

Sheep Skill-a-thon Study Guide

This packet contains study material for the annual skill-a-thon contest. Every member taking a livestock project is encouraged to look over this material. Not every skill-a-thon station is represented in this packet. Members are also encouraged to use other resources to study (ie. Online resources and livestock resource books). These packets are the members' to keep; they do not need returned to the Extension Office.

Feed samples are available upon request. (These will need returned to the Extension Office).

As always, if you have any questions please call the Extension Office at 419-354-9050.

Originating in Southern England these sheep can be polled, scurred, or horned and are known for breeding out of season, being heavy milkers and producing more than one lamb crop per year. Hardy lambs yield heavy-muscled carcasses.

This polled breed with black head and legs has the most number of purebred registrations in the U.S. It is known for its meatiness and high carcass quality. Lambs grow rapidly and produce high cutability carcasses.

Developed in the United States from a Lincoln ram x Rambouillet ewe cross and known for its size, wool-producing ability, and productivity under range conditions. This breed is large, white-faced, polled, and has wool on the legs.

Originating in England, this medium-sized, dark-faced, polled breed has wool on its head and face. It is prolific, matures early, milks well, and is heavily muscled. Lambs are hardy, fast-growing and produce lean, well-muscled carcasses.

This breed, highly adaptable to a variety of climates, was developed in Scotland. These small-sized, white-faced sheep with bare heads and legs are moderately prolific, easy lambers, good milkers, and possess excellent lamb vigor.

Developed in Southern England, these sheep are a large, moderately prolific breed with wool caps, black faces, and medium-wool fleeces. They also have very good milking ability, growth, and carcass cutability.

The oldest breed from England, this sheep is small to medium in size and known for producing meaty carcasses. It is polled, with a gray to mouse brown face and wool on its legs. Fleece from this breed are of medium-wool.

White-faced breed developed in New Zealand from Lincoln and Leicester x Merino crosses. These medium-sized sheep are prolific, good mothers that produce good market lambs and yield heavy, medium-wool fleeces with good staple length.

Developed in France, this long-lived, rugged breed will breed out of season and has wool that is fine in fiber diameter. These sheep are large, white-faced, with wool on the head and legs, and can be polled or horned.

This small- to medium-sized, fine-boned breed is open faced and produces medium-grade, good staple length wool. Reaching sexual maturity early, ewes have strong maternal instincts and are very prolific - producing 2 to 4 lambs each lambing.

Originating in Southern England these sheep can be polled, scurred, or horned and are known for breeding out of season, being heavy milkers and producing more than one lamb crop per year. Hardy lambs yield heavy-muscled carcasses.

DORSET

Developed in the United States from a Lincoln ram x Rambouillet ewe cross and known for its size, wool-producing ability, and productivity under range conditions. This breed is large, white-faced, polled, and has wool on the legs.

COLUMBIA

This breed, highly adaptable to a variety of climates, was developed in Scotland. These small-sized, white-faced sheep with bare heads and legs are moderately prolific, easy lambers, good milkers, and possess excellent lamb vigor.

CHEVIOT

The oldest breed from England, this sheep is small to medium in size and known for producing meaty carcasses. It is polled, with a gray to mouse brown face and wool on its legs. Fleece from this breed are of medium-wool.

SOUTHDOWN

Developed in France, this long-lived, rugged breed will breed out of season and has wool that is fine in fiber diameter. These sheep are large, white-faced, with wool on the head and legs, and can be polled or horned.

RAMBOUILLET

This polled breed with black head and legs has the most number of purebred registrations in the U.S. It is known for its meatiness and high carcass quality. Lambs grow rapidly and produce high cutability carcasses.

SUFFOLK

Originating in England, this medium-sized, dark-faced, polled breed has wool on its head and face. It is prolific, matures early, milks well, and is heavily muscled. Lambs are hardy, fast-growing and produce lean, well-muscled carcasses.

SHROPSHIRE

Developed in Southern England, these sheep are a large, moderately prolific breed with wool caps, black faces, and medium-wool fleeces. They also have very good milking ability, growth, and carcass cutability.

HAMPSHIRE

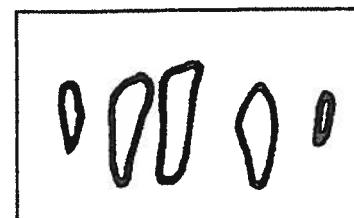
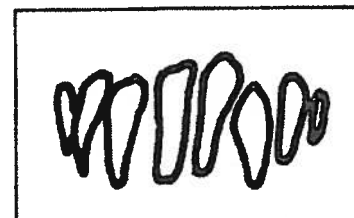
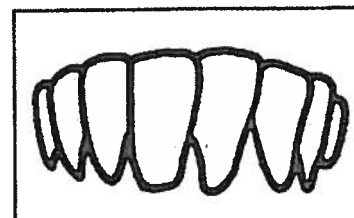
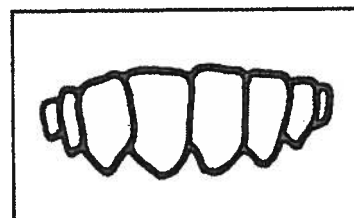
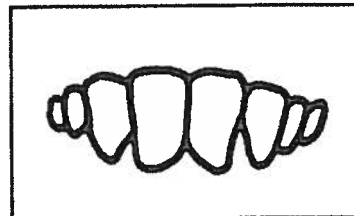
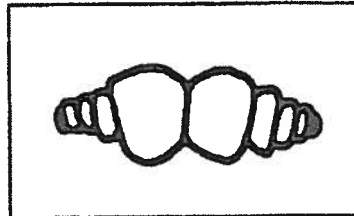
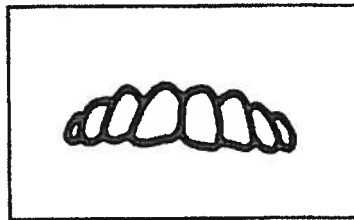
White-faced breed developed in New Zealand from Lincoln and Leicester x Merino crosses. These medium-sized sheep are prolific, good mothers that produce good market lambs and yield heavy, medium-wool fleeces with good staple length.

CORRIEDALE

This small- to medium-sized, fine-boned breed is open faced and produces medium-grade, good staple length wool. Reaching sexual maturity early, ewes have strong maternal instincts and are very prolific - producing 2 to 4 lambs each lambing.

