circle your answer.

I have NEVER shown ANY livestock before and have little to NO experience showing.	I have shown animals, but NOT this species . I have SOME experience showing.	I have shown this species before but only have SOME experience.	I have shown this species SEVERAL times and am VERY experienced .
--	---	--	---

What are you wanting to learn most about this species?

Work with your parent/guardian to circle words that you think best describe you so we can partner you up with a mentor who we think would be a good match.

Outgoing Shy Excited Reserved Patient
Determined Calm Independent Team-player Responsible
Other: Other: Other:

If you have any additional questions, please contact the Purdue Extension – Hendricks County Office at 317-745- 9260 or email hendrces@purdue.edu.

Mini 4-H Liability Release Form

The safety and well-being of our 4-H youth is of the utmost importance. Although first grade is specified as the time when a child may begin participation in some 4-H events and activities, parents are encouraged to take into consideration their child's physical and mental development before agreeing to let the child begin to show, work with, or care for animals. Each child matures at a different rate, and children in grades 1-2 may still be too young to begin showing, working with, or caring for animals.

The Indiana 4-H Youth Development Program at Purdue University has agreed to allow Mini 4-H members in grades 1-2 to participate in NON-COMPETITIVE animal projects subject to certain conditions. These conditions are specified below.

"Mini 4-H members, in grades 1 through 2, will be allowed to show, work with, or care for animal projects after their parent or legal guardian has signed a liability release. Mini 4-H members may independently show, work with, or care for animals that weigh 300 pounds or less. Mini 4-H members may only show, work with, or care for animals over 300 pounds when they are assisted by a parent, legal guardian, or another adult designated in writing by parent or legal guardian." *(The word assisted means that the adult has control of the animal at all times.)*

I understand that participating in 4-H activities can involve certain risks to my child. On behalf of my child, I accept those risks. I hereby release and discharge Purdue University, The Trustees of Purdue University, the Hendricks County Commissioners, the Hendricks County Cooperative Extension Service, and each of their trustees, officers, appointees, agents, employees, and volunteers ("Released Parties") from all claims which my child or I might have for any injury or harm to my child, including death, arising out of my child's participation in a Mini 4-H animal activity(ies), even if such injury or harm is caused by any of the Released Parties. I do not, however, release these individuals and entities from liability for intentional, willful or wanton acts and this release shall not be construed to include such acts.

Mini 4-H member's name

Other Adult Designee - Print Name

Signature of Parent/Legal Guardian

Date

Signature of Parent/Legal Guardian

Date

4-H Mentor Information

Please provide your Mini 4-H Mentor this page and the next 3 pages.



Hello and Thank You!

THANK YOU for mentoring a Mini 4-H Member who is interested in showing an animal! The following pages are resources for you to review as you prepare for your role as a Mentor. Below are a few guidelines for you to follow and some information for you as you work with your Mini 4-H Member.

1. The animal that the Mini 4-H member will show at the Hendricks County 4-H Fair will be YOUR animal. It will be shown in a non-competitive class at a designated time. It will not count against you. It MUST be an animal that you intend to show at the Fair and meets all of the required identification guidelines and deadlines.
2. You are expected to help your Mini 4-H member complete at least three of the five activities listed in their book for showing. The Mini 4-H member should work with you to complete the task list items. These items include:
 - a. Attend a Hendricks County 4-H Livestock club/project meeting and get hands-on experience with live animals (list of project/club meetings listed below).
 - b. Attend the hands-on Mini 4-H livestock meeting.
 - c. With a parent or guardian, visit your mentor's farm/barn to learn more about the animal you will be showing.
 - d. Name the parts of the livestock animal that you will be studying.
 - e. Attend a livestock show to learn more about how your animal is to be shown.
 - f. Complete the activities in this manual for your species.
3. Mini 4-H is a chance for 1st and 2nd graders to explore different areas of 4-H, without the competition piece. Education and safety are always important. Be sure to spend time working with your Mini Mentee to educate and prepare them for safely showing the animal.
4. Prepare your Mini 4-H member for show by going over the animal he/she will be showing. Help them understand how the animal is identified (tags, ear notches, tattoos, etc.) and why it is important.
5. Understand differences – everyone is different. Your Mini Mentee may know a lot or not a lot about showing animals. Be prepared to be patient as they learn.
6. If at any time, you decide that being a mentor is not for you, PLEASE alert your species Club Leader or the Extension Educator so that we may help the Mini Mentee find a new Mentor.

If you have questions, please contact the Purdue Extension - Hendricks County Office at 317-745-9260 or email hendrces@purdue.edu. Thank you again for becoming a Mentor to a Mini 4-H Member!

Planning Space: Use this to create a plan with your Mini 4-H Member after reviewing the Mini 4-H Mentor/Mentee Information.

Remember that the real object of 4-H is to develop children into outstanding, productive adults. The way they do their work, projects, and meetings, and conduct themselves at competitive events, etc., will help set work and character standards for the rest of their lives.

Essential Elements of Effective 4-H Youth Development Programs



Research on youth development has documented the important role that youth development programs like 4-H play in the lives of young people. This research has identified a set of Essential Elements that form the foundation of the program's approach to positive youth development. The 4-H Youth Development Program fosters an environment for young people to develop a sense of Belonging, Mastery, Independence, and Generosity.

BELONGING

Youth need to know that others care about them and they need to feel a sense of connection to others in the group. Current research emphasizes the importance for youth to have opportunities for long-term, consistent relationships with adults other than parents. This research suggests that a sense of belonging may be the single most powerful positive ingredient we can add to the lives of children and youth.

4-H gives youth the opportunity to feel physically and emotionally safe while actively participating in a group by:

- Affiliating with local programs, clubs and projects.
- Forming short- and long-term relationships with adults, peers, and youth of different ages.
- Being a member or participant of a recognized group in the community.

MASTERY

In order to develop their self-confidence, youth need to feel and believe that they are capable and they must experience success at solving problems and meeting challenges to develop their self-confidence. Additionally, youth need to have a safe environment for making mistakes and getting feedback, not just through competition, but also as an ongoing element of participation. Finally, youth need sufficient breadth and depth of topic to allow them to pursue their own interests.

Through 4-H projects and activities, youth master skills to make positive career and life choices by:

- Having the opportunity to learn-by-doing through experiential education.
- Concentrating on topics and projects of interest over multiple years to develop mastery.
- Developing a wide range of "life skills" such as teamwork, problem solving, planning/organizing, record keeping, goal setting, financial management, and other marketable skills.

INDEPENDENCE

In order to develop their self-confidence, youth need to feel and believe they are capable, and they must experience success at solving problems and meeting challenges. They need to know that they are able to influence people and events through decision-making and action. They need opportunities to understand themselves and become independent thinkers.

Through 4-H leadership development opportunities, youth mature in self-discipline and responsibility and become independent thinkers by:

- Practicing decision-making through participating as a club member.
- Assuming responsibility as a club officer.
- Providing leadership through participation as a Junior or Teen Leader or as a committee member at the local, area, state, or national level.
- Learning to accept responsibilities and to exercise self-discipline and self-control in fulfilling obligations.

GENEROSITY

Youth need to feel that their lives have meaning and purpose and an understanding that they live in a global community, which requires awareness and compassion for others. They need experiences that provide the foundation to help them understand the "big picture" of life and find purpose and meaning.

4-H community service projects and citizenship activities allow 4-H members to see that their efforts to help others are important and valuable by:

- Connecting to their community and feeling a part of something larger than themselves.
- Sharing time and other resources to assist others.
- Acknowledging and working with those with whom they share space and resources.
- Learning to accept differences, resolve conflict, and empathize with others.

Apply What You Learned

How can you promote the Essential Elements with your Mini 4-H Member Mentee?