FINNSHEEP

Determining Age

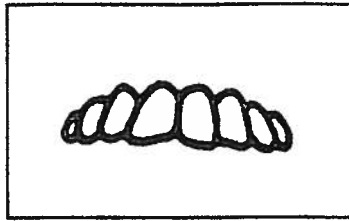


North Central Region Publication #300

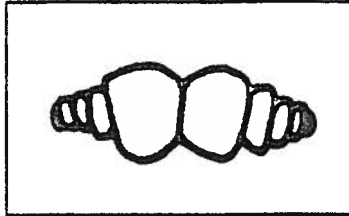
Figure 9

Determining Age

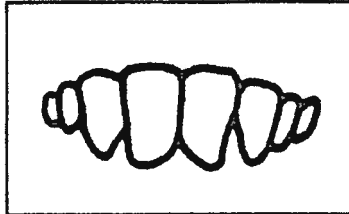
Lamb's teeth



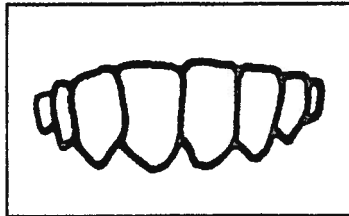
Yearling's teeth



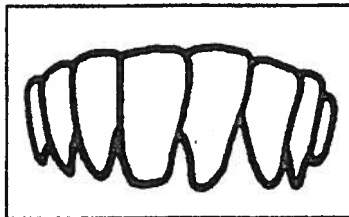
2-year-old's teeth



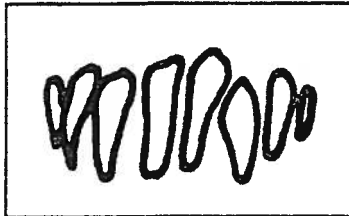
3-year-old's teeth



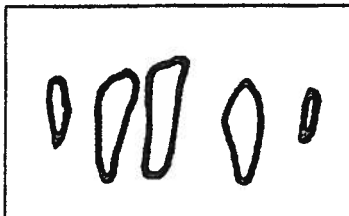
4-year-old's teeth



Narrower, worn teeth of an older sheep



"Broken" mouth



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Figure 9

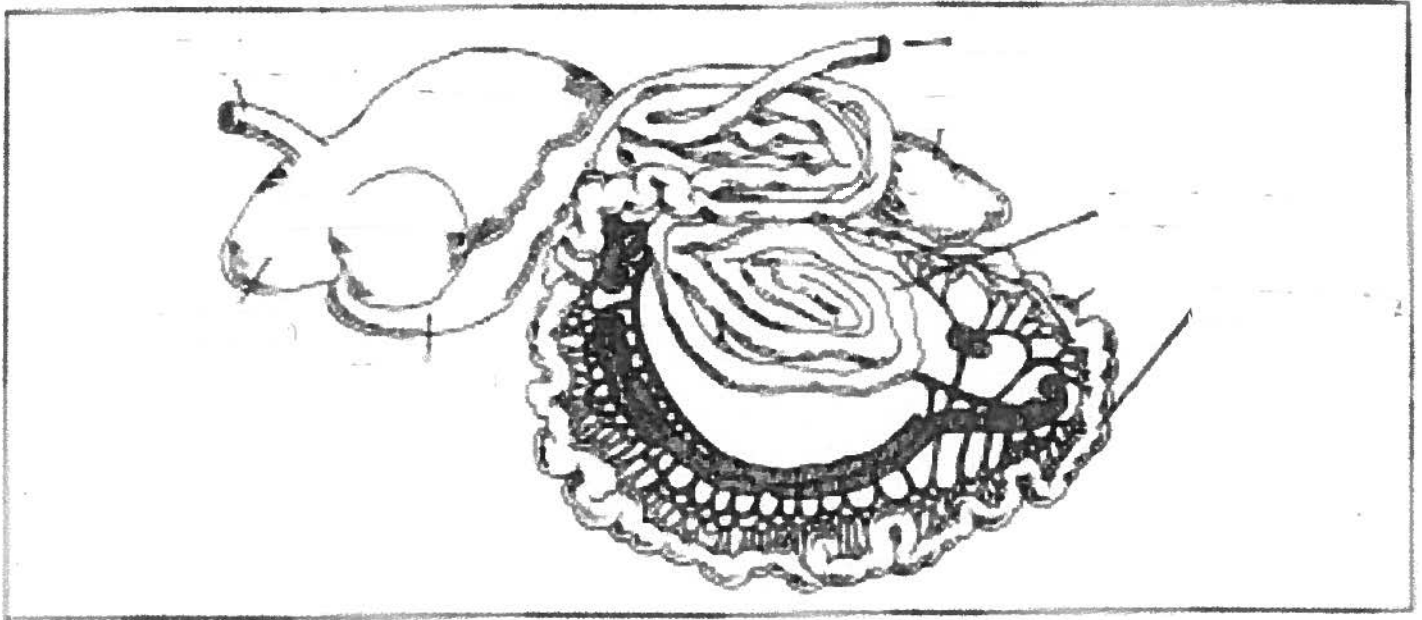


Figure 57
Essential Parts of a Ruminant Digestive System

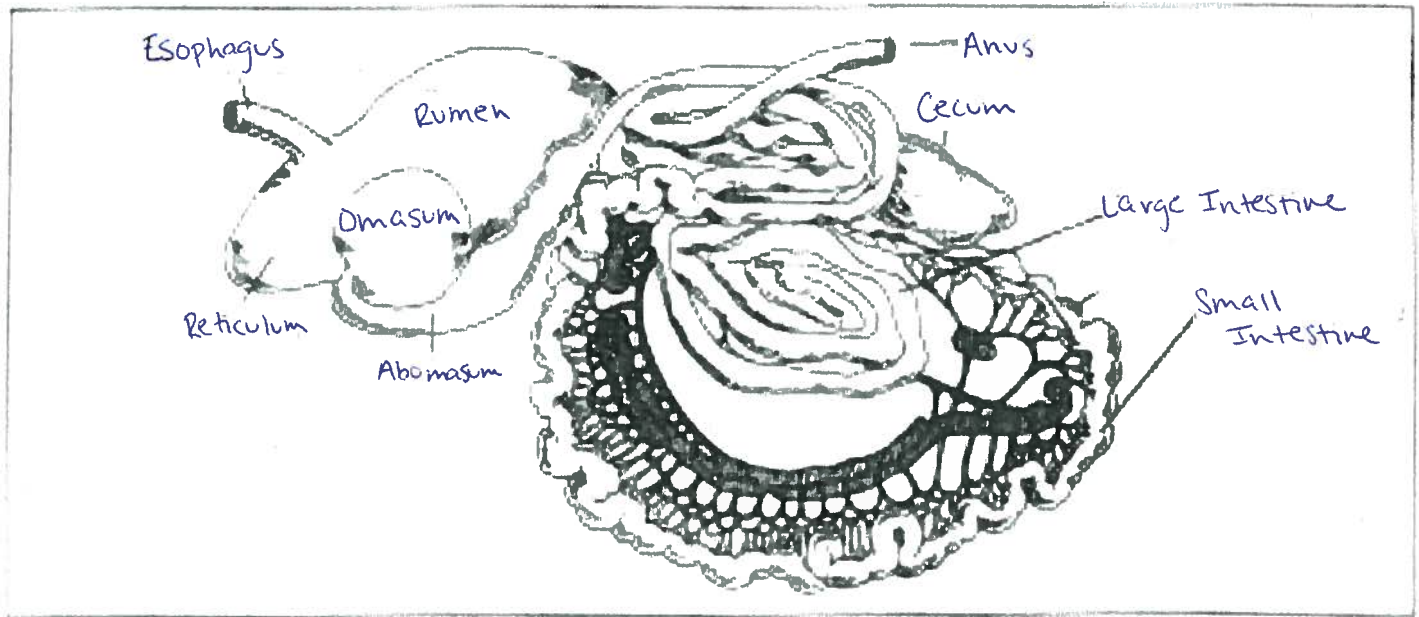


Figure 57
Essential Parts of a Ruminant Digestive System

Medication Label

_____ **OMNIBIOTIC** _____

(hydrocillin) _____

Directions for use: See package insert

Warning: The use of this drug must be discontinued for 30 days before treated animals are slaughtered for food. Exceeding the highest recommended dosage level may result in antibiotic residues in meat or milk beyond the withdrawal time.

Store between 2° and 8° C (36° and 46° F) _____
Keep dry and keep away from light

_____ Net Contents: 100 ml

Distributed by

USA Animal Health, Inc. _____

TAKE TIME



OBSERVE LABEL
DIRECTIONS



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Medication Label

Name of Drug _____

OMNIBIOTIC

(hydrocillin) _____ Active Ingredients

Directions for use: See package insert

Warning: The use of this drug must be discontinued for 30 days before treated animals are slaughtered for food. Exceeding the highest recommended dosage level may result in antibiotic residues in meat or milk beyond the withdrawal time.

Withholding Times _____

Store between 2° and 8° C (36° and 46° F) _____ Storage
Keep dry and keep away from light

Quantity of Contents _____

Net Contents: 100 ml

Distributed by

USA Animal Health, Inc. _____ Name of Distributor



OBSERVE LABEL DIRECTIONS



LEARNING LABORATORY KIT

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Glossary

—The amount of weight gained each day.