Belonging: _____

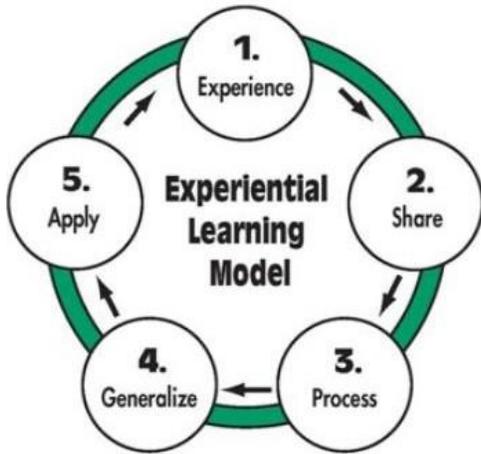
Mastery: _____

Independence: _____

Generosity: _____

Learning

In 4-H Youth Development



Pfeiffer, J.W. & Jones, J.E. "Reference Guide to Handbooks and Annuals"
© 1983 John Wiley & Sons, Inc.
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Learning Method

4-H promotes youth learning-by-doing and utilizes a methodology called Experiential Learning, which engages learners in an activity that...

- Is direct and hands-on
- Uses open-ended questions that invite further discussion and interaction
- Allows participants to discuss the experiences they had while doing teactivity
- Results in active reflection and discussion of the activity by the participants
- Makes connections between the activity and the real-world examples
- Applies the outcomes of the activity to one or more independent situations

Experiential Learning Cycle

The most widely used model of experiential learning in the 4-H Youth Development Program utilizes the 5-step cycle as shown in Figure 2.

Experience: Do It! Begin with a concrete experience. This can be an individual activity or a group activity, but it involves doing something with little or no help from the leader. Ask youth to rate an item. For instance, "Which product costs more?" Additionally, you can create exhibits, role-play, give a demonstration, problem-solve, or

play a game.

Share: What happened? Get the group or the individual to talk about the experience. Share reactions and observations in the group. Answer the questions: "What did you do?", "What did you see?", "Feel?", "Hear?", "Taste?", "What was the most difficult part of the experience?", "The easiest part?" Let the group talk freely.

Process: What's Important? Discuss, analyze, reflect on, and look at the experience. Youth should talk about how themes, problems and issues are brought out by the experience and how they were addressed. Discuss how questions are created by the activity. Ask more questions! Analyze the ~~exper~~

Generalize: So, What? Support youth in finding trends or common lessons in the experience that can be applied to the real world, not just the specific topic. Identify key terms or real-life principles that capture the meaning.

Apply: Now What? Talk about how the new information can be applied to everyday life now or sometime in the future. Apply what was learned to a similar or different situation. Practice what was learned. Providing a hands-on learning experience alone does not create "experiential learning." The experience itself comes first.

The learning comes from the thoughts and ideas created in sharing, processing, generalizing, and applying the experience.

Learning Styles

People have different learning styles.

Some of us are visual or spatial learners. We think in pictures and learn best from visual displays, such as diagrams, illustrated books, videos and streaming videos, handouts, and flip charts. Visual learners are best at skills that include puzzle building, reading, writing, understanding charts, demonstrating a good sense of direction, painting, designing practical objects, and interpreting visual images.

Some of us are auditory learners. We learn best through

verbal lectures, discussions, talking things through, and listening to what others have to say. Written information may have little meaning until it is heard or read aloud. Auditory learners are best at skills such as listening, speaking, explaining, writing, using humor, remembering information, or telling a story.

Kinesthetic learners learn better through moving, doing, and touching. They take a hands-on approach, actively exploring the physical world around them. Youth may find it hard to sit still for long time periods and may become distracted by their need for activity and exploration. The skills these learners may master easily are physical coordination, dancing, sports, hands-on experimentation, crafts, acting, or using their hands to create or build.

Apply What You Learned

How would you include each step of experiential learning into a project or activity?