$$\text{ADG} = \frac{\text{Present weight} - \text{previous weight}}{\text{Number of days between weights}}$$

—A ration containing nutrients in the correct proportion to nourish the animal properly for 24 hours.

—A feed high in energy and low in fiber.

—A measurement of the amount of protein in a feedstuff or the amount of protein the animal needs.

—The required amount and proportion of nutrients for an animal. A diet is a formulated set of nutrients that is based on the animal's requirements.

—The changes in a feed that must take place before the nutrients can be absorbed and used by the animal.

—Feed ingredient that is not a protein but which contains nitrogen (an example is urea)

—A feed that contains a high density of protein and is used to supply additional protein in the ration.

—A substance that an animal needs for support of life or growth.

—The amount of feed given to an animal in a 24-hour period.

—A feed high in fiber and somewhat low in energy.

—A measure of energy in a feed or of how much energy an animal requires.

Glossary

Average Daily Gain—The amount of weight gained each day.

$$\text{ADG} = \frac{\text{Present weight} - \text{previous weight}}{\text{Number of days between weights}}$$

Balanced ration—A ration containing nutrients in the correct proportion to nourish the animal properly for 24 hours.

Concentrate—A feed high in energy and low in fiber.

Crude protein (CP)—A measurement of the amount of protein in a feedstuff or the amount of protein the animal needs.

Diet—The required amount and proportion of nutrients for an animal. A diet is a formulated set of nutrients that is based on the animal's requirements.

Digestion—The changes in a feed that must take place before the nutrients can be absorbed and used by the animal.

Nonprotein nitrogen (NPN)—Feed ingredient that is not a protein but which contains nitrogen (an example is urea)

Protein supplement—A feed that contains a high density of protein and is used to supply additional protein in the ration.

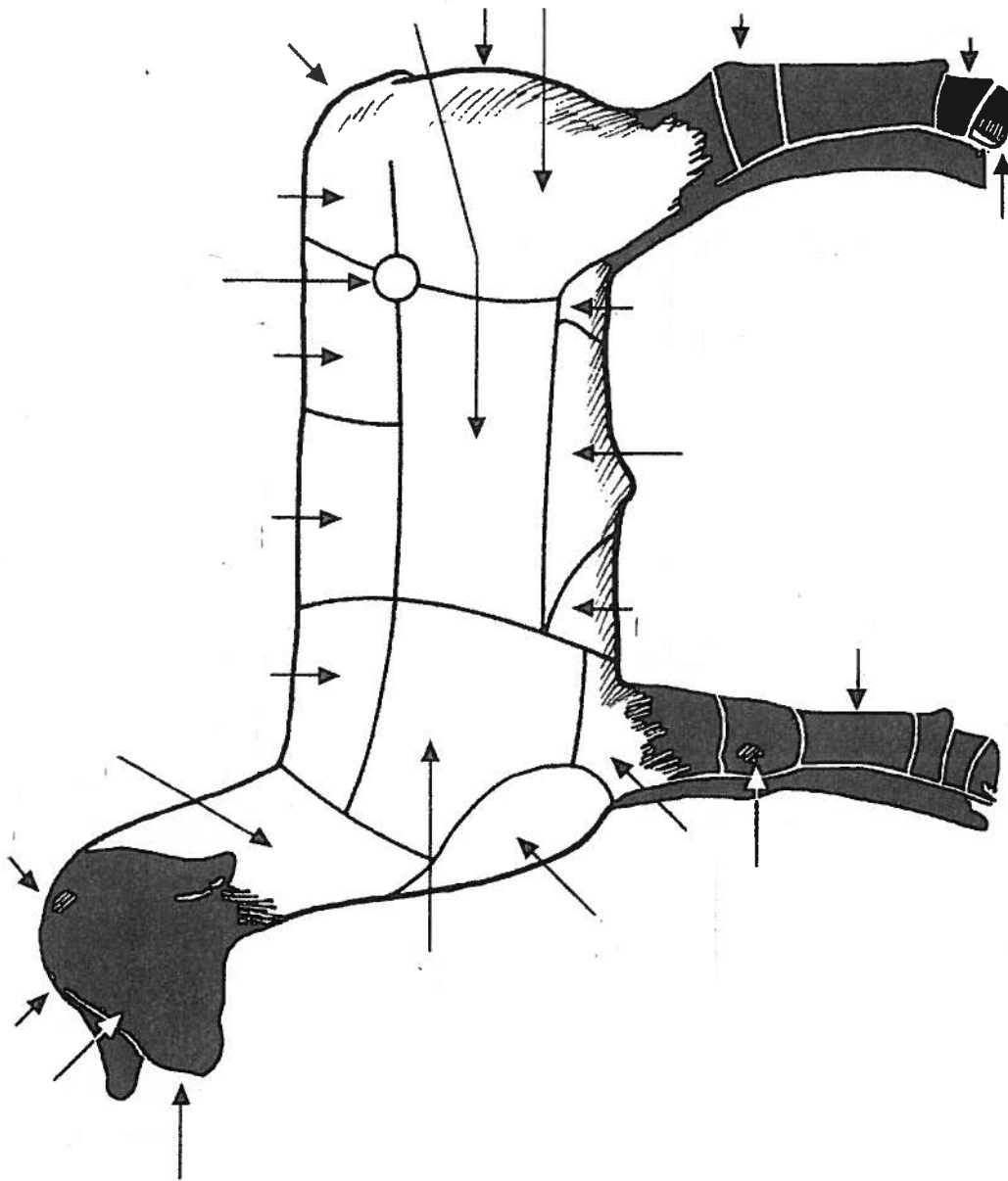
Nutrient—A substance that an animal needs for support of life or growth.

Ration—The amount of feed given to an animal in a 24-hour period.

Roughage—A feed high in fiber and somewhat low in energy.

Total digestible nutrients (TDN)—A measure of energy in a feed or of how much energy an animal requires.

Parts of a Sheep



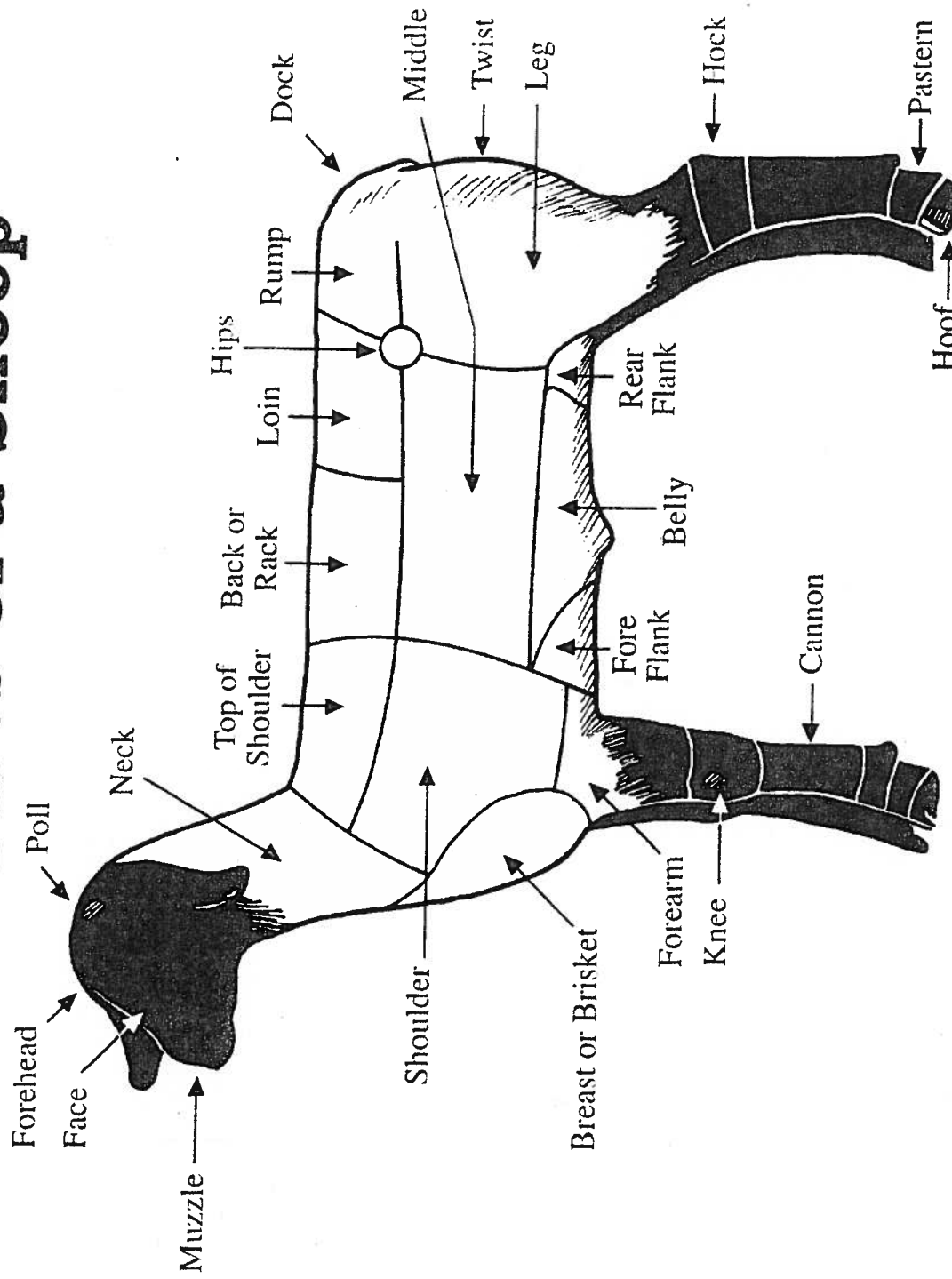
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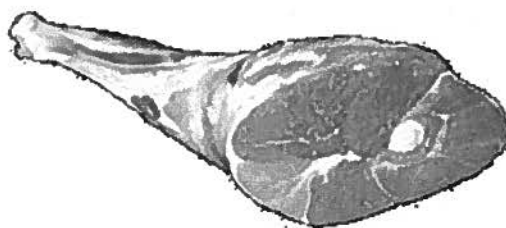
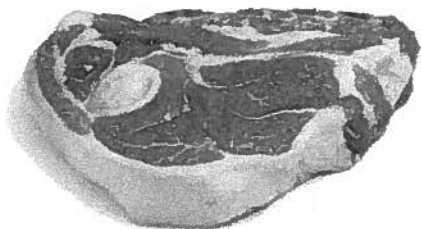
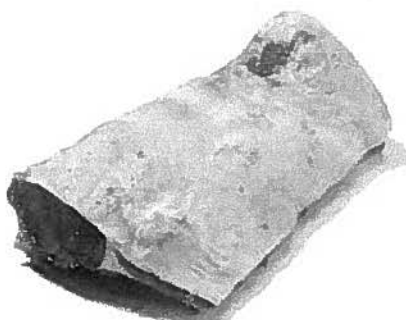
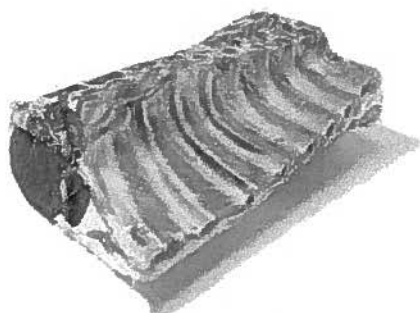
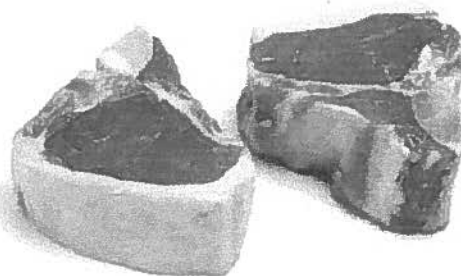
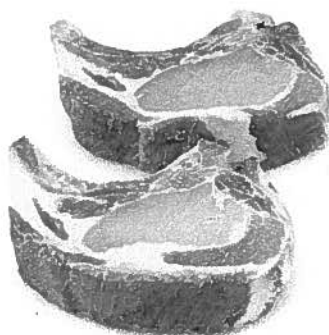
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Parts of a Sheep