Experience: _____

Share: _____

Process: _____

Generalize: _____

Apply: _____

Working with 4-H Youth



Youth Characteristics

Youth mature in many ways: physically, mentally, emotionally, and socially.

To be successful, youth must acquire new skills, knowledge, and abilities. It is also during childhood and adolescence that youth begin to branch out socially and build new or additional relationships.

Development during this timeframe can vary from one child to the next. Every child grows and develops at his or her own rate. Some children may acquire certain capabilities earlier than their peers, while others may outpace their classmates in physical growth, but be behind in other developmental areas.

Ages & Stages

K-3rd grade: usually have a relatively short attention span. They have limited manual dexterity and hand-eye coordination, as well as limited reading and writing skills. As a result, these members can be sensitive to personal criticism.

4th-5th grade: can have boundless energy along with an increased attention span. They tend to have a need for self-expression through self-directed activities, and they enjoy both cooperation and limited degree of competition.

6th-8th grade: fluctuate between childhood and adulthood. They are experiencing physical, emotional, and social changes. Their project skills and communication abilities are advancing, but are often controlled by their emotions. They have a need to find acceptance from both peers and adults and tend to enjoy competition.

9th-12th grade: enjoy leadership opportunities that allow them to exercise their developing skills in adult roles. They are fine-tuning their interests and explorations of career possibilities.

Teaching Opportunities

Publications: 4-H publications and websites can be a big help to you in project work. Project outlines, manuals, or guides are available in many subject areas.

Visuals: Videos, live streaming, pictures, and models are useful for helping members see how to do things. Visuals also provide a change of pace in project work and may show members new areas to explore.

Presentations: A volunteer or older member can give a presentation to share knowledge and skills with others in a meeting. Members should be asked to give presentations before their project group on skills or knowledge they have mastered or learned. Members should also be encouraged to repeat their presentation at their club meeting before parents, or for other activities and events. As they progress, members will assume an increasing amount of responsibility for choosing the subject of their presentations, preparing the presentations, and evaluating their efforts.

Identification: Many young people enjoy learning how to identify project-related items, such as the names of the kitchen tools or parts of an animal's anatomy. Learning basic project terms may help a young person gain self-confidence as well as knowledge. If possible, have the actual items available for members to work with in a real situation when you lead an identification exercise.

Judging: In 4-H we use judging as a tool to help young people learn to observe, compete, make decisions, and categorize differences and similarities between things. At first, give a member two similar types of items to observe and compare to each other. Ask him or her to share ways one item is different from another. As the member gains confidence in judging, ask him or

her to rank four related items from best to worst. Have the member give his or her reasons for ranking each item.

Competitions: Competitions are prevalent throughout the 4-H programs to inspire youth to do their personal best based on the goals they have set for themselves. Emphasis should be placed on positive, constructive feedback so youth can reflect and learn from the experience. Competitions develop good sportsmanship and resiliency, helping youth realize that they can overcome disappointments. Note: Mini 4-H members should not participate in competitions; rather, Mini 4-H programs are activity-focused and not project-focused; they are built on cooperative learning, not competitive activities.

Tours: Young people like to go places and see things. Tours of members' projects can be quite a boost for members and their

families. Everyone gets a chance to compare methods and measure their individual progress. Members can discuss their experiences, display their work, or give a presentation.

Commercial enterprise such as bakeries, retail stores, and restaurants often welcome 4-H group tours of their operations. Members should prepare ahead of time with questions to ask the owners or operators about the business.

Record Keeping: 4-H records give young people practice in planning and measuring progress. Be sure to explain early in the project year that members need to keep records of their experiences in 4-H. Be positive and give encouragement to help your members learn from their experiences and find alternative solutions when problems arise.

Apply What You Learned

Use a variety of methods or opportunities to work with 4-H members.

Identify the characteristics of a Mini 4-H Member.

List how you will involve community or program resources with your Mini 4-H Member Mentee.

How will you use a variety of teaching opportunities with the Mini 4-H member you are working with?