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Double Loin Chop



Center Slice



Rib Chop



Loin Chop



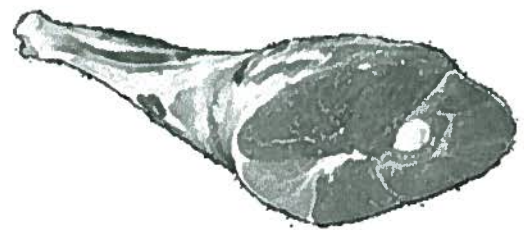
Rib (Roast)



Loin Roast



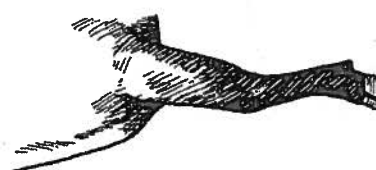
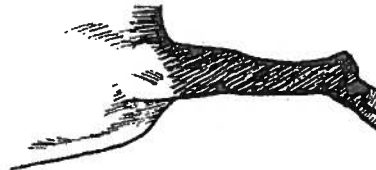
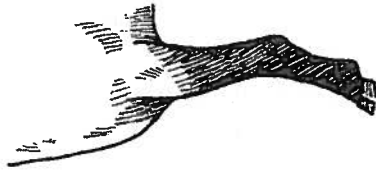
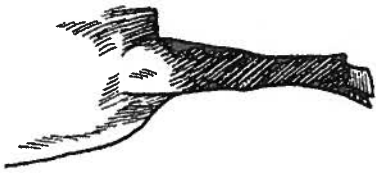
Arm Chop



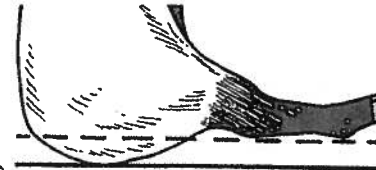
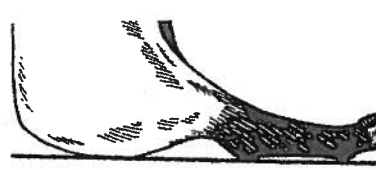
Shank Portion
Roast

Sheep Feet and Leg Structure

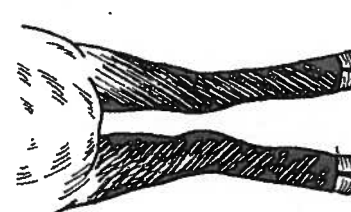
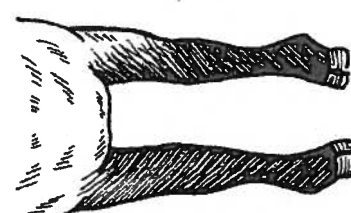
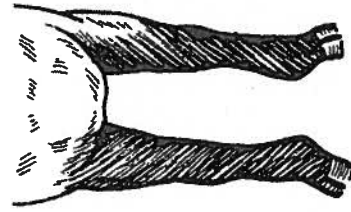
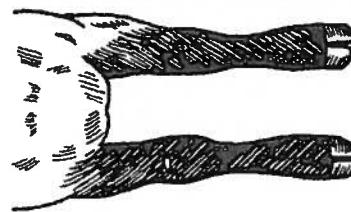
Side View Front Legs



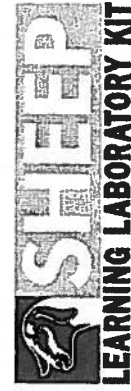
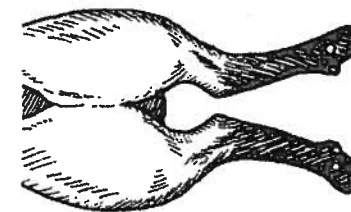
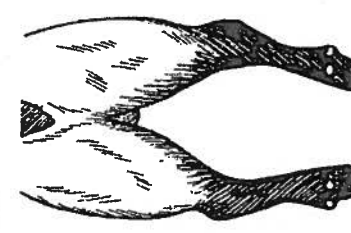
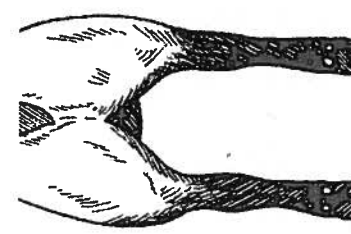
Side View Rear Legs



Front View



Rear View

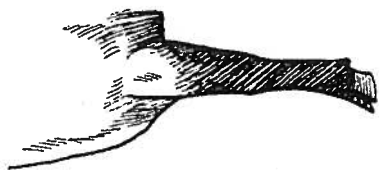


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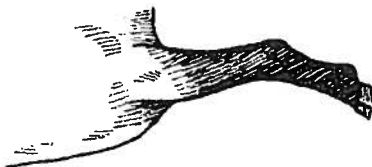
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Sheep Feet and Leg Structure

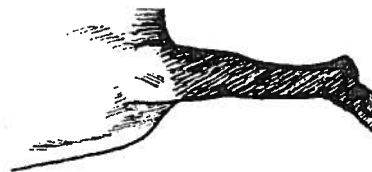
Side View Front Legs



CORRECT



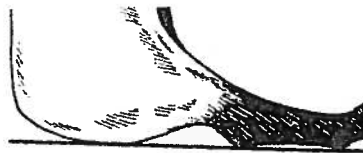
Calf-Kneed



Weak Pasterns



Buck-Kneed



CORRECT



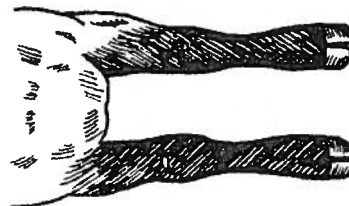
Sickle-Hocked



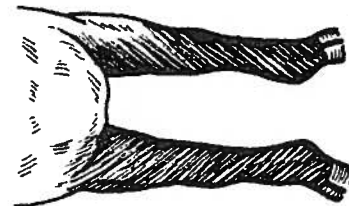
Post-Legged

Side View Rear Legs

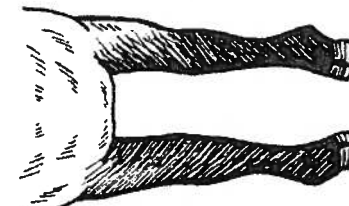
Front View



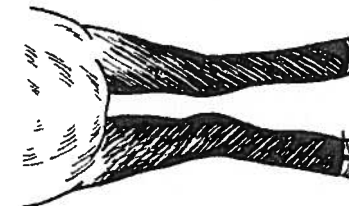
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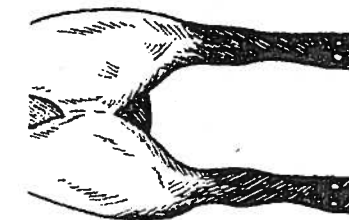
Splay-Footed



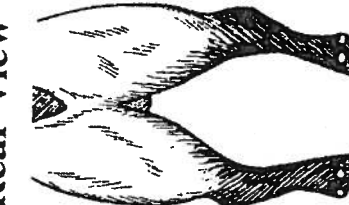
Pigeon-Toed



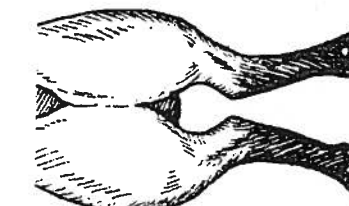
Knock-Kneed



CORRECT



Bowlegged



Cow-Hocked

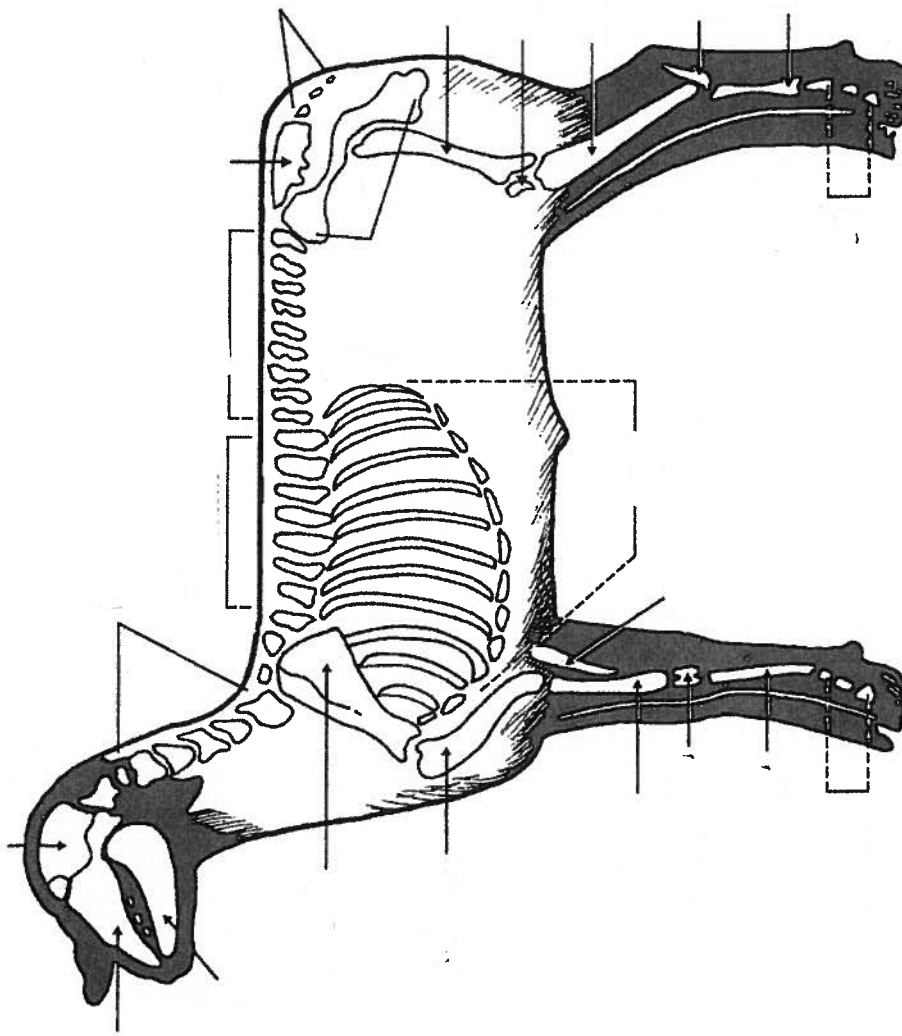
Rear View



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Sheep Skeletal System



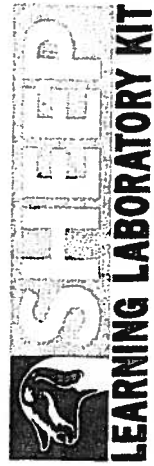
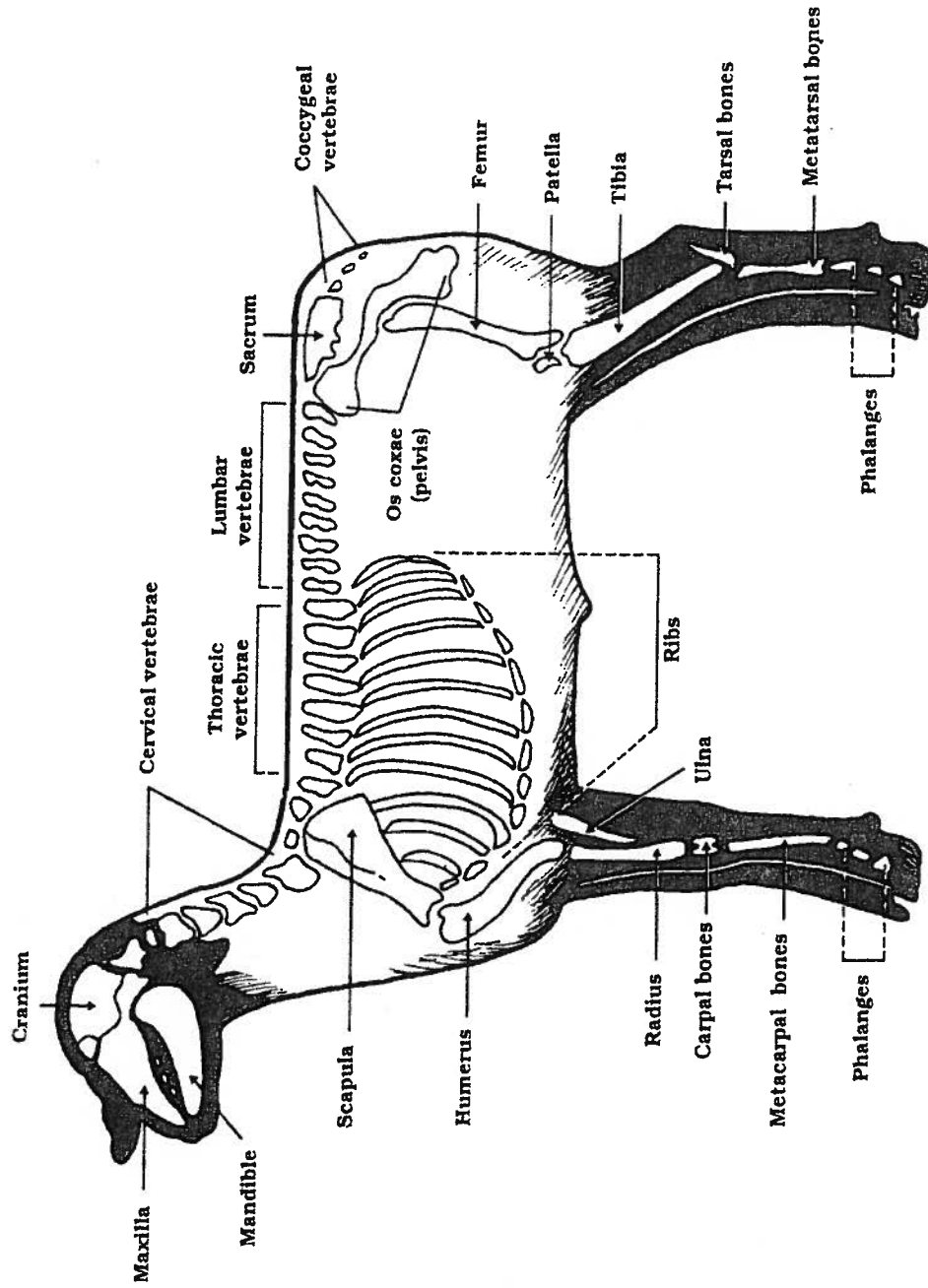
Sheep Skillathon



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Sheep Skeletal System



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Sheep Skillathon - Juniors
Six Pillars of Character

- Your lamb does not like to stand on the blocking stand to be sheared. The breeder, from whom you got your lamb, helps you shear your lambs. He tells you to hit your lamb to make it stand on the blocking stand. You tell him that it bruises the carcass of your lamb and will not hit your lamb. This is an example of_____.

 - Jill and Erica showed in the same showmanship class. Jill won third place in showmanship while Erica did not place. After the show, Erica congratulated Jill. This is an example of_____.

 - Mark has been working on his showmanship skills for three years now. He won 5th place in Junior Sheep Showmanship. Mark was very pleased with his best work, even though he didn't win first place. This is an example of_____.

 - Another junior fair department at the fair would like to have bigger trophies. However, the junior fair board cannot afford to buy bigger trophies for all junior fair departments so they tell the department that wants bigger trophies that they cannot have bigger trophies. This is an example of_____.

 - Emily and John are showing their market lambs in the same class. Suddenly, Emily's lamb gets away from her and runs throughout the show ring. John, while holding his lamb, grabs Emily's lamb. John did this partly because he would like someone to grab his lamb if it were to get away from him during the show. This is an example of_____.

 - After a wind storm came through the fairgrounds, the local 4-H club volunteered to rake up loose leaves that were all over the fairgrounds. This is an example of_____.
-

Sheep Skillathon - Juniors
Six Pillars of Character

Trustworthiness – being honest, standing up for what is right

- Your lamb does not like to stand on the blocking stand to be sheared. The breeder, from whom you got your lamb, helps you shear your lambs. He tells you to hit your lamb to make it stand on the blocking stand. You tell him that it bruises the carcass of your lamb and will not hit your lamb. This is an example of _____.

Respect – judge people on their merits or good things they do

- Jill and Erica showed in the same showmanship class. Jill won third place in showmanship while Erica did not place. After the show, Erica congratulated Jill. This is an example of _____.

Responsibility – do your best, be a good example.

- Mark has been working on his showmanship skills for three years now. He won 5th place in Junior Sheep Showmanship. Mark was very pleased with his best work, even though he didn't win first place. This is an example of _____.

Fairness – use the same rules or standards for everyone.

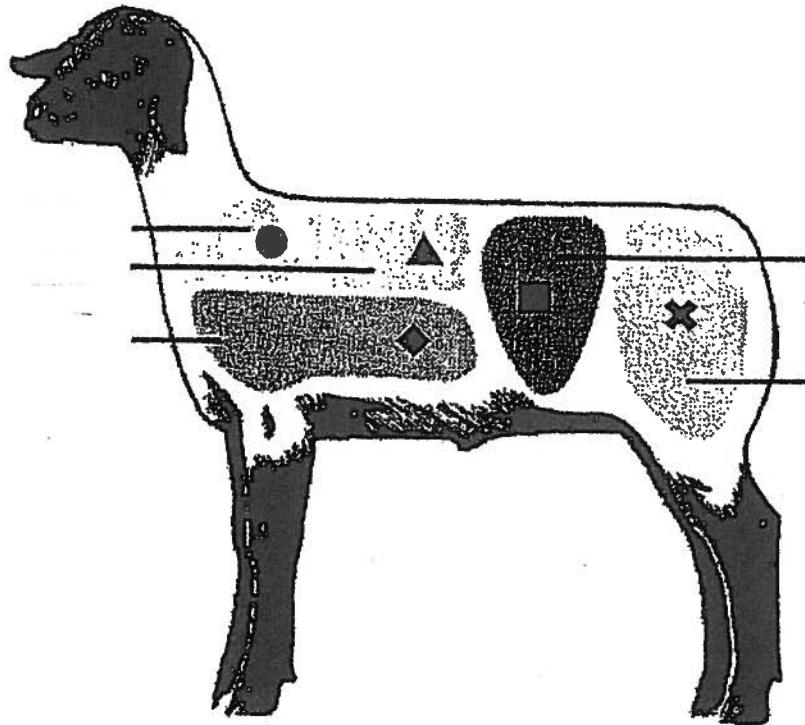
- Another junior fair department at the fair would like to have bigger trophies. However, the junior fair board cannot afford to buy bigger trophies for all junior fair departments so they tell the department that wants bigger trophies that they cannot have bigger trophies. This is an example of _____.

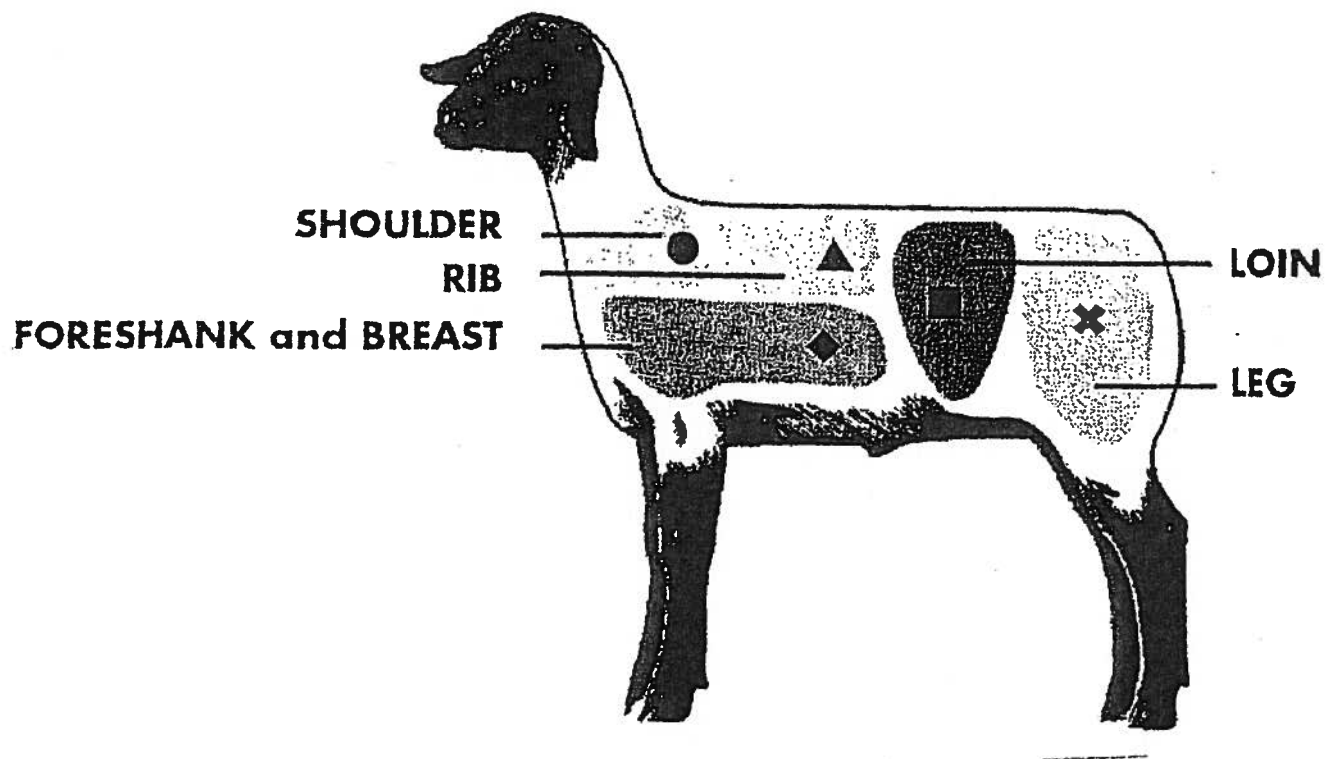
Caring – do unto others as you would have them do to you.

- Emily and John are showing their market lambs in the same class. Suddenly, Emily's lamb gets away from her and runs throughout the show ring. John, while holding his lamb, grabs Emily's lamb. John did this partly because he would like someone to grab his lamb if it were to get away from him during the show. This is an example of _____.

Citizenship – being committed to the welfare of your community, state, or country.

- After a wind storm came through the fairgrounds, the local 4-H club volunteered to rake up loose leaves that were all over the fairgrounds. This is an example of _____.





Genes

A.

If the sire and dam are both homozygous polled:

All offspring would be polled.

		P	Dam	P
	P	PP	PP	
Sire	P	PP	PP	

B.

Sire and dam both horned:

All offspring will be horned

		<i>p</i>	Dam	<i>p</i>
Sire	<i>p</i>	<i>pp</i>		<i>pp</i>
	<i>p</i>	<i>pp</i>		<i>pp</i>

C.

Both sire and dam heterozygous polled:

Offspring will be:

$\frac{3}{4}$ polled

$\frac{1}{4}$ horned

		P	Dam	p
Sire	P	PP	Pp	
	p	Pp	pp	

D.

Sire homozygous polled, dam heterozygous polled:

All offspring would be polled.

		P	Dam	p
Sire	P	PP	Pp	
	P	PP	Pp	

E.

Sire homozygous polled, dam horned:

All offspring will be polled

		<i>p</i>	Dam	<i>p</i>
	P	P <i>p</i>	P <i>p</i>	
Sire	P	P <i>p</i>	P <i>p</i>	

Table 16

How Sex is Determined

$\frac{1}{2}$ female
 $\frac{1}{2}$ male
offspring

		X Dam X	
Sire	X	XX	XX
	Y	XY	XY

Table 17

Applying Genetic Principles To Your Flock

- Set a goal. Decide what you want to achieve genetically with your flock.
- Select a breed that will allow you to meet your goals. Discuss this with your advisor and other producers.
- Choose good animals within the breed for your flock. Decide which traits are most important to you in meeting your goals.
- Keep accurate records of each ewe's production and each lamb's growth performance.

To be successful in genetic selection, develop a clear idea about the merits of individual traits.

For selection to be effective the traits must be:

- **Heritable.** The traits must be capable of being transmitted from parents to offspring.
- **Variable.** Differences must exist between sheep for that trait.
- **Measurable.** The traits must be able to be measured so you can evaluate performance and progress.